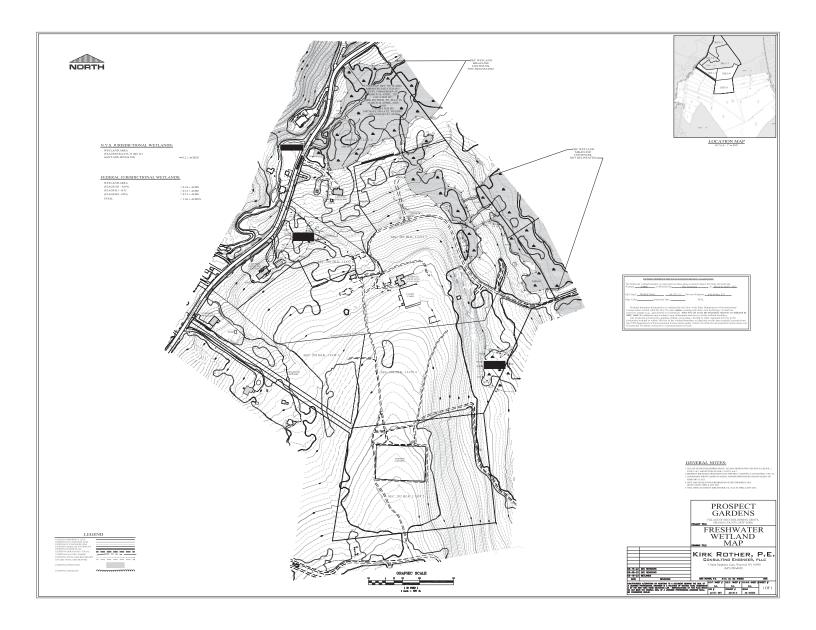
# Attachment I

Freshwater Wetlands Map



# Attachment II

Well Pump Test Data

1	Steve
Service Tech:   Service Tech	Steve
Service Tech:           5         8960 State Route 22 Hillsdale, NY 12529           6         518-828-6267           7         Customer:         PN General Contracting           8         Job Site:         Days Group Well B           9         Date:         1/20/2023           10         Well Flow:         6 gallons per minute           11         Flow Test Results           13         2'           14         Time         Elapsed time         Static Level         Pumping rate of pumping rate	Steve
5       8960 State Route 22 Hillsdale, NY 12529         6       518-828-6267         7       Customer:       PN General Contracting         8       Job Site:       Days Group Well B         9       Date:       1/20/2023         10       Well Flow:       6 gallons per minute         11       Flow Test Results         13       Elapsed time       Pumping rate         15       9:40 AM       2'       10.7         16       9:50 AM       10 min.       448.3'       18.6         17       10:00 AM       20 min.       450'       16.4         18       10:10 AM       30 min.       464.6'       15.0         19       10:20 AM       40 min.       464.2'       10.0         20       10:30 AM       50 min.       478.4'       8.0         21       10:40 AM       1 hour       488.8'       6.0         22       10:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	Steve
6         518-828-6267         PN General Contracting           7         Customer:         Days Group Well B           9         Date:         1/20/2023           10         Well Flow:         6 gallons per minute           11         Flow Test Results           13         Elapsed time         Static Level         Pumping rate           15         9:40 AM         2'         10.7           16         9:50 AM         10 min.         448.3'         18.6           17         10:00 AM         20 min.         450'         16.4           18         10:10 AM         30 min.         464.6'         15.0           19         10:20 AM         40 min.         464.2'         10.0           20         10:30 AM         50 min.         478.4'         8.0           21         10:40 AM         1 hour         488.8'         6.0           22         10:50 AM         1 hr. 10 min.         488.8'         6.0           23         11:50 AM         2 hrs. 10 min.         488.8'         6.0           24         12:50 PM         3 hrs. 10 min.         488.8'         6.0	
7         Customer:         PN General Contracting           8         Job Site:         Days Group Well B           9         Date:         1/20/2023           10         Well Flow:         6 gallons per minute           11         Flow Test Results           13         Elapsed time         Static Level         Pumping rate of	
8 Job Site:         Days Group Well B         1/20/2023           10 Well Flow:         6 gallons per minute           11 12 Flow Test Results         5 g:40 AM         2'         10.7           16 9:50 AM         10 min.         448.3'         18.6           17 10:00 AM         20 min.         450'         16.4           18 10:10 AM         30 min.         464.6'         15.0           19 10:20 AM         40 min.         464.2'         10.0           20 10:30 AM         50 min.         478.4'         8.0           21 10:40 AM         1 hour         488.8'         6.0           22 10:50 AM         1 hr. 10 min.         488.8'         6.0           23 11:50 AM         2 hrs. 10 min.         488.8'         6.0           24 12:50 PM         3 hrs. 10 min.         488.8'         6.0	
9         Date:         1/20/2023         6 gallons per minute           11         6 gallons per minute         9 gallons per minute           12         Flow Test Results         9 gallons per minute           13         14         Time         Elapsed time         Static Level         Pumping rate of pumping rate	
Well Flow:         6 gallons per minute           11         Flow Test Results           13         Time         Elapsed time         Static Level         Pumping rate           15         9:40 AM         2'         10.7           16         9:50 AM         10 min.         448.3'         18.6           17         10:00 AM         20 min.         450'         16.4           18         10:10 AM         30 min.         464.6'         15.0           19         10:20 AM         40 min.         464.2'         10.0           20         10:30 AM         50 min.         478.4'         8.0           21         10:40 AM         1 hour         488.8'         6.0           22         10:50 AM         1 hr. 10 min.         488.8'         6.0           23         11:50 AM         2 hrs. 10 min.         488.8'         6.0           24         12:50 PM         3 hrs. 10 min.         488.8'         6.0	
Time Elapsed time       Static Level       Pumping rate (         15       9:40 AM       2'       10.7         16       9:50 AM       10 min.       448.3'       18.6         17       10:00 AM       20 min.       450'       16.4         18       10:10 AM       30 min.       464.6'       15.0         19       10:20 AM       40 min.       464.2'       10.0         20       10:30 AM       50 min.       478.4'       8.0         21       10:40 AM       1 hour       488.8'       6.0         22       10:50 AM       1 hr. 10 min.       488.8'       6.0         23       11:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	
Flow Test Results           13         Elapsed time         Static Level         Pumping rate (           15         9:40 AM         2'         10.7           16         9:50 AM         10 min.         448.3'         18.6           17         10:00 AM         20 min.         450'         16.4           18         10:10 AM         30 min.         464.6'         15.0           19         10:20 AM         40 min.         464.2'         10.0           20         10:30 AM         50 min.         478.4'         8.0           21         10:40 AM         1 hour         488.8'         6.0           22         10:50 AM         1 hr. 10 min.         488.8'         6.0           23         11:50 AM         2 hrs. 10 min.         488.8'         6.0           24         12:50 PM         3 hrs. 10 min.         488.8'         6.0	
13         Time         Elapsed time         Static Level         Pumping rate (           15         9:40 AM         2'         10.7           16         9:50 AM         10 min.         448.3'         18.6           17         10:00 AM         20 min.         450'         16.4           18         10:10 AM         30 min.         464.6'         15.0           19         10:20 AM         40 min.         464.2'         10.0           20         10:30 AM         50 min.         478.4'         8.0           21         10:40 AM         1 hour         488.8'         6.0           22         10:50 AM         1 hr. 10 min.         488.8'         6.0           23         11:50 AM         2 hrs. 10 min.         488.8'         6.0           24         12:50 PM         3 hrs. 10 min.         488.8'         6.0	
14         Time         Elapsed time         Static Level         Pumping rate (           15         9:40 AM         2'         10.7           16         9:50 AM         10 min.         448.3'         18.6           17         10:00 AM         20 min.         450'         16.4           18         10:10 AM         30 min.         464.6'         15.0           19         10:20 AM         40 min.         464.2'         10.0           20         10:30 AM         50 min.         478.4'         8.0           21         10:40 AM         1 hour         488.8'         6.0           22         10:50 AM         1 hr. 10 min.         488.8'         6.0           23         11:50 AM         2 hrs. 10 min.         488.8'         6.0           24         12:50 PM         3 hrs. 10 min.         488.8'         6.0	
15       9:40 AM       2'       10.7         16       9:50 AM       10 min.       448.3'       18.6         17       10:00 AM       20 min.       450'       16.4         18       10:10 AM       30 min.       464.6'       15.0         19       10:20 AM       40 min.       464.2'       10.0         20       10:30 AM       50 min.       478.4'       8.0         21       10:40 AM       1 hour       488.8'       6.0         22       10:50 AM       1 hr. 10 min.       488.8'       6.0         23       11:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	
16       9:50 AM       10 min.       448.3'       18.6         17       10:00 AM       20 min.       450'       16.4         18       10:10 AM       30 min.       464.6'       15.0         19       10:20 AM       40 min.       464.2'       10.0         20       10:30 AM       50 min.       478.4'       8.0         21       10:40 AM       1 hour       488.8'       6.0         22       10:50 AM       1 hr. 10 min.       488.8'       6.0         23       11:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	gpm)
17       10:00 AM       20 min.       450'       16.4         18       10:10 AM       30 min.       464.6'       15.0         19       10:20 AM       40 min.       464.2'       10.0         20       10:30 AM       50 min.       478.4'       8.0         21       10:40 AM       1 hour       488.8'       6.0         22       10:50 AM       1 hr. 10 min.       488.8'       6.0         23       11:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	
18       10:10 AM       30 min.       464.6'       15.0         19       10:20 AM       40 min.       464.2'       10.0         20       10:30 AM       50 min.       478.4'       8.0         21       10:40 AM       1 hour       488.8'       6.0         22       10:50 AM       1 hr. 10 min.       488.8'       6.0         23       11:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	
19       10:20 AM       40 min.       464.2'       10.0         20       10:30 AM       50 min.       478.4'       8.0         21       10:40 AM       1 hour       488.8'       6.0         22       10:50 AM       1 hr. 10 min.       488.8'       6.0         23       11:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	
20       10:30 AM       50 min.       478.4'       8.0         21       10:40 AM       1 hour       488.8'       6.0         22       10:50 AM       1 hr. 10 min.       488.8'       6.0         23       11:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	
21       10:40 AM       1 hour       488.8'       6.0         22       10:50 AM       1 hr. 10 min.       488.8'       6.0         23       11:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	
22       10:50 AM       1 hr. 10 min.       488.8'       6.0         23       11:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	
23       11:50 AM       2 hrs. 10 min.       488.8'       6.0         24       12:50 PM       3 hrs. 10 min.       488.8'       6.0	
24 12:50 PM 3 hrs. 10 min. 488.8' 6.0	
25 1:50 PM 4 hrs. 10 min. 488.8' 6.0	
26 2:50 PM 5 hrs. 10 min. 488.8' 6.0	
27 3:50 PM 6 hrs. 10 min. 488.8' 6.0	
28 4:50 PM 7 hrs. 10 min. 488.8' 6.0	
29	
30	
31 Recovery	
32 Time   Elapsed time   Static Level   Recovery	ery Rate
33 4:51 PM 488.8'	
	15
	15
36     4:54 PM     3 min.     476.4'     6       37     4:55 PM     4 min.     472.1'     6.	5.3

	Α	В	С	D	Е	F	G	Н	
38	4:56 PM		5 min.			467.9'		6.3	
39	4:57 PM		6 min.			463.7'		6.3	
40	4:58 PM		7 min.			459.5'		6.3	
41	4:59 PM		8 min.			455.4'		6.15	
42	5:00 PM		9 min.			451.2'		6.3	

	А	В	С	D	E	F	G	Н	I
1							-		
2		2	TV STOVE	wolls					
3		VIII	CED						
4					c		Service 1	Tech:	Steve
5	8960 State	Route 22	Hillsdale, N	NY 12529					
6	518-828-62	67							
7	Customer: PN General Contracting								
8	Job Site:		Days Group V	Vell A					
9	Date:		1/23/2023						
10	Well Flow:		54 gallons pe	r minute					
11									
12	Flow Test R	esults	·						
13									
14	<u>Time</u>		Elapsed tim	<u>1e</u>	Static Le	evel	Pumping	g rate (gp	<u>m)</u>
15	9:00 AM				14.2'		125		
16	9:10 AM		10 min.		127.7'		111		
17	9:20 AM		20 min.		139.6'		111		
18	9:30 AM		30 min.		151.4'		85		
19	9:40 AM		40 min.		156.4'		85		
20	9:50 AM		50 min.		161.4'		54		
21	10:00 AM		1 hour		166.4'		54		
22	10:10 AM		1 hr. 10 min.		171.4'		54		
23	10:20 AM		1 hr. 20 mn.		176.4'		54		
24	10:30 AM		1 hr. 30 min.		181.8'		54		
25	10:40 AM		1 hr. 40 min.		181.8'		54		
26	11:30 AM		2 hrs. 30 min.		200.2'		54		
27	12:15 PM		3 hrs.15 min.		204.3'		54		
28	1:40 PM		4 hrs. 35 min.		244.2'		54		
29	3:40 PM		6 hrs. 35 min.		254.3'		54		
30	5:05 PM		8 hours		230'		54		
31									
32									
33	Recovery								
34	<u>Time</u>		Elapsed tim	<u>1e</u>		Static Le	evel	Recover	y Rate
35	5:06 PM					194.5'			
36	5:07 PM		1 min.			159.7'		52.5	
37	5:08 PM		2 min.			124.8'		52.5	

	Α	В	С	D	E	F	G	Н	I
38	5:09 PM		3 min.			89.1'		52.5	
39	5:10 PM		4 min.			54.6'		52.5	
40	5:11 PM		5 min.			194'		52.5	

	А	В	С	D	E	F	G	Н	I	
1							_			
2		2	notor.	wolls						
3			SED							
4				LL	C		Service 1	Tech:	Steve	
5	8960 State	Route 22	Hillsdale, N	IY 12529	1					
6	518-828-62	67								
7	Customer: PN Genteral Contracting									
8	Job Site:		Days Group V	Vell # 3						
9	Date:		1/19/2023							
10	Well Flow:		40 gallons pe	r minute						
11										
12	Flow Test R	esults								
13										
14	<u>Time</u>		Elapsed tim	<u>1e</u>	Static Le	<u>evel</u>	<u>Pumping</u>	g rate (gp	<u>m)</u>	
15	9:10 AM				18.6'		122.6			
16	9:20 AM		10 min.		115.9'		110.7			
17	9:30 AM		20 min.		118.6'		106.4			
18	9:40 AM		30 min.		229.4'		89			
19	9:50 AM		40 min.		282.9'		72			
20	10:00 AM		50 min.		327.7'		57			
21	10:10 AM		1 hour		343'		55			
22	10:20 AM		1 hr. 10 min.		358.5'		53			
23	10:30 AM		1 hr. 20 min.		370'		50			
24	10:40 AM		1 hr. 30 min.		378.1'		46			
25	10:50 AM		1 hr. 40 min.		386.3'		43			
26	11:50 AM		1 hr. 50 min.		389.3'		40			
27	12:50 PM		2 hrs. 50 min.		391.4'		40			
28	1:50 PM		3 hrs. 50 min.		386.4'		40			
29	2:50 PM		4 hrs. 50 min.		386.2'		40			
30	3:50 PM		5 hrs. 50 min.		385'		40			
31	4:50 PM		6 hrs. 50 min.		383'		40			
32										
33	Recovery									
34	<u>Time</u>		Elapsed tim	<u>1e</u>	Static Le	<u>vel</u>		Recover		
35	4:51 PM		4		383'			33		
36 37	4:52 PM 4:53 PM		1 min. 2 min.		361' 339'			33		
5/	4.33 PIVI		۷ ۱۱۱۱۱۱،		222			33		

	Α	В	С	D	E	F	G	Н	I
38	4:54 PM		3 min.		317'			33	
39	4:55 PM		4 min.		295'			33	
40	4:56 PM		5 min.		273'			33	
41	4:57 PM		6 min.		251'			33	
42	4:57 PM		7 min.		229'			33	
43	4:58 PM		8 mn.		207'			33	
44	4:59 PM		9 min.		185'			33	

# Attachment III Natural Resources Site Survey



June 9, 2023

Mr. Ozer Neiman Sky Equity Group, LLC 2 Skillman Street Brooklyn, New York 12205

Re: Threatened and Endangered Species Review
BG Gardens (Tax ID: 201-1-3, 201-1-4, 201-1-5, 201-1-6, 201-1-7)
Town of South Blooming Grove, Orange County, New York

Dear Mr. Neiman:

Pursuant to your request, North Country Ecological Services, Inc. (NCES) completed an ecological assessment of the above-referenced property in search of habitats that would be deemed conducive to the existence of the federally-listed Endangered, Threatened, and/or Rare (ETR) species of flora and fauna. In addition, NCES also assessed the property for the presence of individual ETR species and/or significant ecological communities, as identified by direct consultation with the United States Fish and Wildlife Service (USFWS) and the New York State Department of Environmental Conservation Natural Heritage Office (NHO).

The Endangered & Threatened Species Ecological Review included the following activities:

An in-house review of the USFWS IPaC website and the DEC's Environmental Resource Mapper (ERM) and Environmental Assessment Form (ESF). NCES received responses from USFWS and DEC's NHO on February 21, 2023 and March 28, 2023 respectively. On June 9, 2023, NCES requested an updated list from the USFWS so the most recent update to the Northern Long-eared bat is provided.

1) An on-site field review of the existing ecological communities, habitats, and indigenous flora/fauna present within the project area to determine the likelihood of endangered, threatened and/or rare species presence.

The information obtained from the USFWS and DEC identifies that the following species have the potential to be present at, or within the immediate vicinity, of the subject property:

• Northern Long-eared Bat (Myotis septentrionalis) – State and Federally Endangered

- Indiana Bat (*Myotis sodalis*) State and Federally listed Endangered
- Bog Turtle (Glyptemys muhlenbergii) State and Federally listed Endangered
- Small Whorled Pogonia (*Isotria medeoloides*) State and Federally listed Endangered

The USFWS response letter indicated that the Indiana Bat, Northern Long-eared Bat, Bog turtle, and Small whorled pogonia have the potential to be found on the property, based on its geographic location. The USFWS lists the Monarch Butterfly as a "Candidate Species". Candidate Species are defined by the USFWS as "plants and animals for which the U.S. Fish and Wildlife Service has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA)". However, it is also stated that currently, "Candidate Species receive no statutory protection under the ESA".

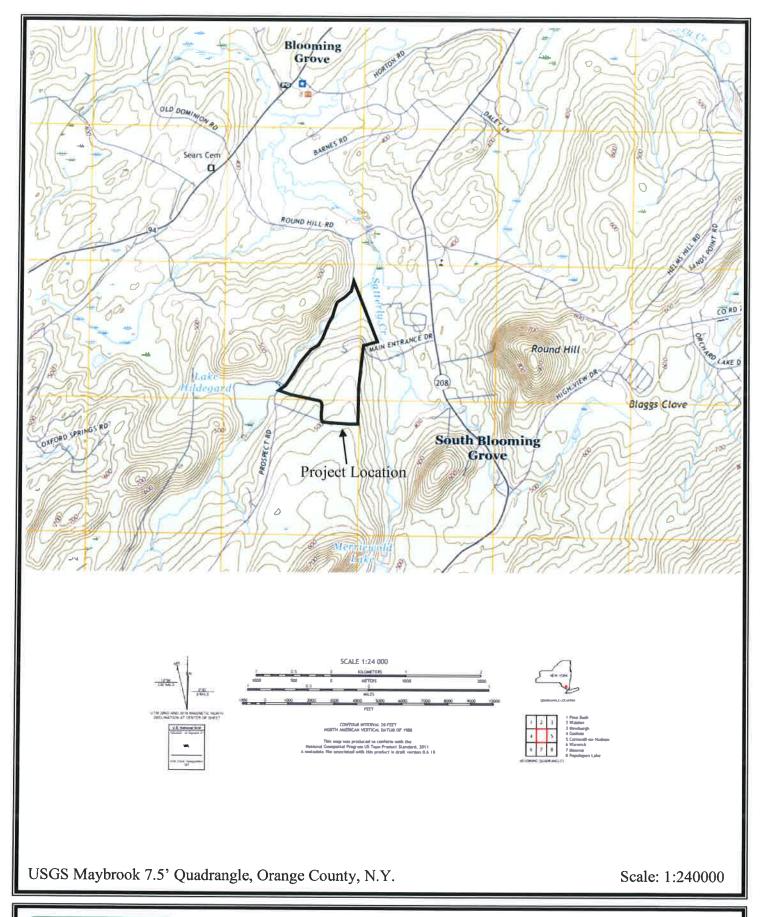
The New York State Dept. of Environmental Conservation (DEC) Environmental Resource Mapper (ERM) and the NYS Environmental Assessment Form Mapper (EAF) were consulted by NCES for species and community types of concern. The EAF response indicates that the Northern Long-ear and Indiana Bat have the potential to be present in the vicinity of the project site.

Based on the information from the USFWS and DEC, a field visit was warranted to determine if the subject property could support the species listed, and if the community types existed on/or near the subject property. On March 21, 2023, NCES conducted a field visit. The weather was 65° F and sunny.

### Site Location & Description

The subject property is located along the eastern side of Prospect Road and is accessed directly from Main Entrance Drive that connects to NYS Rt. 208, in the Town of South Blooming Grove, Orange County, New York (the "Site") (Figure 1). The Site is located approximately 4,796 feet to the south of the intersection of Prospect Road and Round Hill Road. The centralized coordinates are 41° 23' 24.68" (41.389) N Latitude and 74° 11' 10.95" (-74.188) W Longitude. The Tax Map ID of the parcel is 201-1-3, 201-1-4, 201-1-5, 201-1-6, 201-1-7.

The Site can be described as a vacant and fallow property. The majority of the property is comprised of undeveloped forested lands, fallow fields, and a vacant single-family residential farm house situated in the center of the Site. Old barns, concrete slabs from former agricultural buildings, a well house, and gardens were noted on the property.





Based on the definitions presented in the *Ecological Communities of New York State* (Edinger, 2014) the following ecological community has been identified on the property:

- Successional old field (Edinger)
- Successional southern hardwoods (Edinger)
- Palustrine forested wetland (Cowardin)
- Palustrine scrub-shrub wetland (Cowardin)
- Rocky headwater stream (Cowardin)

The majority of the property consisted of successional old field that has remained fallow for 10-20 years. The old fields contained many small diameter trees and shrubs as a result of a lack of utilization. Areas located around the periphery of the old farm were wooded and/or consisted of Palustrine wetlands. The approximate location and configuration of the ecological community types identified on the property are shown on the Vegetative Cover Types graphic (Figure 2). Satterly Creek, a perennial stream is located in the eastern portion of the property and contain Palustrine scrub-shrub, Palustrine emergent (off-site), and Palustrine forested wetland communities.

Lands to the east of the Site are undeveloped forested land. Lands located along Prospect Road and NYS Rt. 208 contain single-family residential housing. Lands to the north of the Site consist of undeveloped forested land, commercial development, and single-family housing. Lake Hildegard is located to the southwest of the Site. Photographs of the property, that were taken during the field assessment to document the existing conditions observed, are attached for your reference.

## **Existing Conditions**

#### Soils

According to the USDA Natural Resources Conservation Service Web Soil Survey 3.2 for Orange County, New York (the "Soil Survey"), five (5) soil types are found within the boundaries of the Site. These soils include: Erie gravelly silt loam, with 3 to 8 percent slopes (ErB); Erie extremely stony soils, gently sloping (ESB); Mardin gravelly silt loam (MdB, MdC, MdD); Nassau channery silt loam, with 15 to 25 percent slopes (NaD); and Wayland soils complex, non-calcareous substratum, with 0 to 3 percent slopes, frequently flooded (Wd) (Figure 3). A description of these soil types, was obtained directly from the Soil Survey and is provided below:



# Legend

SOF – Successional old field

SSH – Successional southern hardwood

PFO – Palustrine forested wetland

PSS – Palustrine scrub/shrub

Base Map: DEC Environmental Resource Mapper, Orange County, N.Y.



Scale: None



Natural Resources
Conservation Service

# **SOILS LEGEND**

ErB – Erie gravelly silt loam, with 3 to 8 percent slopes

ESB - Erie extremely stony soils, gently sloping

MdB – Mardin gravelly silt loam, with 3 to 8 percent slopes

MdC – Mardin gravelly silt loam, with 8 to 15 percent slopes

MdD – Mardin silt loam, with 15 to 25 percent slopes

NaD - Nassau channery silt loam, with 15 to 25 percent slopes

Wd – Wayland soils complex, non-calcareous substratum, with 0 to 3 percent slopes, frequently flooded

Base Map: Web Soil Survey 3.2 - Orange County Soil Survey, N.Y.



Scale: 1:3,240

The Soil Survey describes Erie gravelly silt loam (ErB), as being a deep, somewhat poorly-drained, gently sloping soil that contains a fragipan. Areas of this soil type formed in glacial till deposits derived from shale, slate, and sandstone. This soil is located on foot slopes, on lower hillsides, and along shallow drainageways, in the uplands of the County. Areas commonly receive runoff from higher adjacent soils. Included with this soil in mapping are small areas of moderately well-drained Mardin soils, found on slightly higher rises and knolls, and very poorly drained Alden soils located on a few small, concave, toe slopes. In a few areas there are large stones on the surface. The water table in this Erie soil is perched above the fragipan in spring and other wet periods. The permeability is moderate in the surface layer and upper part of the subsoil and slow or very slow in the pan and substratum. The runoff is medium and the available water capacity is moderate to low.

The Soil Survey describes Erie extremely stony soils, gently sloping (ESB), as deep, somewhat poorly drained, gently sloping soils. They are formed in glacial till deposits derived from shale, slate, and sandstone. These soils are located on lower hillsides, foot slopes, and hilltops along shallow drainage ways of upland areas. The slopes range from 3 to 8 percent. Areas are mostly round in shape and are usually 5 to 15 acres in size. Included with these soils are small areas of Mardin soil on slightly higher rises and knolls as well as Arden soils on few concave toe slopes. The water table is said to be perched above the fragipan in spring and other wet periods. The permeability is said to be moderate and the surface runoff is medium. The available water capacity is considered moderate to low.

The Soil Survey describes Mardin gravelly silt loam (MdB), as being a deep, moderately well-drained, gently sloping soil that has formed in glacial till deposits derived from sandstone, shale, and slate. Areas of this soil type are located on broad divides, hilltops, and ridges in uplands. Included with this soil unit in mapping are small areas of somewhat poorly-drained Erie soils, which are found in concave spots on foot slopes and along drainageways. In addition, well-drained bath soils are included on higher knolls and ridges. The water table is perched early in spring and in other excessively wet periods. The permeability is moderate in the surface layer and is slow or very slow in the fragipan and substratum. The available water capacity is moderate to low, and runoff is slow to medium.

The Soil Survey describes Mardin gravelly silt loam (MdC), as being a deep, moderately well-drained, sloping soil that formed in glacial till deposits derived from sandstone, shale, and slate. Areas commonly receive runoff from higher adjacent soils. This soil type has a dense fragipan in the lower part of the subsoil. Areas of this soil type are located on valley sides, hillsides, and ridges found in uplands. Included with this soil in mapping are small areas of the somewhat poorly-drained Erie soils, found on foot slopes and along drainageways. Also included are well-drained Bath soils that are located on higher knolls

and ridges. The water table is perched above the fragipan in early in spring and in other wet periods. The permeability is moderate in the surface layer and upper part of the subsoil and is slow or very slow in the pan and substratum. The available water capacity is moderate to low, and runoff is medium.

The Soil Survey describes Mardin gravelly silt loam, 15 to 25 percent slopes (MdD), as a deep, moderately well drained, sloping soil formed in glacial till deposits derived from sandstone, shale, and slate. It commonly receives runoff from higher adjacent soils. It has a dense fragipan in the lower part of the subsoil. It is on valley sides, hillsides, and valley sides in uplands. Included with this soil in mapping are small areas of the somewhat poorly drained Erie soils on foot slopes and along drainageways. Also included are well-drained Bath soils on a few higher knolls and ridges. A few spots are severely eroded, and in a few areas large stones are on the surface. The water table is perched above the fragipan in early in spring and in other excessively wet periods. The permeability is moderate in the surface layer and upper part of the subsoil and is slow or very slow in the pan and substratum. The available water capacity is moderate to low, and runoff is rapid.

The Soil Survey describes Nassau channery silt loam, with 15 to 25 percent slopes (NaD), as being shallow, somewhat excessively drained, and moderately steep soil that formed in glacial till deposits derived from slate and shale. Gravel and shale fragments make up 15 to 40 percent of this soil. Areas of this soil type are located on hillsides and valley sides in uplands. Areas of this soil type are generally long and narrow in shape and range from 5 to 15 acres in size. There is not any seasonal high-water table in this Nassau soil. The permeability is moderate. The available water capacity is very low or low and the surface water runoff is rapid. The depth to bedrock is 10 to 20 inches.

The Soil Survey describes Wayland silt loam non-calcareous substratum, 0 to 3 percent slopes, frequently flooded (Wd), as being a deep, poorly drained, and very poorly drained, nearly level soil that formed in silty alluvial deposits. Areas of this soil type are located on low floodplains adjacent to streams that overflow. Included with this soil in mapping are a few higher spots of the moderately well drained to somewhat poorly drained Middlebury soils. Also included are a few small areas of the very poorly drained Wallkill soils, which are underlain by organic deposits. A few spots where the surface layer is gravelly are identified by spot symbols on the soil map. This Wayland soil is commonly subject to flooding in spring. The water table is at or near the surface for prolonged periods during the year unless the soil is drained. The permeability is moderately slow or moderate in the surface layer and is slow in the subsoil and substratum. The available water capacity is high and the runoff is very slow.

# Vegetation

During the ecological review, NCES identified four (4) ecological community within the boundaries of the Site. These ecological communities are Successional old field, Successional southern hardwoods, Palustrine forested wetland, and Palustrine scrubshrub wetland. The dominant species of vegetation observed within each of the ecological communities identified are listed below:

The dominant species of vegetation observed within the Successional old field ecological community include, but are not limited to: spotted knapweed (Centura stoebe), wild carrot (Daucus carota), common milkweed (Asclepias syriaca), late goldenrod (Solidago gigantea), Canada goldenrod (Solidago canadensis), eastern red cedar (Juniperus virginiana), tatarian honeysuckle (Lonicera tatarica), common buckthorn (Rhamnus cathartica), autumn olive (Elaenagnus umbellate), upland bent grass (Agrostis perennans), Spreading Dogbane (Apocynum androsaemifolium), Common burdock (Arctium minus), orchard grass (Dactylis glomerata), Sweet-scented bedstraw (Galium triflorum), switch grass (Panicum virgatum), timothy grass (Phleum pratense), roughstemmed goldenrod (Solidago rugosa), mullein (Verbascum thapsus), and mugwort (Artemisia vulgaris).

The dominant species of vegetation observed within the Successional southern hardwoods ecological community include, but are not limited to: gray birch (Betula populifolia), black birch (Betula lenta), tree of heaven (Ailanthus altissima), hop hornbeam (Ostrya virginiana), muscle wood (Carpinus caroliniana), white oak (Quercus alba), tulip tree (Liriodendron tulipifera), black cherry (Prunus serotina), red pine (Pinus resinosa), sugar maple (Acer saccharum), red maple (Acer rubrum), Silver maple (Acer saccharinum), eastern red cedar (Juniperus virginiana), American beech (Fagus grandifolia), American elm (Ulmus americana), northern red oak (Quercus rubra), shagbark hickory (Carya ovata), Japanese honeysuckle (Lonicera japonica), common buckthorn (Rhamnus cathartica), Japanese barberry (Berberis thunbergii), tatarian honeysuckle (Lonicera tatarica), American witch hazel (Hammelis virginiana), grey dogwood (Cornus racemose), multiflora rose (Rosa multiflora), garlic mustard (Alliaria officinalis), common blue violet (Viola sororia), and riverbank grape (Vitis riparia).

Some of the dominant species of vegetation observed within the Palustrine forested ecological community included, but are not limited to: muscle wood (Carpinus caroliniana), American elm (Ulmus americana), sycamore (Acer pseudoplatanus), pin oak (Quercus palustris), red maple (Acer rubrum), Japanese honeysuckle (Lonicera japonica), red-osier dogwood (Cornus stolonifera), silky dogwood (Cornus amomum), grey dogwood (Cornus racemose), pussy willow (Salix discolor), alder (Alnus rugosa), wool grass (Scirpus cyperinus), (skunk cabbage (Symplocarpus foetidus), sensitive fern (Onoclea sensibilis), silt grass (Microstegium vimineum), tussock sedge (Carex stricta), cattail (Typha latifolia).

Some of the dominant species of vegetation observed within the Palustrine scrub-shrub ecological community included, but are not limited to: red maple (*Acer rubrum*), Japanese honeysuckle (*Lonicera japonica*), red-osier dogwood (*Cornus stolonifera*), silky dogwood (*Cornus amomum*), grey dogwood (*Cornus racemose*), steeplebush (*Spirea tomentosa*), pussy willow (*Salix discolor*), alder (*Alnus rugosa*), wool grass (*Scirpus cyperinus*), (skunk cabbage (*Symplocarpus foetidus*), sensitive fern (*Onoclea sensibilis*), silt grass (*Microstegium vimineum*), tussock sedge (*Carex stricta*), cattail (*Typha latifolia*).

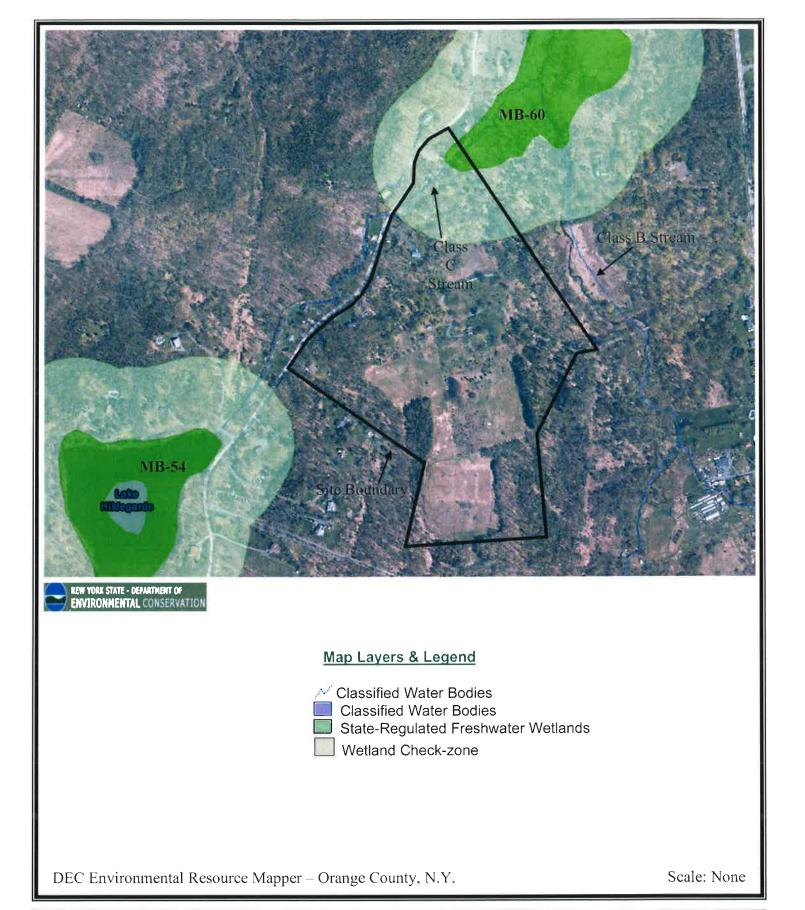
# **DEC & NWI Mapped Aquatic Resources**

The DEC website was reviewed by NCES to obtain information regarding the presence of Article 24 regulated wetlands and/or Article 15 regulated streams on, or within 100 feet of, the Site. Based on the review of the Freshwater Wetland mapping that was provided by the DEC's Environmental Resource Mapper (ERM), portions of Article 24 regulated wetland MB-60 are found within the northern and eastern portions of the Site. Also, one (1) DEC Class C Stream is located in the northern portion of the Site and is contained within a delineated wetland (Figure 4).

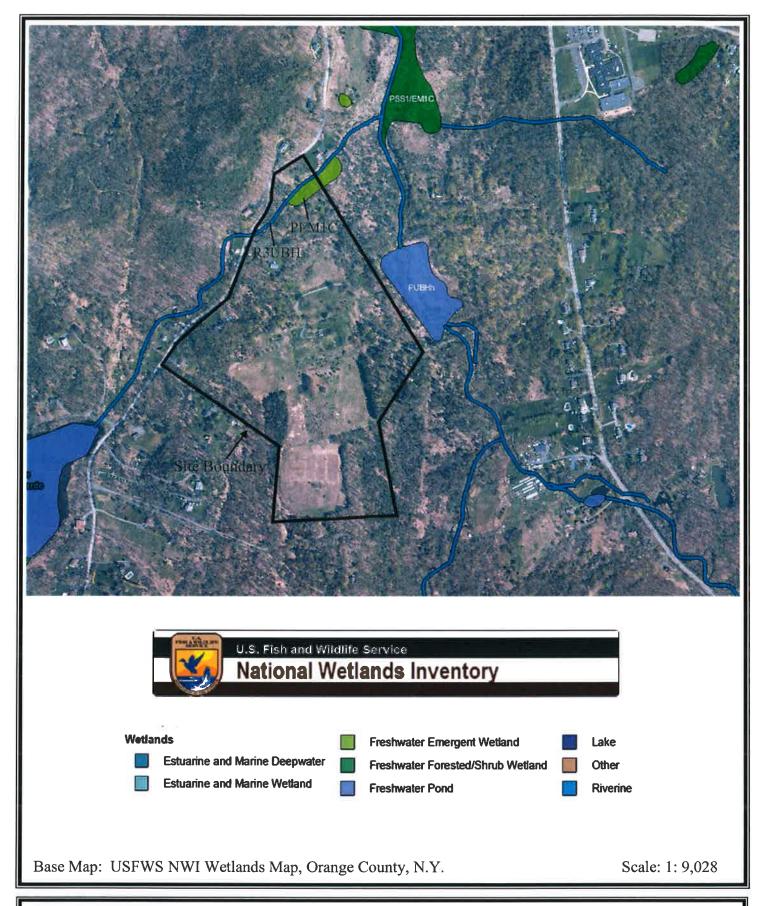
NCES reviewed the U.S. Fish and Wildlife Service (USFWS) website to determine if wetlands and/or other aquatic resources identified by the USFWS Aquatic Resource Mapping Program are present on the Site. Based on the information obtained from the National Wetland Inventory (NWI) Mapper, it was determined that two (2) NWI mapped aquatic resources are present within the boundaries of the Site (Figure 5). These NWI aquatic resource are described as R3UBH (Riverine, upper perennial, unconsolidated bottom, permanently flooded) and PEM1C (Palustrine, emergent, persistent, seasonally flooded). The emergent wetland is shown as a small component of the wetland that is located in the northern portion, and is a portion of DEC wetland MB-60. The formal wetland delineation mapping for the subject property is attached.

#### FEMA Flood Hazard Areas

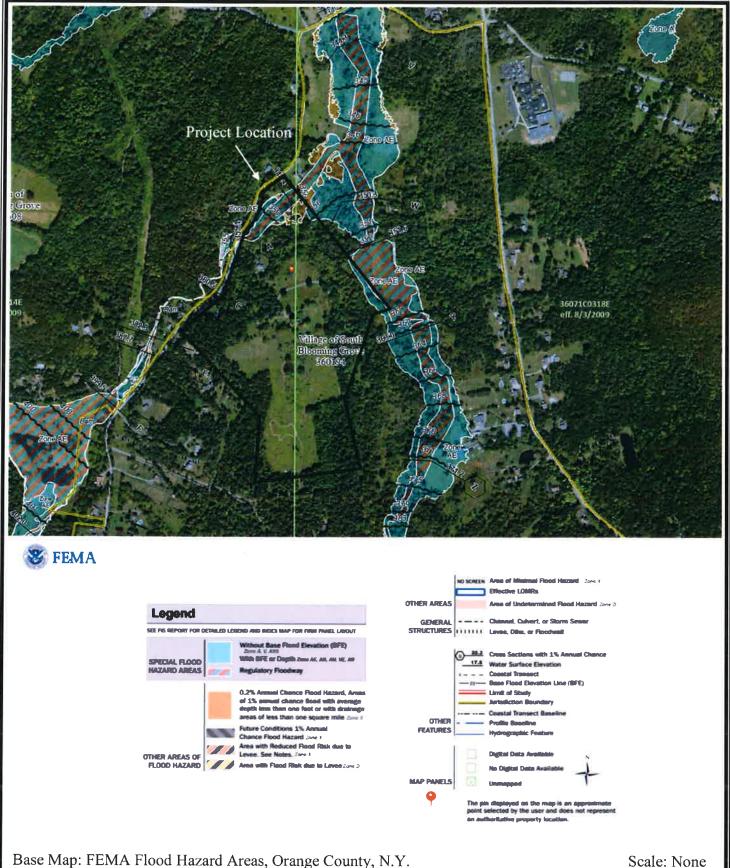
NCES reviewed the Federal Emergency Management Association (FEMA) Flood Hazard mapping for the Site, as required by the USACE reporting guidelines. Based on the information obtained from the FEMA website, and after the review of the Flood Insurance Rate Map (FIRM) provided, it has been determined that portions of designated flood Zonc AE are present within the boundaries of the Site (Figure 6).















# **Endangered/Threatened Species Field Assessment**

To complete the assessment, NCES utilized opportunistic visual survey methodologies as well as cover object search techniques. During the assessment, NCES compiled separate lists of the species of flora and fauna that were observed. Specific habitat assessments for those species referenced by the agency consultations are provided below:

# Northern Long-eared & Indiana Bat Habitat Assessment

The Northern Long-eared Bat (Myotis septentrionalis) and Indiana Bat (Myotis sodalist) are State and Federally Endangered species. The agencies identified that the two bat species may occupy the property solely based on the project's location within a general geographic area where the bats have been previously documented. To conduct the bat habitat assessment, NCES reviewed the property for trees that exhibit the characteristics of potential summer roosting sites, as well as for suitable foraging habitat. NCES also searched for any caves, mines, or other man-made structures that could be used as roosts, or as an over-wintering hibernaculum. NCES conducted the habitat analysis following the recommended procedures and protocols as outlined in the "Range-Wide Indiana Bat Survey Guidelines" provided by the USFWS.

According to the USFWS, suitable, potential summer habitat is characterized as forested communities that possess live and dead trees with, "loose bark, cavities or crevices" as well as within, "...cooler places like caves and mines". These bats have also been reported to be found roosting in, "structures like barns and sheds". Wintering habitat is defined as being within, "caves and mines" that possess, "large passages and entrances; constant temperatures; and high humidity with no air currents". Potential foraging habitat for the Northern Long-eared bat is defined as, "...understory of forested hillsides and ridges". This bat species is also known to glean, "motionless insects from vegetation and water surfaces".

During the site assessment, trees were identified that exhibit the characteristics of summer roosting habitat. The trees noted were mature in age or dead/dying and presented exfoliating bark, contained cavities, dead and dying limbs and other physical characteristics of summer roost trees. These trees included shagbark hickory (*Carya ovata*) dead green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), sugar maple (*Acer saccharum*), white oak (*Quercus alba*), and various oaks (*Quercus spp.*) were present throughout the Site. These trees exemplify summer roosting habitat due to their physical characteristic where bats can reside.

Suitable foraging habitat for bats was identified on-site during the assessment, as well as within the adjacent properties. Foraging habitat is comprised of various habitats that are relatively common within the general geographic region and include the canopy of the

forested uplands, over wetland communities, along riparian corridors, edge habitats of fields, and within the adjacent residential and commercially developed properties. Foraging habitat is widespread throughout the area as the bats are not selective as to where they find food.

## Bog Turtle Habitat Assessment

NCES conducted a Phase 1 Habitat Evaluation Assessment for the Bog Turtle (*Glyptemys muhlenbergii*) habitat utilizing the information contained within "Guidelines for Bog Turtle Surveys" (last revised April 2020), as contained within the "*Bog Turtle Northern Population Recovery Plan*" (USFWS, 2001) (the "BTNPRP"). According to the BTNPRP, suitable habitat for Bog Turtles includes Palustrine emergent or scrub-shrub wetlands that contain the following three criteria:

- 1) Suitable hydrology characterized as, "...Typically spring fed with shallow surface water or saturated soils present year-round...", "interspersed with dry and wet pockets...", "...sub-surface flow", and "...shallow rivulets (less than 4 inches deep) or pseudo rivulets are often present."
- 2) Suitable soils characterized as, "... a bottom substrate of permanently saturated organic or mineral soils." "These are often soft, mucky-like soils; you will usually sink to your ankles (3-5 inches) or deeper in muck, although in degraded wetlands or summers of dry years this may be limited to areas near spring heads or drainage ditches." "In some portions of the species range, the soft substrate consists of scattered pockets of peat instead of muck."
- 3) Suitable vegetation characterized as, "dominant vegetation of low grasses and sedges (in emergent wetlands), often with a scrub shrub component." "Common emergent vegetation includes, but is not limited to tussock sedge (Carex stricta), soft rush (Juncus effusus), rice cut grass (Leersia oryzoides), sensitive fern (Onoclea sensibilis), tearthumb (Polygonum spp.), jewelweed (Impatiens capensis), arrowheads (Sagittaria spp.), skunk cabbage (Symplocarpus foetidus), panic grasses (Panicum spp.), other sedges (Carex spp.), spike rushes (Eleocharis spp.), grass-of-Parnassus (Parnassia glauca), shrubby cinquefoil (Dasiphora fruticosa), sweet flag (Acorus calamus), and in disturbed sites, reed canary grass (Phalaris arundinacea) and purple loosestrife (Lythrum salicaria)." Common scrub-shrub species include alder (Alnus spp.), red maple (Acer rubrum), willow (Salix spp), tamarack (Larix laricina), and in disturbed sites, multiflora rose (Rosa multiflora). "Some forested wetland habitats are suitable, given hydrology, soils, and/or historic land use. These include red maple, tamarack, and cedar swamps."

During the Phase I Habitat Evaluation, NCES traversed the Site and assessed the property for aquatic resources that exhibit the three characteristic criteria of suitable Bog Turtle habitat. The wetlands had been formally delineated prior to NCES's field visit.

There were no wetlands present within boundaries of the Site that are indicative of Bog Turtle habitat. The wetlands and stream that are located in the eastern portion of the property and contain emergent wetlands and do not possess the necessary criteria for Bog Turtle habitat. All the wetlands inspected by NCES contained dense mineral soils that contained clayey and silty soils. The majority of the wetlands are hydrologically influenced by streams and surface water. Some portions of the wetlands were groundwater influenced as a result of groundwater weeps along the sloped areas. Based on the lack of organic mucky soils, groundwater upwelling, and suitable calciphytic vegetation, there is no suitable Bog Turtles habitat on the property.

# Small Whorled Pogonia Assessment

Small whorled pogonia is a perennial wildflower that possesses 1 or 2 yellowish flowers found on a stem that rises above a whorl of 5 or 6 green leaves (Niering and Olmstead, 1979). This plant is a member of the Orchid family (Britton and Brown, 1970). Small whorled pogonia grows to a height of only 4 to 10 inches (Niering and Olmstead, 1979). Small whorled pogonia is typically found in moist woods and flowers in May-July (Newcomb, 1977).

According to information provided by the USFWS website, "Small whorled pogonia can be limited by shade. The species seems to require small light gaps, or canopy breaks, and generally grows in areas with sparse to moderate ground cover." In addition, the USFWS also indicates that the "...orchid typically grows under canopies that are relatively open or near features that create long-persisting breaks in the forest canopy such as a road or a stream. It grows in mixed-deciduous or mixed-deciduous/coniferous forests that are generally in second or third growth successional stages."

During the site assessment, no Small Whorled Pogonia were identified. While this plant typically blooms in mid-June (Britton and Brown, 1970), the plant possesses a seed stalk and capsule, which are identifiable until seed dispersal in mid-October (Mass, ESP, 1993). Based on the existing conditions observed, the property does not contain suitable habitat that is associated with Small Whorled Pogonia. The ecological communities present at the property do not present conditions that are conducive to the existence of the species.

# Other Sensitive Species and Habitats

During the review, NCES did not observe any endangered or threatened species on the property. In addition, NCES did not identify any Species of Special Concern, or otherwise considered rare, as identified by the *New York Rare Animal* and/or *New York Rare Plant Lists* that have been established by the DEC. During the review, no ecologically significant or otherwise unique habitats were documented on, or immediately adjacent to, the property.

### Conclusion

On March 21, 2023, NCES visited the property and assessed the vegetative community types and species habitats within the boundaries of the Site. During the assessment, NCES walked the entire Site to assess the existing conditions, identify the individual ecological community types, and to document the species of flora and fauna. In addition, NCES actively searched for ETR species, as well as for habitats that would be deemed conducive to the presence of those species documented by the USFWS and NHO consultations. During the review, no endangered, threatened, or rare species of flora/fauna were observed. In addition, no significant ecological communities or otherwise rare/unique habitats were identified on, or immediately adjacent to, the subject property. The Site is a combination of undeveloped forested land containing portions successional old field. The property was once farmed and was maintained as a residential property subsequent to the active farming.

The on-site habitats are common within the general geographic region and are bordered by residential development and undeveloped forested land. There are no Critical Habitats observed within the property boundaries. Suitable summer roost trees and foraging habitat for bats was documented on the subject property. No Bog Turtle habitat was present within the on-site or adjacent wetlands. Since the majority of the Site was historically farmed, only the upland forested community would be considered potential habitat for small whorled pogonia. However, the understory of the forested areas are densely occupied by multiflora rose and other species which would inhibit the presence of small whorled pogonia. Therefore, the likelihood of its presence is low.

# Page Twelve

If you have any questions regarding this evaluation, please do not hesitate to contact NCES at any time.

Sincerely,

North Country Ecological Services, Inc.

Stephen P. George, PWS

President

Attachments

#### REFERENCES

- Cowardin, L.M., V. Carter, F.C. Gocet and E.T. Laroe. December 1979.
   Classification of Wetlands and Deepwater Habitats of the United States. USFWS Office of Biological Service, FWS/IOBL-79/31.
- Edinger, Gregory. 2014. Ecological Communities of New York State. New York Natural Heritage Program. 96 pgs.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, US Army Engineer Waterway Experiment Station, Vicksburg, Mississippi.
- Federal Emergency Management Agency. 1995. Flood Insurance Rate Map of Orange County New York. http://www.msc.fema.gov.
- New York State Department of Environmental Conservation. Environmental Resource Mapper. Article 24 Freshwater Wetland Mapping; Orange County, New York. On-line Resource Guide. http://www.state.ny.us.
- U. S. Department of Agriculture, Natural Resource Conservation Service. Web Soil Survey (version 3.2). Soil Survey of Orange County, New York. <a href="http://websoilsurvey.sc.egov.usda.gov">http://websoilsurvey.sc.egov.usda.gov</a>.
- U. S. Fish and Wildlife Service. National Wetlands Inventory. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands.



# United States Department of the Interior



### FISH AND WILDLIFE SERVICE

New York Ecological Services Field Office 3817 Luker Road Cortland, NY 13045-9385 Phone: (607) 753-9334 Fax: (607) 753-9699

Email Address: fw5es\_nyfo@fws.gov

In Reply Refer To:

June 09, 2023

Project Code: 2023-0091717 Project Name: BG Gardens

Subject: List of threatened and endangered species that may occur in your proposed project

location or may be affected by your proposed project

#### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

06/09/2023 2

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

**Migratory Birds**: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

# Attachment(s):

Official Species List

# **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office 3817 Luker Road Cortland, NY 13045-9385 (607) 753-9334

# **PROJECT SUMMARY**

Project Code: 2023-0091717 Project Name: BG Gardens

Project Type: New Constr - Above Ground
Project Description: Residential Housing Development

Project Location:

The approximate location of the project can be viewed in Google Maps: <a href="https://www.google.com/maps/@41.3896368">https://www.google.com/maps/@41.3896368</a>, 74.18671561012124,14z



Counties: Orange County, New York

# **ENDANGERED SPECIES ACT SPECIES**

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

# **MAMMALS**

NAME STATUS

Indiana Bat *Myotis sodalis* 

Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/5949

Northern Long-eared Bat Myotis septentrionalis

**Endangered** 

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>

# **REPTILES**

NAME STATUS

Bog Turtle *Glyptemys muhlenbergii* 

Threatened

Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6962">https://ecos.fws.gov/ecp/species/6962</a>

### **INSECTS**

NAME STATUS

Monarch Butterfly Danaus plexippus

Candidate

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>

# **FLOWERING PLANTS**

NAME STATUS

Small Whorled Pogonia Isotria medeoloides

Threatened

Population:

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1890">https://ecos.fws.gov/ecp/species/1890</a>

# **CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

06/09/2023

#### **IPAC USER CONTACT INFORMATION**

Agency:

North Country Ecological Services, Inc.

Name:

Stephen George

Address:

25 West Fulton Street

Address Line 2: Suite 3

Gloversville

City:

NY

State: Zip:

12078

Email

capt.stephen1007@gmail.com

Phone:

5185276175

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program 625 Broadway, Fifth Floor, Albany, NY 12233-4757 P: (518) 402-8935 | F: (518) 402-8925 www.dec.ny.gov

March 28, 2023

Stephen P. George North Country Ecological Services, Inc. 25 West Fulton Street Gloversville, NY 12078

Re: BG Gardens

County: Orange Town/City: Blooming Grove

Dear Stephen P. George:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 3 Office, Division of Environmental Permits, at dep.r3@dec.ny.gov.

Sincerely,

Heidi Krahling

Environmental Review Specialist New York Natural Heritage Program





## The following state-listed animals have been documented in the vicinity of the project site.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed.

For more information, including any permit considerations for the project, please contact the NYSDEC Region 3 Office, Division of Environmental Permits, at dep.r3@dec.ny.gov, (845) 256-3054.

The following species has been documented within 1.5 miles of the project site. Individual animals may travel 2.5 miles from documented locations. The main impact of concern is the cutting or removal of potential roost trees.

COMMON NAME SCIENTIFIC NAME NY STATE LISTING FEDERAL LISTING

**Mammals** 

Indiana Bat Myotis sodalis Endangered Endangered 12787

Hibernaculum

The following species has been documented within 1.5 miles of the project site. Individual animals may travel 5 miles from documented locations. The main impact of concern is the cutting or removal of potential roost trees.

COMMON NAME SCIENTIFIC NAME NY STATE LISTING FEDERAL LISTING

Mammals

Northern Long-eared Bat Myotis septentrionalis Threatened Threatened 14145

Hibernaculum

This report only includes records from the NY Natural Heritage database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.

3/28/2023 Page 1 of 1

#### Short Environmental Assessment Form Part 1 - Project Information

#### **Instructions for Completing**

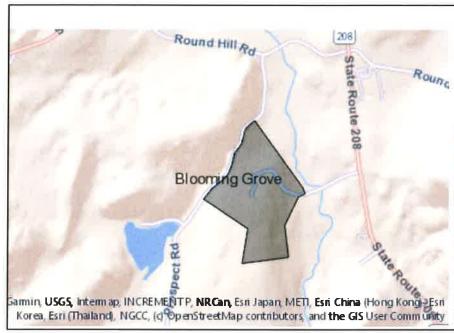
Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information			
Name of Action or Project:			
Project Location (describe, and attach a location map):			
Brief Description of Proposed Action:			
Name of Applicant or Sponsor:	Telephone:		
	E-Mail:		
Address:			
City/PO:	State:	Zip Code:	
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation?  If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.  2. Does the proposed action require a permit, approval or funding from any other government Agency?  NO YE If Yes, list agency(s) name and permit or approval:			
3. a. Total acreage of the site of the proposed action?  b. Total acreage to be physically disturbed?  c. Total acreage (project site and any contiguous properties) owned  or controlled by the applicant or project sponsor?  acres  acres			
4. Check all land uses that occur on, are adjoining or near the proposed action:  5. Urban Rural (non-agriculture) Industrial Commercia Forest Agriculture Aquatic Other(Spec		ban)	

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?			
b. Consistent with the adopted comprehensive plan?			
		NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?			
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		NO	YES
If Yes, identify:	=====	V	
		NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?			
b. Are public transportation services available at or near the site of the proposed action?		Ħ	
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?		靣	
9. Does the proposed action meet or exceed the state energy code requirements?		NO	YES
If the proposed action will exceed requirements, describe design features and technologies:			
10. Will the proposed action connect to an existing public/private water supply?		NO	YES
If No, describe method for providing potable water:			
11. Will the proposed action connect to existing wastewater utilities?		NO	YES
If No, describe method for providing wastewater treatment:			
		Ш	Ш
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district	rt	NO	YES
which is listed on the National or State Register of Historic Places, or that has been determined by the		V	
Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?			Ш
State Register of Friedrich Friedrich			
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?		~	
<ul><li>13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?</li><li>b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?</li></ul>		NO	YES
			V
			П
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres:			
		17.17	
			18am
		8 m 1	1

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:			
Shoreline Forest Agricultural/grasslands Early mid-successional			
□Wetland □ Urban □ Suburban			
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or	NO	YES	
Federal government as threatened or endangered? Indiana Bat, Northern Long			
16. Is the project site located in the 100-year flood plan?	NO	YES	
		~	
17. Will the proposed action create storm water discharge, either from point or non-point sources?	NO	YES	
If Yes,			
a. Will storm water discharges flow to adjacent properties?			
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe:			
18. Does the proposed action include construction or other activities that would result in the impoundment of water	NO	YES	
or other liquids (e.g., retention pond, waste lagoon, dam)?	NO	TES	
If Yes, explain the purpose and size of the impoundment:	П		
	Ш	السا	
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste	NO	YES	
management facility?  If Yes, describe:			
n res, describe.			
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or	NO	YES	
completed) for hazardous waste?  If Yes, describe:	_		
	<b>V</b>		
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE			
Applicant/sponsor/name:			
Signature:Title:			



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-uate urginal actor accounts the DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Areal

No

No

Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]

Part 1 / Question 12b [Archeological Sites] No

Part 1 / Question 13a [Wetlands or Other

Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.

Regulated Waterbodies]

Part 1 / Question 15 [Threatened or **Endangered Animal**]

Indiana Bat, Northern Long-eared Bat

Part 1 / Question 15 [Threatened or **Endangered Animal - Name**]

Part 1 / Question 16 [100 Year Flood Plain]

Yes

Part 1 / Question 20 [Remediation Site] No



**Photograph 1)** View looking northeast at the Palustrine scrub/shrub wetland found in the northern portion of the site.



**Photograph 2)** View looking open area (mowed) within the Palustrine forested wetland in the northern portion of the Site. Prospect Road is visible in the background.



**Photograph 3)** View looking at the Palustrine forested community in the northern portion of the subject property.



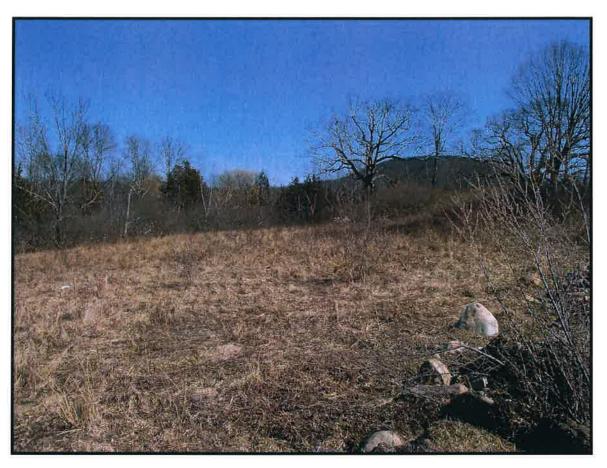
**Photograph 4)** View of an emergent component of the Palustrine forested wetland in the northern portion of the property.



**Photograph 5)** View of excavated area within the forested wetland. This appears to be a remnant feature of when the property was in active agriculture.



**Photograph 6)** View looking south at the transition between the upland forested wetland edge.



**Photograph 7)** View of the Successional old field that is found in the north-central portion of the property.



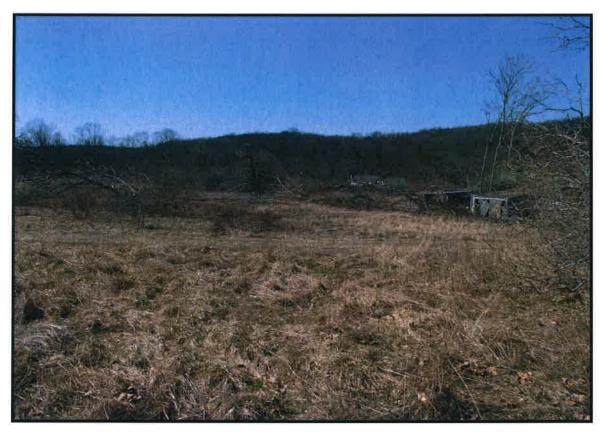
**Photograph 8)** View of the hydrologic connection of the Palustrine scrub/shrub wetland in the eastern portion of the property to the emergent component of DEC MB-60 located off-site and dominated by Phragmites.



**Photograph 9)** View of the Palustrine scrub/shrub wetland located along the eastern edge of the Site. A small emergent component exists within the center of shrub wetland.



Photograph 10) View of the edge of the shrub wetland and a groundwater component of the wetland.



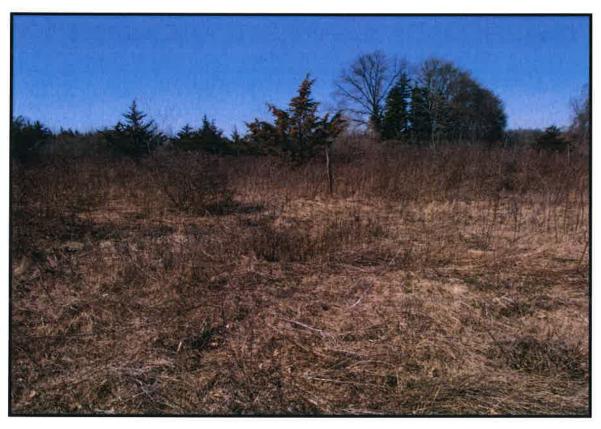
**Photograph 11)** View looking west at the center of the property, the old farm house, and the fallow farm fields.



Photograph 12) View of Successional old field located near the center of the property.



**Photograph 13)** View looking south at the southern portion of the property. Successional old field and remnants of a garden are visible.



Photograph 14) View looking northeast at the center of the property.

# Attachment IV Project Renderings









AB DESIGN
55 UNION ROAD SUITE 105
Spring Valley N.Y. 10977
P.845.425.7526
E-mait: info@abdesignusa.com
Website: www.abdesignusa.com

PROSPECT GARDENS

3D VIEW

A-500

No.	Description	Date	Project number 2020110
-			Date 8/10/2023 10:46:04 PM
			Drawn by Author
-			Checked by Checker



### Attachment V

NYS Historic Preservation Office Correspondence



ERIK KULLESEID
Commissioner

May 25, 2023

KATHY HOCHUL

Governor

Ozer Neiman Sky Equity Group LLC 2 Skillman Street, Suite 143 Brooklyn, NY 11205

Re: DEC

Prospect Gardens BG: Subdivision, Demolition, and New Construction

173 Prospect Rd, Blooming Grove, NY 10950

23PR04187

Dear Ozer Neiman:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

rev: J. Betsworth

## Attachment VI Traffic Impact Study



## Traffic Impact Study

May 19, 2023

Prospect Gardens
Village of South Blooming Grove, Orange County, New York

Prepared for:

**Sky Equity Group, LLC** 2 Skillman Street, Suite 413 Brooklyn, NY 11205 Prepared by:

Philip J. Grealy, Ph.D., P.E. New York Professional Engineer License No. 59858 **Colliers Engineering & Design** 

400 Columbus Avenue Suite 180E Valhalla New York 10595 Main: 877 627 3772 Colliersengineering.com

Project No. 23002830A



### Table of contents

i. Introduction	I
A. Project Description and Location	1
B. Scope of Study	1
H	
	2
	2
•	
B. 2023 Existing Traffic Volumes	2
3	3
C. ACCIDENT Data	
III. Evaluation of Future Traffic Conditions	4
A. 2026 No-Build Traffic Volumes	4
B. Site Generated Traffic Volumes	4
C. Arrival/Departure Distribution	
D. 2026 Build Conditions Traffic Volumes	
E. Description of Analysis Procedures	
	5
, , ,	5
F. Results of Analysis	
,	6
,	
·	
5. NYS Route 208 and Round Hill Road	
IV. Summary and Conclusion	g
Appendices	
Appendix A	FIGURES
Appendix B	
Appendix C	
Appendix D	
APPENDIX D	
APPENITIX F	ACCIDENT DATA



#### I. Introduction

#### A. Project Description and Location

(Figure No. 1)

This report has been prepared to evaluate the potential traffic impacts associated with the proposed Prospect Gardens residential development ("the Project"), which is planned to be developed on the property located along the east side of Prospect Road approximately 2,800± feet south of Round Hill Road in the Village of South Blooming Grove, Orange County, New York. The site is proposed to consist of a total of 174 dwelling units including 72 units in four multifamily buildings and 51 two-family structures (102 dwelling units) along with two community center buildings totaling approximately 67,500 square feet. As shown on Figure No. 1, access to the development is proposed via two driveway access connections from Prospect Road.

A Design Year of 2026 has been utilized in completing the traffic analysis in order to evaluate future traffic conditions associated with this proposed development.

#### B. Scope of Study

This study has been prepared to identify current and future traffic operating conditions on the surrounding roadway network and to assess the potential traffic impacts of the Project.

All available traffic count data for the study area intersections were obtained from previous reports prepared by our office. These data were supplemented with new traffic counts collected by representatives of Colliers Engineering & Design CT, P.C. These data were also compared to count data obtained from the New York State Department of Transportation (NYSDOT). Together these data were utilized to establish the Year 2023 Existing Traffic Volumes representing existing traffic conditions in the vicinity of the site.

The Year 2023 Existing Traffic Volumes were then projected to the 2026 Design Year to take into account background traffic growth. In addition, traffic for other specific potential or approved developments in the area were estimated and then added to the Projected Traffic Volumes to obtain the Year 2026 No-Build Traffic Volumes.

Estimates were then made of the potential traffic that the proposed development would generate during each of the peak hours (see Section III-C for further discussion). The resulting site generated traffic volumes were then added to the roadway system and combined with the Year 2026 No-Build Traffic Volumes resulting in the Year 2026 Build Traffic Volumes.

The Existing, No-Build and Build Traffic Volumes were then compared to roadway capacities based on the procedures from the Highway Capacity Manual to determine existing and future Levels of Service and operating conditions. Recommendations for improvements were made where necessary to serve the existing and/or future traffic volumes.



#### II. Existing Roadway and Traffic Descriptions

#### A. Description of Existing Roadways

As shown on Figure No. 1, the proposed residential development will be accessed from Prospect Road via two driveway connections. The following is a brief description of the roadways located within the study area. In addition, Section III-F provides a further description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service and any recommended improvements for each of the study area intersections. Appendix "D" contains copies of the capacity analyses which indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

#### 1. Prospect Road

Prospect Road is a two-lane local roadway that travels in a north/south direction. It begins at its intersection with Craigville Road (Route 51) continuing east intersecting with Peddler Hill Road at a "T" type intersection. It continues north where it terminates at its intersection with Round Hill Road. Prospect Road has no striping, shoulders, sidewalks, or on-street parking present and serves primarily residential areas. The posted speed limit in this area is 30 MPH.

#### 2. Round Hill Road

Round Hill Road is a local two-lane roadway that travels in generally an east/west direction. Round Hill Road begins at its intersection with NYS Route 94 and traverses east where it terminates at its intersection with Clove Road (Route 27). Round Hill Road has a double yellow centerline and white edge (fog) line with no shoulders. Sidewalks and on-street parking are not available, and the roadway serves primarily residential areas. Round Hill Road has a posted speed limit of 30 MPH.

#### 3. Peddler Hill Road

Peddler Hill Road is a local two-lane roadway that traverses in a generally northwest/southeast direction. The roadway begins at its "stop" sign-controlled intersection with Prospect Road and travels southeast where it terminates at its intersection with NYS Route 208. Peddler Hill Road has no striping, shoulders, sidewalks, or on-street parking and primarily serves residential areas. The roadway has a posted speed limit of 30 MPH.

#### 4. NYS Route 208

NYS Route 208 is a two-lane State roadway that travels in a generally northeast/southwest direction. NYS Route 208 had a double yellow centerline, white edge (fog) line, and paved shoulders of varying widths. Sidewalks and on-street parking are not provided in the area of the site and the roadway serves residential and commercial uses. NYS Route 208 has a posted speed limit of 45 MPH in this area.



#### B. 2023 Existing Traffic Volumes

(Figures No. 2 and 3)

Manual traffic counts were collected by representatives of Colliers Engineering & Design CT, P.C. on Tuesday, January 31, 2023 for the AM and PM Peak Hours to determine the existing traffic volume conditions at the study area intersections. These traffic counts were then compared to traffic volume data from previous traffic studies conducted by our office and to traffic volume data available from the New York State Department of Transportation (NYSDOT) for the NYS Route 208 corridor. Based on this information, the Year 2023 Existing Traffic Volumes were established for the Weekday Peak AM and Weekday Peak PM Hours at the following study area intersections.

- Prospect Road and Peddler Hill Road
- Prospect Road and Round Hill Road
- NYS Route 208 and Peddler Hill Road
- NYS Route 208 and Round Hill Road

In addition to the turning movement counts, Automatic Traffic Recorders (ATR's) were installed on Prospect Road for the period of January 30, 2023 through February 3, 2023 to identify existing vehicle travel speeds and any daily variations in traffic volumes.

Based upon a review of the traffic counts, the peak hours were generally identified as follows:

Weekday Peak AM Hour
 Weekday Peak PM Hour
 7:30 AM - 8:30 AM
 5:00 PM - 6:00 PM

The resulting Year 2023 Existing Traffic Volumes are shown on Figures No. 2 and 3 for the Weekday Peak AM Hour and Weekday Peak PM Hour, respectively.

#### C. Accident Data

(Table A, Appendix E)

Accident information was requested from NYSDOT for the latest 5-year period. The information is summarized in tabular form and contained in Appendix "E".



#### III. Evaluation of Future Traffic Conditions

#### A. 2026 No-Build Traffic Volumes

(Figure No. 4 through 9)

The Year 2023 Existing Traffic Volumes were increased by a growth factor of 2% per year to account for general background growth resulting in the Year 2026 Projected Traffic Volumes which are shown on Figures No. 4 and 5 for each of the Peak Hours. In addition, traffic from other specific potential developments in the area including the potential 201-203 Prospect Road Development and the recently approved Clovewood, South Blooming Grove Commercial (NYS Route 208 and Museum Village Road) Development, Stonegate Development, and 577 Route 208 Development, were specifically identified and accounted for in the traffic projections. The resulting traffic volumes associated with these other developments were summarized and are shown on Figures No. 6 and 7 for each of the peak hours. These volumes were added to the 2026 Projected Traffic Volumes resulting in the Year 2026 No-Build Traffic Volumes which are shown on Figures No. 8 and 9 for the Weekday Peak AM and Weekday Peak PM Hours, respectively.

#### B. Site Generated Traffic Volumes

(Table No. 1)

Estimates of the amount of traffic to be generated by the proposed residential development during each of the peak hours were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled "Trip Generation", 11th Edition, 2021, based on Land Use Category – 210 Single-Family Housing. Table No. 1 summarizes the trip generation rates and corresponding site generated traffic volumes for the Weekday Peak AM and Weekday Peak PM Hours. Traffic generation data collected for other existing projects in the Village of Kiryas Joel were also referenced for comparison.

#### C. Arrival/Departure Distribution

(Figures No. 10 and 11)

It was necessary to establish arrival and departure distributions to assign the site generated traffic volumes to the surrounding roadway network. Based on a review of the Existing Traffic Volumes and the expected travel patterns on the surrounding roadway network, the distributions were identified. The anticipated arrival and departure distributions are shown on Figures No. 10 and 11, respectively.

#### D. 2026 Build Conditions Traffic Volumes

(Figures No. 12 through 15)

The site generated traffic volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting site generated traffic volumes for each of the study area intersections are shown on Figures No. 12 and 13 for each of the peak



hours, respectively. The site generated traffic volumes were then added to the Year 2026 No-Build Traffic Volumes to obtain the Year 2026 Build Traffic Volumes. The resulting Year 2026 Build Traffic Volumes are shown on Figures No. 14 and 15 for the Weekday Peak AM and Weekday Peak PM Hours, respectively.

#### E. Description of Analysis Procedures

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

#### 1. Signalized Intersection Capacity Analysis

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

#### 2. Unsignalized Intersection Capacity Analysis

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

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

#### F. Results of Analysis

(Table No. 2)

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



Table No. 2 summarizes the results of the capacity analysis for the 2023 Existing, 2026 No-Build and 2026 Build Conditions. Appendix "D" contains copies of the capacity analysis which also indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

#### 1. Prospect Road and Peddler Hill Road

Prospect Road and Peddler Hill Road intersect at a "T" type intersection with Peddler Hill Road being stop-sign controlled. All approaches consist of one lane.

Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at a Level of Service "A" during the AM and PM Peak Hours.

The capacity analysis was recomputed using the 2026 No-Build and Build Traffic volumes. These results indicate that the intersection is expected to experience Levels of Service "A" during the AM and PM Peak Hours under future conditions.

At this intersection, while acceptable Levels of Service are expected to occur, it is recommended that regardless of the Project that new pavement markings be installed. These should include painted stop bar on the Peddler Hill Road approach and double-yellow centerline markings on all three approaches. In addition, to ensure adequate sight distances are maintained at the intersection, some clearing and pruning of vegetation should be completed within the right-of-way; especially for vehicles looking north and south along Prospect Road when they are stopped at Peddler Hill Road. These improvements should be coordinated with the Highway Superintendent.

#### 2. Prospect Road and Round Hill Road

Prospect Road and Round Hill Road intersect at a "T" type intersection with Prospect Road being stop-sign controlled. All approaches consist of one lane.

Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at a Level of Service "B" or better during the AM and PM Peak Hours.

The capacity analysis was recomputed using the 2026 No-Build and Build Traffic volumes. These results indicate that the intersection is expected to experience Levels of Service "B" or better during the AM and PM Peak Hours under future conditions.

Regardless of the Project, this intersection should be upgraded by clearing of vegetation along the north side of Round Hill Road immediately to the west of the intersection. This will improve sight distances for vehicles exiting as well as for the left turn movement from Round Hill Road onto Prospect Road. In addition, the existing stop -sign on the Prospect Road northbound approach should be supplemented with a painted stop bar, a double yellow centerline, and a "Stop Sign Ahead" sign (W 3-1) in advance of the intersection. Also,



on the Round Hill Road approaches, an "Intersection Ahead" sign should be installed (W 2-2). These signs should be installed on both the eastbound and westbound approaches.

#### 3. NYS Route 208 and Peddler Hill Road

The intersection of NYS Route 208 and Peddler Hill Road is a channelized intersection. NYS Route 208 and Peddler Hill Road intersect at an existing "Y" type intersection with Peddler Hill Road being stop-sign controlled. All approaches consist of one lane.

Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the left turn movements at this intersection are currently operating at a Level of Service "F" during the AM and PM Peak Hours.

The capacity analysis was recomputed using the 2026 No-Build and Build Traffic volumes. These results indicate that this movement is expected to continue to experience Levels of Service "F" or better during the AM and PM Peak Hours under future conditions.

Due to the heavy through traffic along NYS Route 208, it is recommended that a separate left turn lane be developed on NYS Route 208 northbound. This should be coordinated with the Village and NYSDOT. A detailed survey will be required to identify existing right-of way(s) and any other constraints to construct such a lane.

#### 4. Prospect Road and Proposed Site Access Connections

Prospect Road and the Site Access connections are proposed to intersect at "T" type intersections with all all approaches consisting of a single lane.

The capacity analysis was computed using the 2026 Build Traffic volumes. These results indicate that the intersection will experience Levels of Service "B" or better during the AM and PM Peak Hours under future conditions.

There are two proposed access connections to the site from Prospect Road. This will provide emergency access as well as full access at both locations. Exiting approaches should be controlled by stop-signs and to ensure adequate sight distances, based on the 85% speeds along the roadway (approximately 40 MPH), clearing of vegetation should be completed looking north and south of both access points. This should be within the existing right-of-way. In addition, at a minimum along this section of road, a double yellow centerline should be provided as well as a potential fog line. These will have to be coordinated with the Village Highway Superintendent.

#### 5. NYS Route 208 and Round Hill Road

NYS Route 208 and Round Hill Road intersect at a four-way intersection with the Round Hill Road approaches being stop-sign controlled. All approaches consist of one lane.

Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service "C" during the AM and PM Peak Hours.



The capacity analysis was computed using the 2026 No-Build and Build Traffic volumes. These results indicate that the intersection will experience Levels of Service "D" or better during the AM Peak Hour and "E" for the eastbound left turn movement during the PM Peak Hour under future conditions.

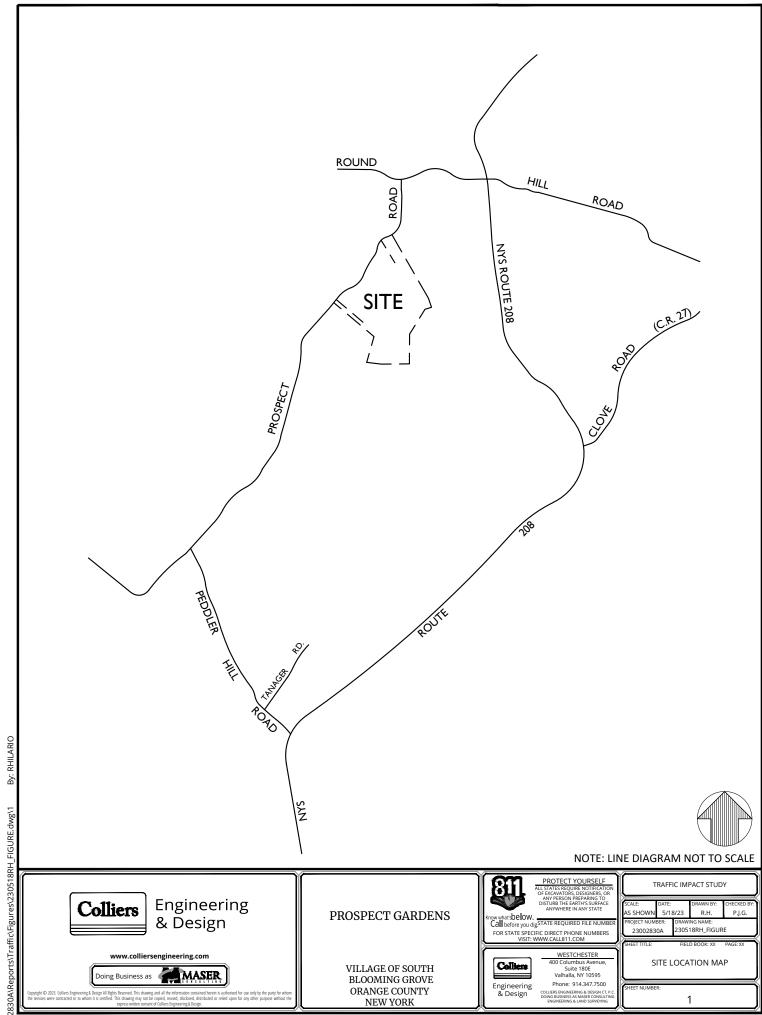


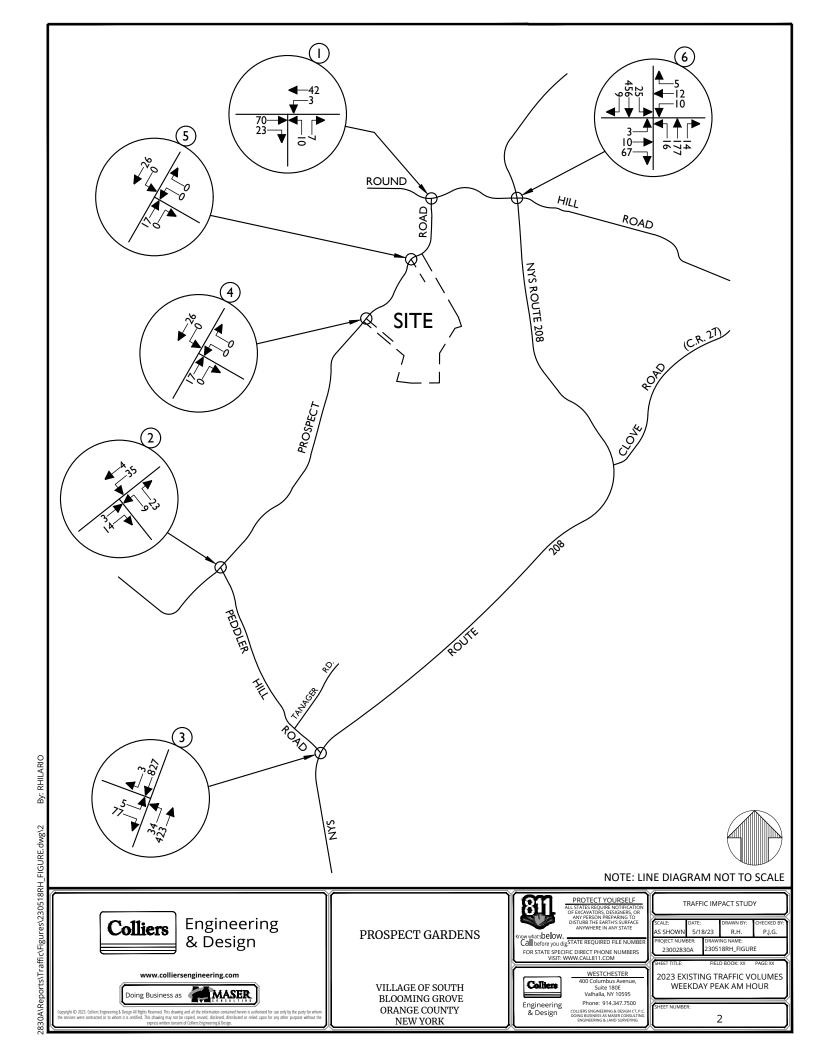
#### IV. Summary and Conclusion

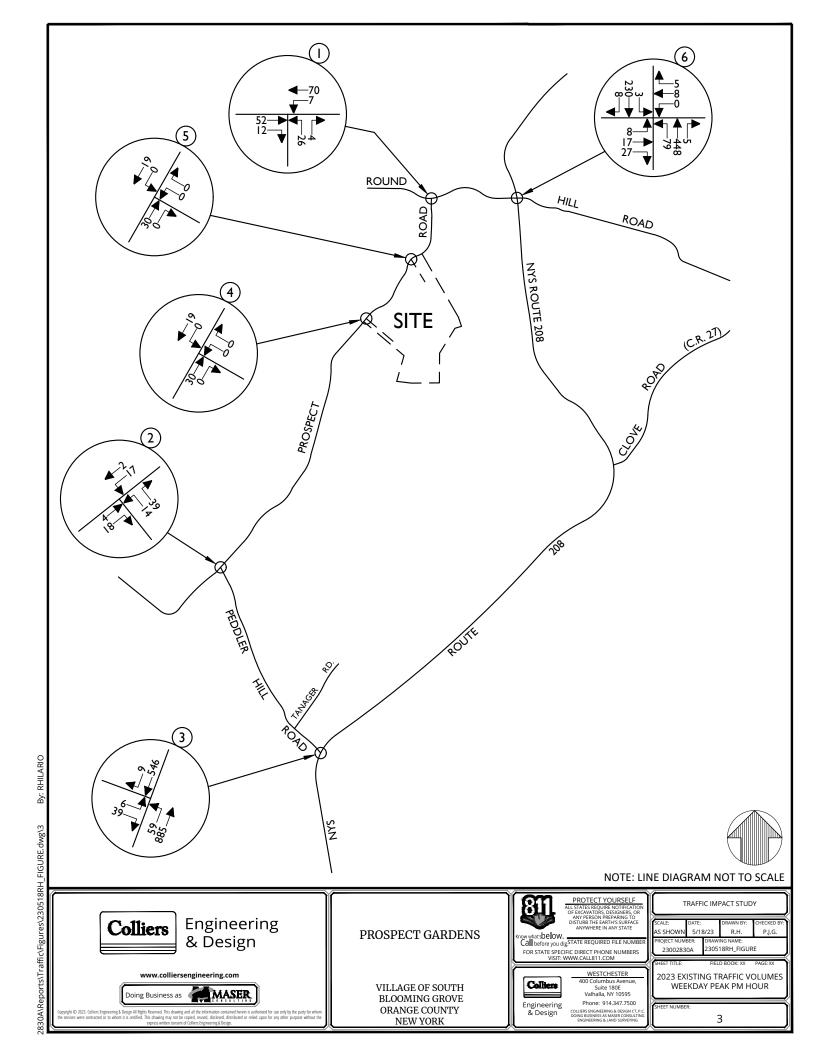
Based on the above analysis, similar Levels of Service and delays will be experienced at the area intersections under the future No-Build and future Build Conditions. Several signing, striping, and sight distance improvements have been identified for the intersections studied and these should be completed regardless of the development. With these improvements, the Prospect Gardens development traffic is not expected to cause any significant impact in overall traffic operations. Also, due to the current intersection geometry and lack of turning lanes on NYS Route 208, a northbound left turn lane should be constructed at the intersection of Peddler Hill Road and NYS Route 208. This should be pursued regardless of the development and a fair share contribution should be provided to the Village to advance such an improvement.

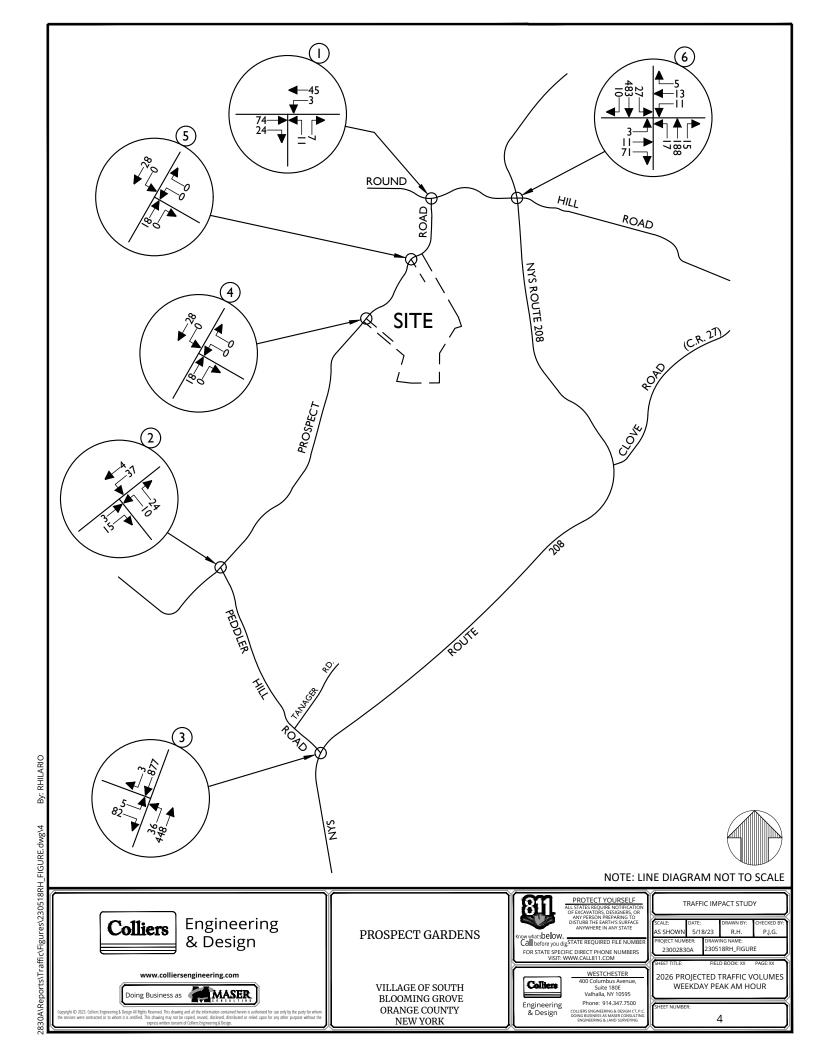


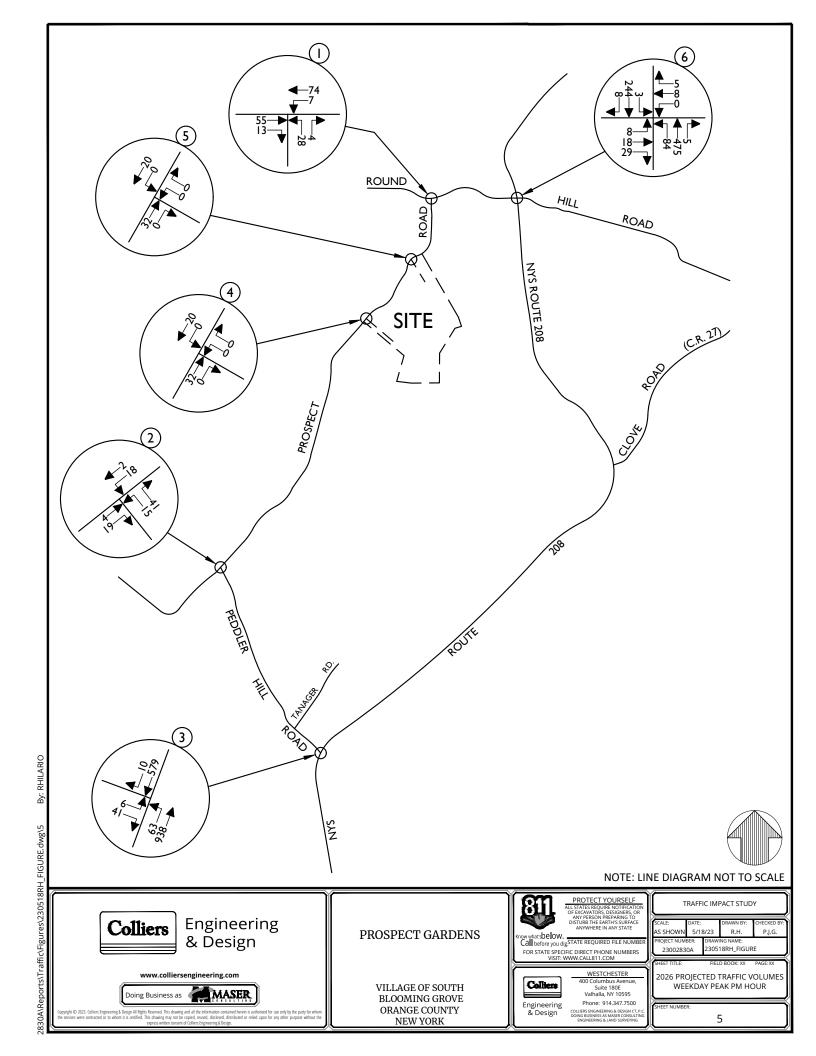
## Traffic Impact Study **Appendix A | Traffic Figures**

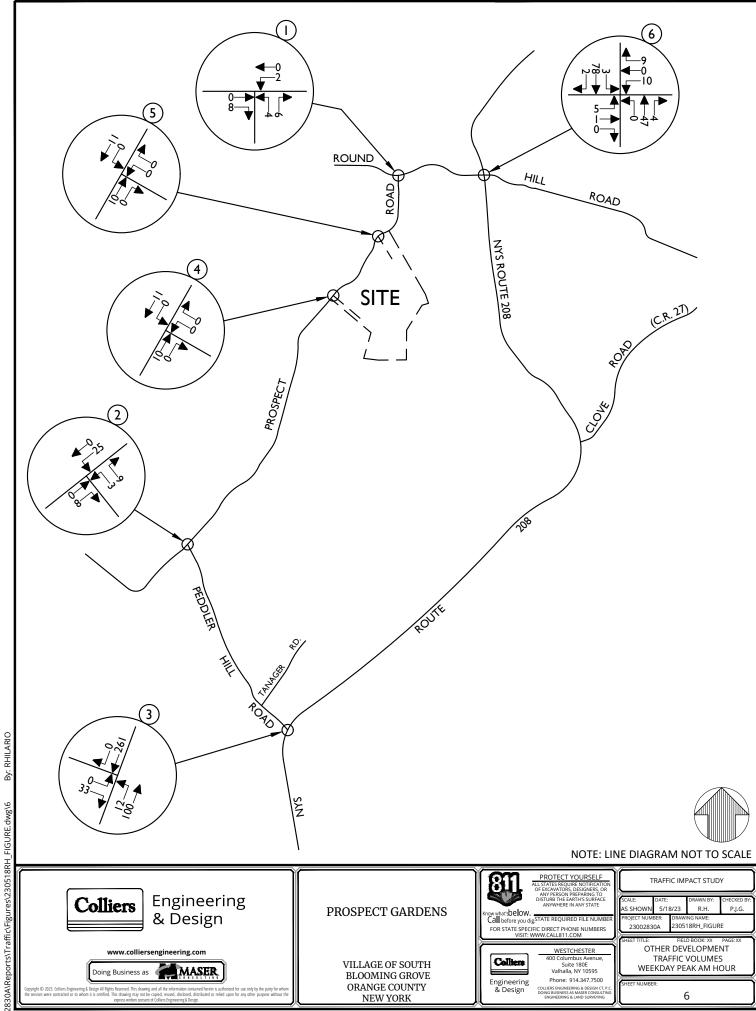


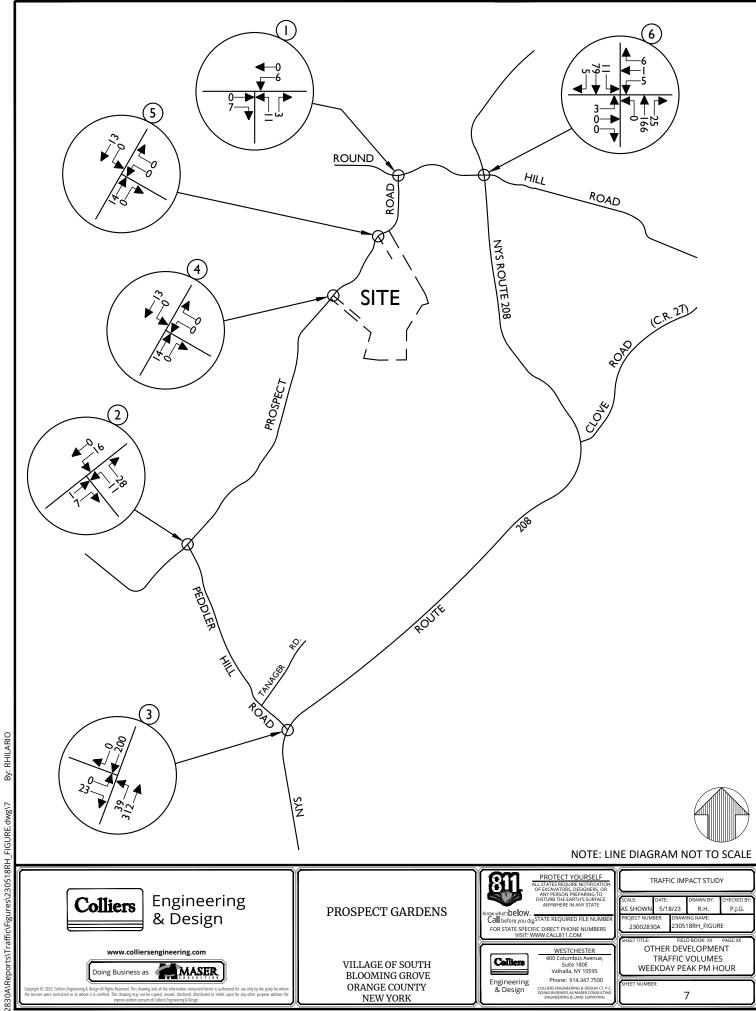


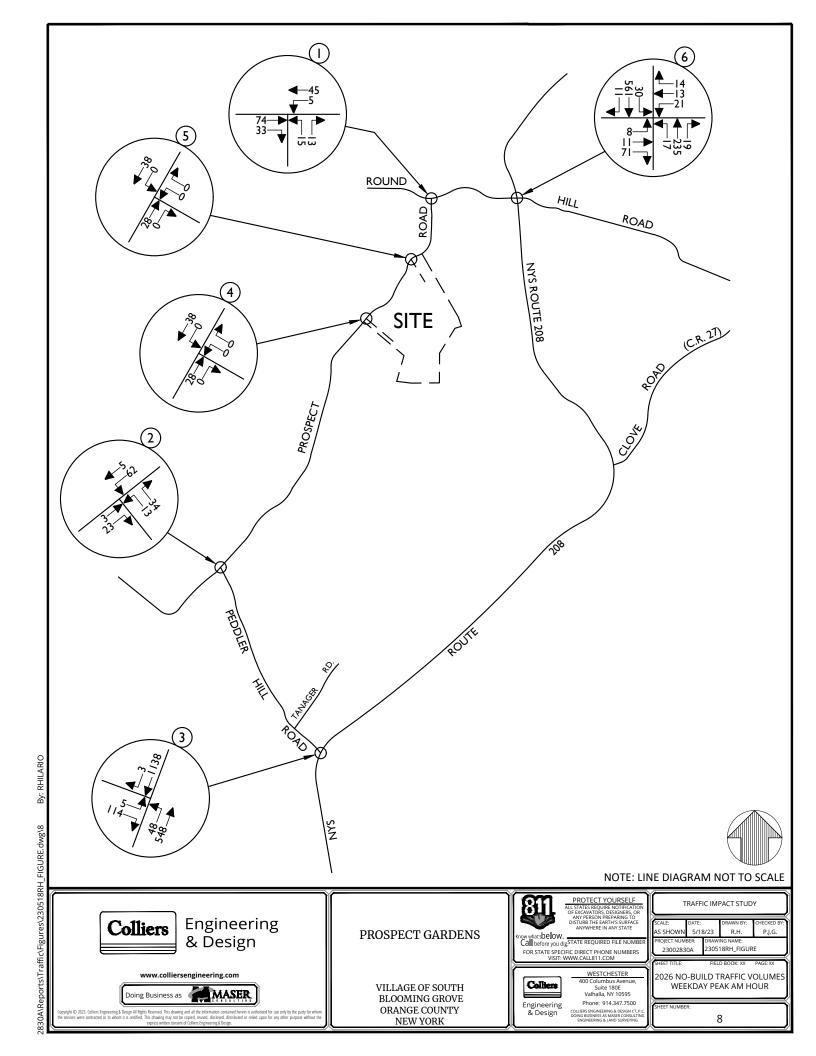


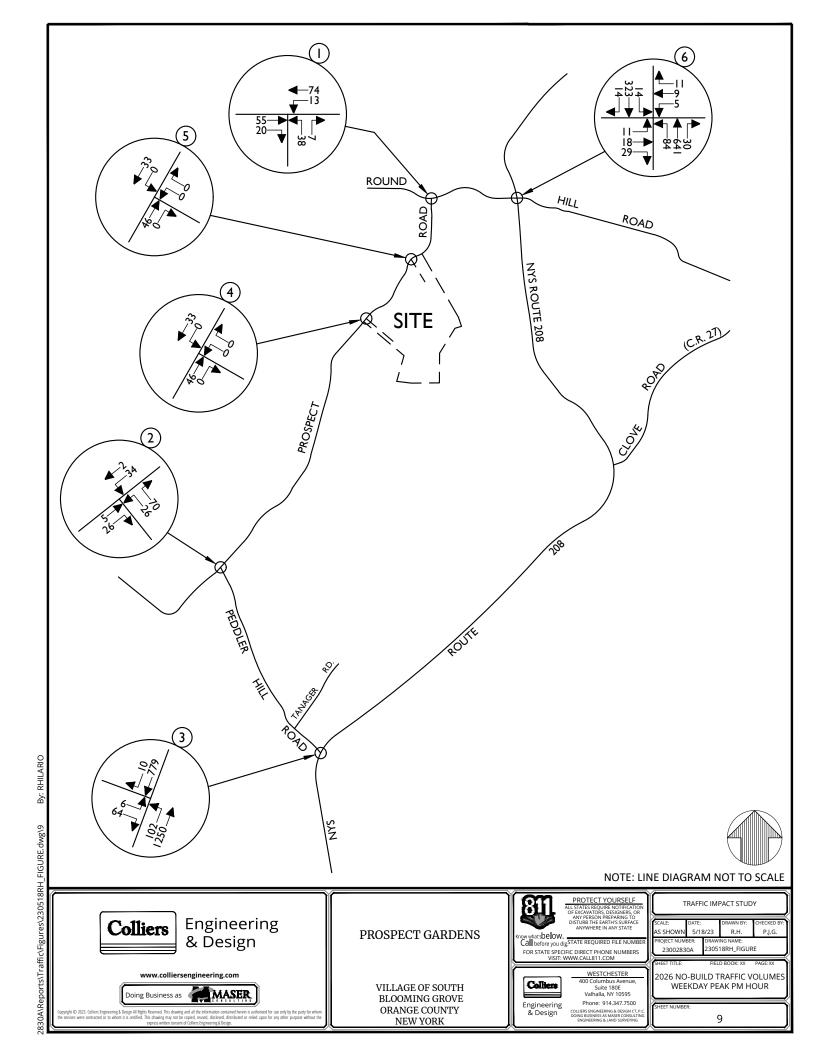


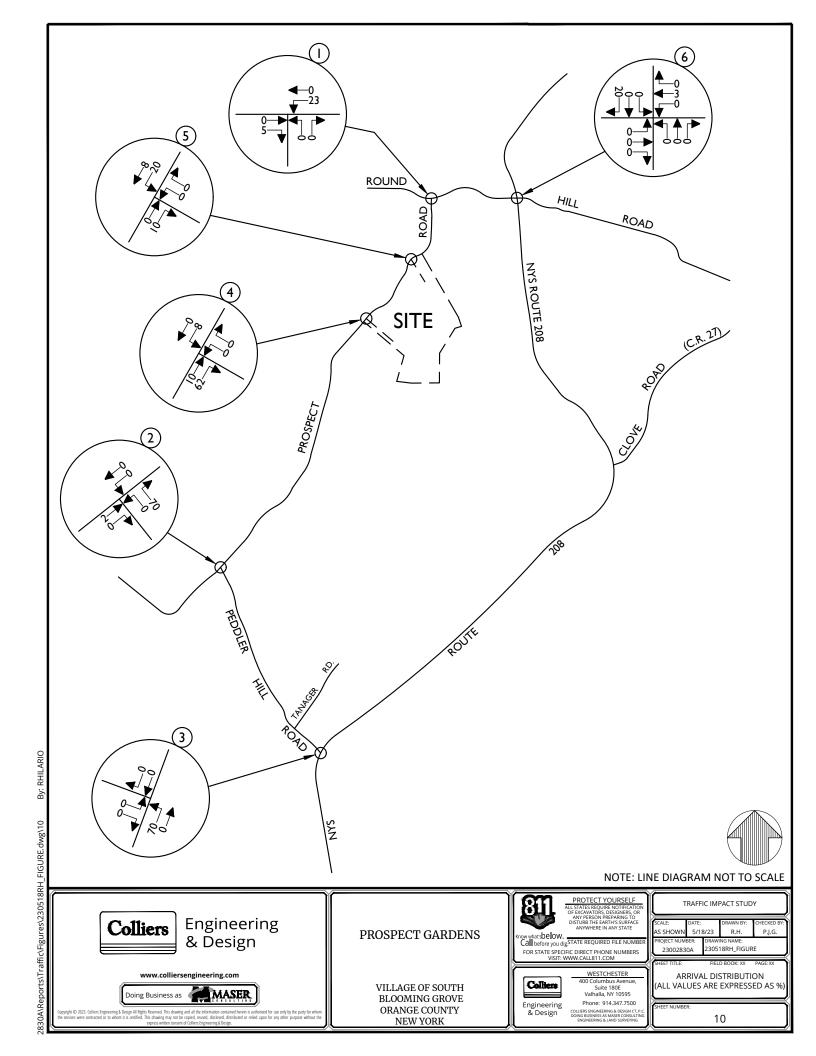


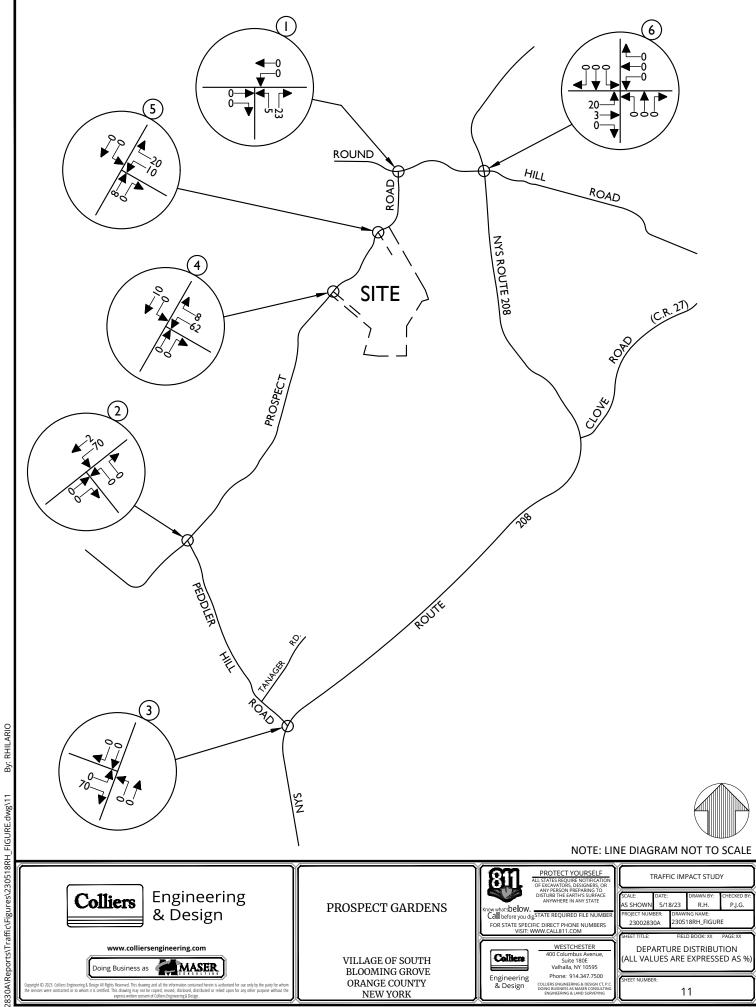


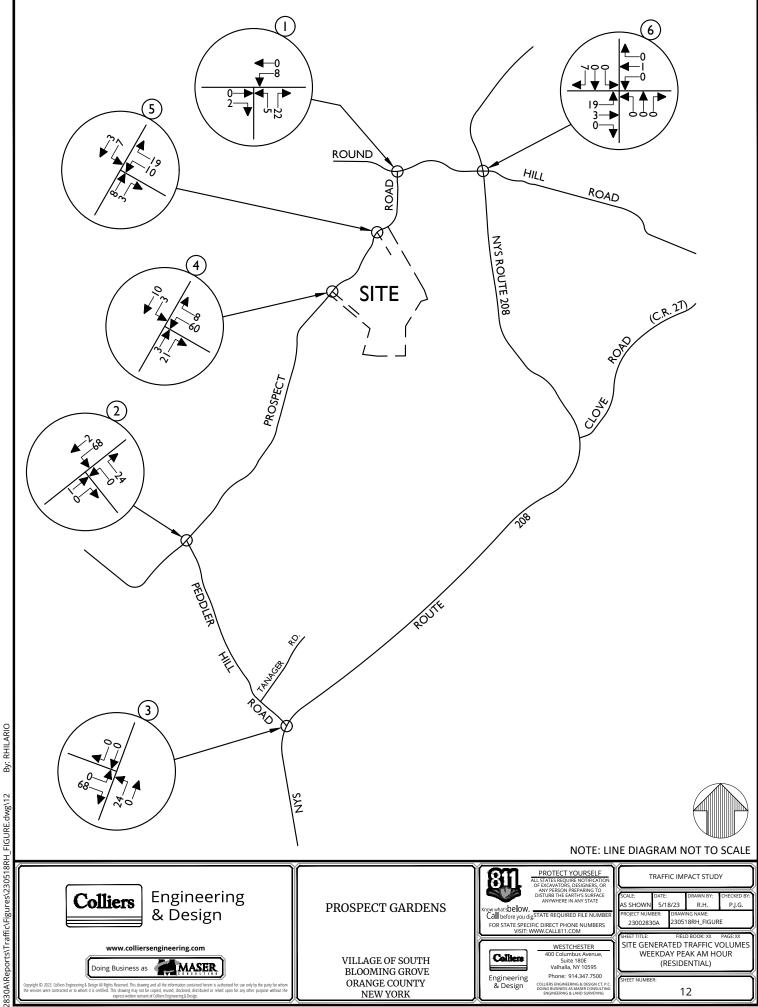




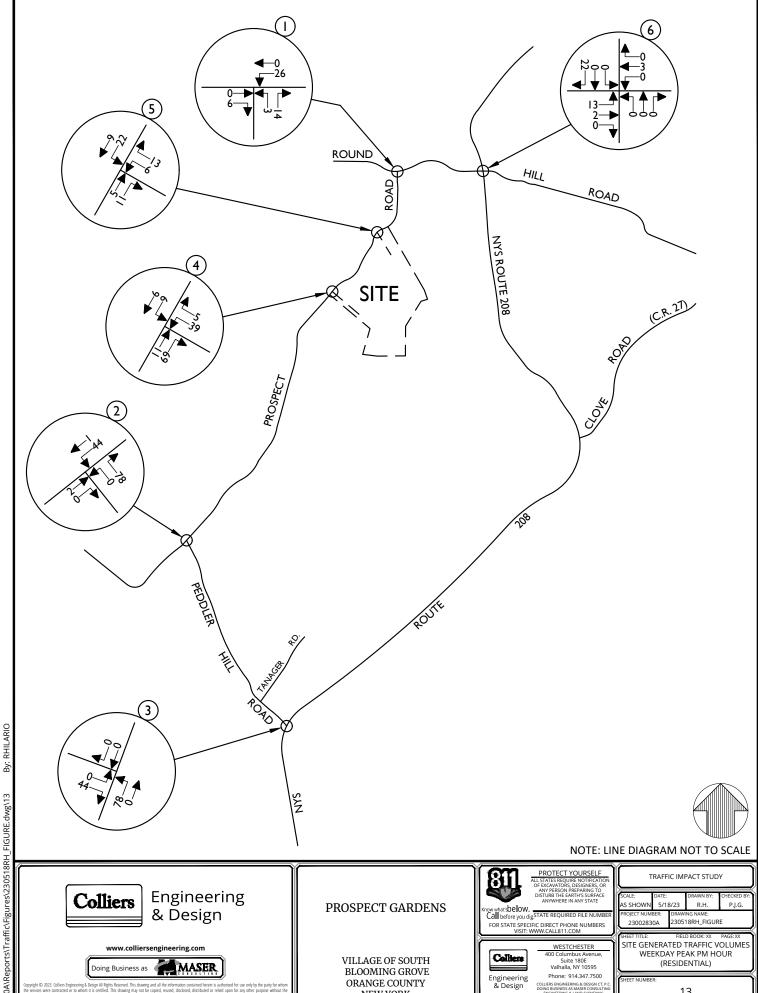








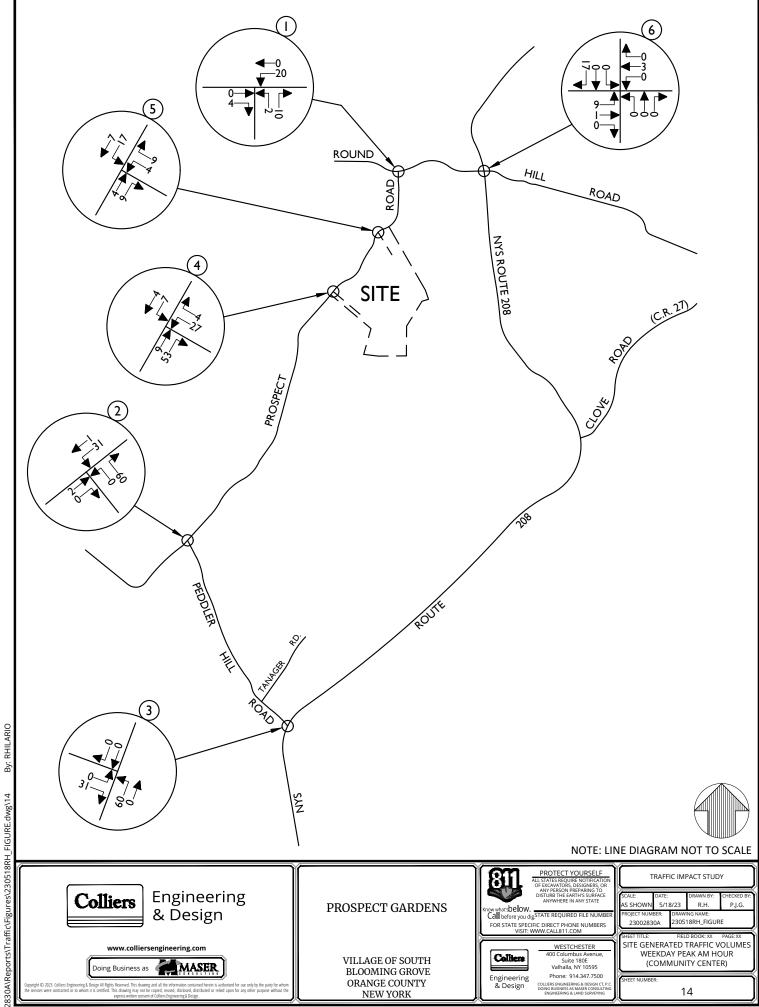
NEW YORK

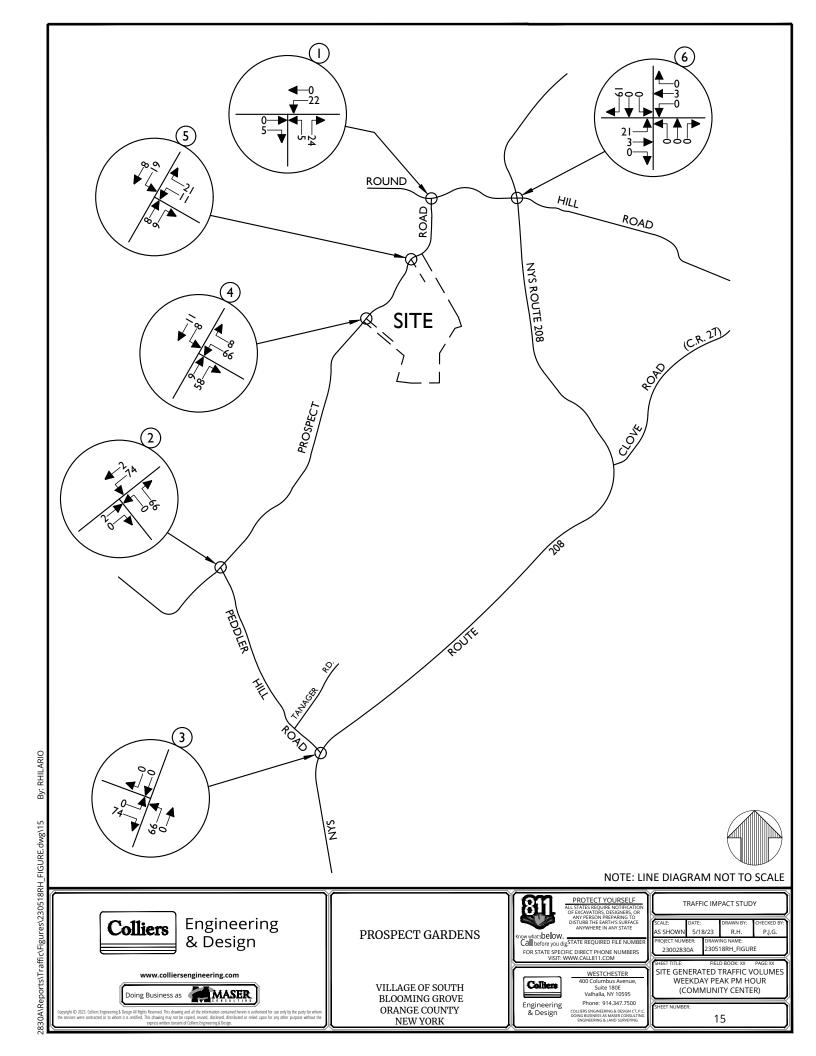


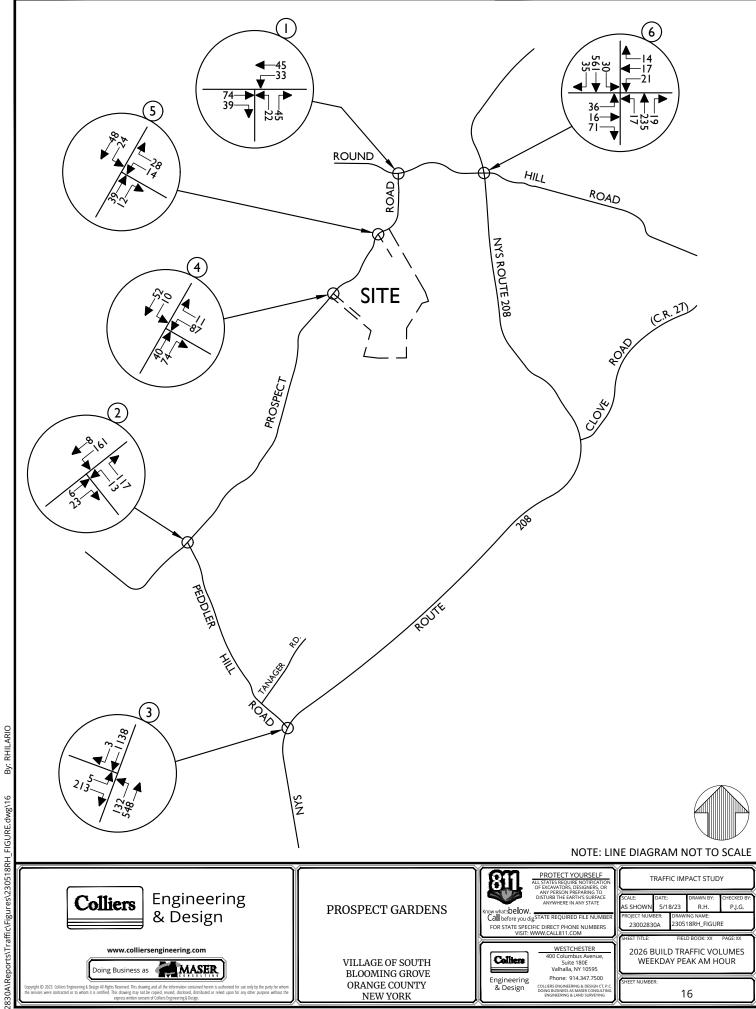
NEW YORK

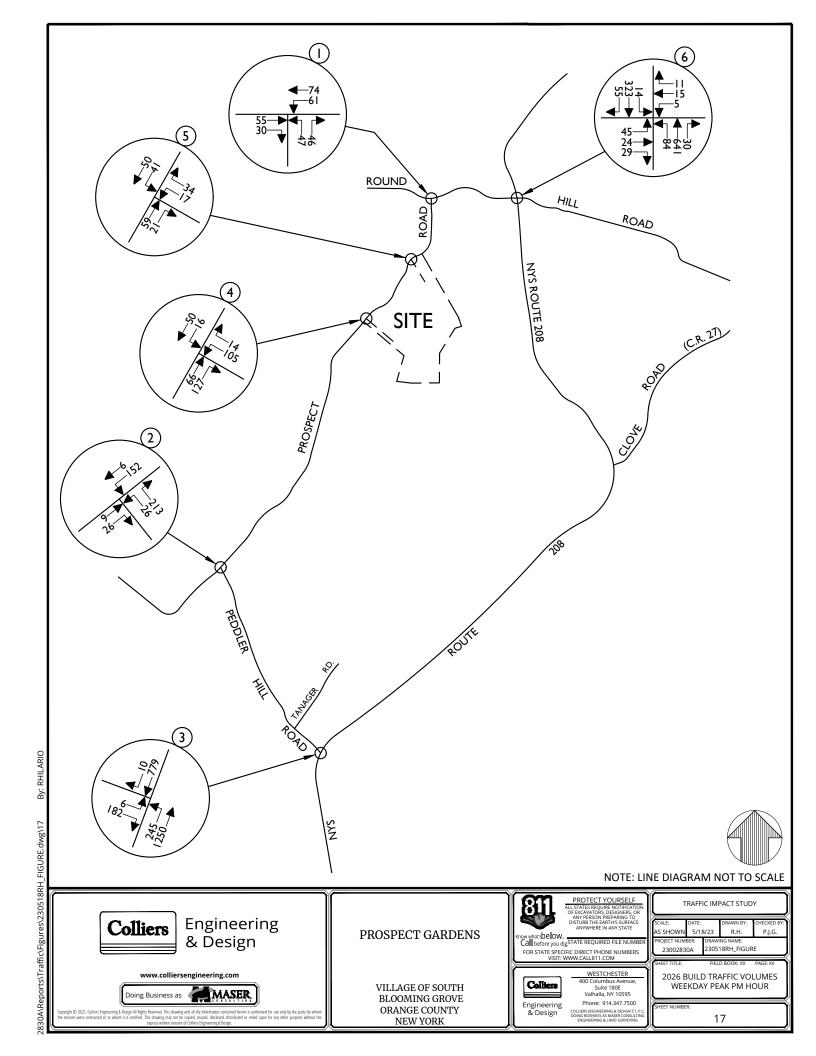
13

2830A\Reports\Traffic\Figures\230518RH\_FIGURE.dwg\13











## Traffic Impact Study **Appendix B | Tables**



Table No. 1
Hourly Trip Generation Rates (HTGR) and
Anticipated Site Generated Traffic Volumes

Prospect Gardens	En	try	E	kit	Total
South Blooming Grove, NY	HTGR <sup>1</sup>	Volume	HTGR <sup>1</sup>	Volume	Total
Residential (174 dwelling units)					
Peak AM Hour	0.20	34	0.56	97	131
Peak PM Hour	0.64	111	0.36	63	174
Community Centers (67,500 s.f.)					
Peak AM Hour	0.66	85	0.34	44	129
Peak PM Hour	0.47	94	0.53	106	200
Total					
Peak AM Hour	-	119	-	141	260
Peak PM Hour	-	205	-	169	374

### **NOTES:**

1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 11TH EDITION, 2021. NOTE THAT THE DEVELOPMENT WILL CONSIST OF MULTIFAMILY BUILDINGS AND TWO FAMILY HOMES AND ITE LAND USE CODE - 210 - SINGLE FAMILY HOUSING WAS USED FOR MORE CONSERVATIVE TRIP GENERATION PURPOSES. LAND USE CODE - 495 WAS USED FOR THE COMMUNITY CENTERS.



### Table No. 2 Level of Service Summary Table Weekday Peak AM Hour

				20	023 Existi	ng	20	26 No-Bu	iild		2026 Buil	d	Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	Prospect Road &	Unsign	alized										
	Round Hill Road												
	Round Hill Road	WB	LT	0.00	Α	8.0	0.01	Α	8.0	0.04	Α	8.2	0.2
	Prospect Road	NB	LR	0.00	A	9.3	0.01	A	9.4	0.04	A	9.8	0.2
	1103peet Roud	ND	LIX	0.03	^	5.5	0.05	^	5.4	0.11	^	5.0	0.4
2	Prospect Road & Peddler Hill Road	Unsign	alized										
	Peddler Hill Road	NWB	LR	0.04	Α	9.0	0.06	Α	9.3	0.17	Α	9.8	0.5
	Prospect Road	SB	LT	0.03	Α	7.4	0.05	Α	7.5	0.13	Α	7.7	0.2
3	NYS Route 208 &	Unsign	alized			<u> </u>			<u> </u>				
	Peddler Hill Road	0											
	Peddler Hill Road	SEB	LR	0.34	D	25.2	0.73	F	65.1	1.26	F	205.6	140.5
	NYS Route 208	NB	LT	0.05	В	10.5	0.09	В	12.3	0.25	В	13.8	1.5
	With Loft Turn Lanc & Cionalization Lan	nroven -	oto										
	With Left Turn Lane & Signalization Im	provemei	ILS										-
	Peddler Hill Road	SEB	L	-	-	-	-	-	-	0.03	D	43.6	-
			R	-	-	-	-	-	-	0.69	D	49.0	-
	NYS Route 208	NB	L	-	-	-	-	-	-	0.88	Е	77.6	-
			Т	-	-	-	-	-	-	0.43	Α	4.9	-
	NYS Route 208	SB	TR	-	-	-	-	-	-	0.99	D	44.5	-
		Ove	rall	-	-	-	-	-	-	-	D	36.5	-
4	Prospect Road &	Unsign	alized			<u> </u>			<u> </u>				
	Site Access (South)	0.13.8.1											
	,	WB	LR	-	-	-	-	-	-	0.17	В	10.5	-
		SB	LT	-	-	-	-	-	-	0.01	Α	7.6	-
5	Prospect Road &	Unsign	alized										
	Site Access (North)												
		WB	LR	-	-	-	-	-	-	0.06	Α	9.2	-
		SWB	LT	-	-	-	-	-	-	0.02	Α	7.4	-
6	NYS Route 208 &	Unsign	alized										
	Round Hill Road	01131511	unzeu										
	Davind Hill David	ED	LTD	0.20		140	0.21	_	20.1	0.55	L	24.6	145
	Round Hill Road Round Hill Road	EB WB	LTR LTR	0.20 0.09	B C	14.9 15.8	0.31 0.20	C C	20.1 20.7	0.55 0.22	D C	34.6 21.7	14.5 1.0
	NYS Route 208	NB	LTR	0.09	A	8.6	0.20	A	20.7 9.0	0.22	A	21.7 9.1	0.1
	NYS Route 208 NYS Route 208	SB	LTR	0.02	A	8.6 7.8	0.02	A	9.0 8.0	0.02	A	9.1 8.0	0.1
	1913 Route 200	مرد	LIN	0.02	^	7.0	0.03	^	0.0	0.03	^	5.0	0.0
	With Left Turn Lane & Signalization Im	proveme	<u>nts</u>										-
	Round Hill Road	EB	LTR	-	-	-	-	-	-	0.36	В	11.2	-
	Round Hill Road	WB	LTR	-	-	-	-	-	-	0.13	В	10.1	-
	NYS Route 208	NB	LTR	-	-	-	-	-	-	0.30	Α	3.9	-
	NYS Route 208	SB	LTR	-	-	-	-	-	-	0.60	Α	5.3	-
		Ove	rall	-	-	-	-	-	-	-	Α	5.9	-

#### NOTES:

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



### Table No. 2 Level of Service Summary Table Weekday Peak PM Hour

			20	023 Existi	ng	20	26 No-Bu	ıild	2	2026 Build	d	Change in Delay
			v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	Prospect Road &	Unsignalized										
	Round Hill Road											
	Round Hill Road	WB LT	0.01		7.4	0.01		7.4	0.05	Α	7.5	0.1
		NB LR	0.01	A A	7.4 9.4	0.01	A A	7.4 9.7	0.05	A B	7.5 10.3	0.1
	Prospect Road	IND LK	0.04	A	9.4	0.06	A	9.7	0.14	Ь	10.5	0.6
2	Prospect Road &	Unsignalized										
	Peddler Hill Road											
	Peddler Hill Road	NWB LR	0.06	Α	8.9	0.11	۸	9.2	0.28	В	10.3	1.1
	Prospect Road	SB LT	0.06	A	6.9 7.3	0.11	A A	9.2 7.4	0.28	A	7.6	0.2
	Frospect Road	36 LI	0.01	^	7.5	0.02	^	7.4	0.11	^	7.0	0.2
3	NYS Route 208 &	Unsignalized										
	Peddler Hill Road											
	Peddler Hill Road	SEB LR	0.19	С	21.5	0.59	F	64.4	1.05	F	130.0	65.6
	NYS Route 208	NB LT	0.19	A	9.1	0.59	В	10.9	0.32	В	130.0	0.8
	INTO NOULE 200	ND LI	0.07	^	ا , و	0.23	ט	10.5	0.32	ט	11./	0.6
	With Left Turn Lane & Signalization Im	<u>provements</u>										-
	Peddler Hill Road	SEB L			_			_	0.02	С	29.7	
	Peddier Hill Road	SEB L	_	-	-	_	_	-	0.02	D	29.7 39.8	[
	NYS Route 208	NB L	_	_	-	-	_	-	0.66	В	39.6 15.3	-
	N13 Route 206	T	_	-	_	_	-	_	0.00	C	32.1	-
	NYS Route 208	SB TR	_	_		_	_		0.33	В	15.9	_
	1113 Noute 233	Overall	_	_	_	_	_	_	-	C	25.8	_
		Overan								Č	23.0	
4	Prospect Road &	Unsignalized										
	Site Access (South)											
		WB LR	-	-	-	-	-	-	0.23	В	11.7	-
		SB LT	-	-	-	-	-	-	0.02	Α	7.9	-
5	Prospect Road &	Unsignalized										
	Site Access (North)	Ü										
		WB LR	-	-	-	-	-	-	0.08	Α	9.7	-
		SWB LT	-	-	-	-	-	-	0.04	Α	7.6	-
6	NYS Route 208 &	Uncignalizad			<del>                                     </del>			<del>                                     </del>				
٥	Round Hill Road	Unsignalized										
	Roulla Filli Road											
	Round Hill Road	EB LTR	0.16	C	17.0	0.31	D	30.5	0.75	F	82.4	51.9
	Round Hill Road	WB LTR	0.04	В	14.2	0.11	С	20.5	0.14	C	22.8	2.3
	NYS Route 208	NB LTR	0.07	Α	8.0	0.08	Α	8.3	0.08	Α	8.4	0.1
	NYS Route 208	SB LTR	0.00	Α	8.4	0.02	Α	9.2	0.02	Α	9.2	0.0
	With Left Turn Lane & Signalization Im	nrovements										
	With Left Turn Lane & Signalization IIII	<u>provements</u>										-
	Round Hill Road	EB LTR	-	-	-	-	-	-	0.31	В	13.6	-
	Round Hill Road	WB LTR	-	-	-	-	-	-	0.09	В	12.6	-
	NYS Route 208	NB LTR	-	-	-	-	-	-	0.70	Α	5.3	-
	NYS Route 208	SB LTR	-	-	-	-	-	-	0.32	Α	3.3	-
		Overall	-	-	-	-	-	-	-	Α	5.5	-
Ь			<u> </u>									

#### NOTES:

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



## Traffic Impact Study **Appendix C | Level of Service Standards**



### Level of Service Standards

### Level of Service for Signalized Intersections

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

- **LOS A** describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
- **LOS B** describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.
- **LOS C** describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.
- **LOS D** describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.
- **LOS E** describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.
- **LOS F** describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

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



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

Exhibit 19-8 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	v/c ≤ 1.0	v/c ≥ 1.0
≤10	А	F
>10-20	В	F
>20-35	С	F
>35-55	D	F
>55-80	Е	F
>80	F	F

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



# Level of Service Criteria For Two-Way Stop-Controlled (TWSC) Unsignalized Intersections

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

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

Exhibit 20-2 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	v/c ≤ 1.0	v/c ≥ 1.0
0-10	А	F
>10-15	В	F
>15-25	С	F
>25-35	D	F
>35-50	Е	F
>50	F	F

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

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

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



### Level of Service Criteria For All-Way Stop-Controlled (AWSC) Unsignalized Intersections

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

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

Exhibit 21-8 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	v/c ≤ 1.0	v/c ≥ 1.0
0-10	А	F
>10-15	В	F
>15-25	С	F
>25-35	D	F
>35-50	Е	F
>50	F	F

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



## Traffic Impact Study **Appendix D | Capacity Analysis**

	$\rightarrow$	•	•	<b>—</b>	1	~
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	ĵ»			ર્ન	W	
Traffic Volume (vph)	70	23	3	42	10	7
Future Volume (vph)	70	23	3	42	10	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-5%			1%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.966				0.944	
Flt Protected				0.997	0.972	
Satd. Flow (prot)	1684	0	0	1734	1595	0
Flt Permitted				0.997	0.972	
Satd. Flow (perm)	1684	0	0	1734	1595	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	832			676	1446	
Travel Time (s)	18.9			15.4	32.9	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	4%	20%	50%	2%	11%	2%
Adj. Flow (vph)	96	32	4	58	14	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	128	0	0	62	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	-
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	1.05	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						

Area Type: Other Control Type: Unsignalized

Lane Configurations Traffic Vol, veh/h Future Vol, veh/h Conflicting Peds, #/hr Sign Control RT Channelized Storage Length Veh in Median Storage, 7 Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow	Free 	70 70 0 Free - N - N N 5 73 4 96	23 23 0 Free None - - - 73 20 32	WBL  3 3 0 Free 73 50 4	WBT 42 42 0 Free None - 0 1 73 2 58	NBL 10 10 0 Stop - 0 - 3 73 11 14	NBR  7 7 7 0 Stop None 73 2 10
Lane Configurations Traffic Vol, veh/h Future Vol, veh/h Conflicting Peds, #/hr Sign Control RT Channelized Storage Length Veh in Median Storage, 7 Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Ma Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-2 Maneuver Mov Cap-2 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2  Approach HCM Control Delay, s	70 70 0 Free  -5, # 0 -5 73 4 96 Major1	70 70 0 Free - N N N N 	23 23 0 Free None - - - 73 20 32	3 3 0 Free - - - 73 50 4	42 42 0 Free None - 0 1 73 2 58	10 10 0 Stop - 0 0 -3 73	7 7 0 Stop None - - - 73 2
Lane Configurations Traffic Vol, veh/h Future Vol, veh/h Conflicting Peds, #/hr Sign Control RT Channelized Storage Length Veh in Median Storage, 7 Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Ma Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-2 Maneuver Mov Cap-2 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2  Approach HCM Control Delay, s	70 70 0 Free  -5, # 0 -5 73 4 96 Major1	70 70 0 Free - N N N N 	23 23 0 Free None - - - 73 20 32	3 3 0 Free - - - 73 50 4	42 42 0 Free None - 0 1 73 2 58	10 10 0 Stop - 0 0 -3 73	7 7 0 Stop None - - - 73 2
Traffic Vol, veh/h Future Vol, veh/h Future Vol, veh/h Conflicting Peds, #/hr Sign Control RT Channelized Storage Length Veh in Median Storage, 7 Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Ma Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	70 70 0 Free  e, # 0 -5 73 4 96 Major1	70 70 0 Free - N N 5 73 4 96	23 0 Free None - - 73 20 32	3 0 Free - - - 73 50 4	42 42 0 Free None - 0 1 73 2 58	10 10 0 Stop - 0 0 -3 73	7 0 Stop None - - - 73 2
Future Vol, veh/h Conflicting Peds, #/hr Sign Control RT Channelized Storage Length Veh in Median Storage, a Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Ma Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	70 0 Free - e, # 0 -5 73 4 96 Major1	70 0 Free - N 	23 0 Free None - - 73 20 32	3 0 Free - - - 73 50 4	42 0 Free None - 0 1 73 2 58	10 0 Stop - 0 0 -3 73 11	7 0 Stop None - - - 73 2
Conflicting Peds, #/hr Sign Control RT Channelized Storage Length Veh in Median Storage, a Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	0 Free - - e, # 0 -5 73 4 96 Major1 0	0 Free   - N - + 0 -5 -73 -4 -96	0 Free None - - 73 20 32	0 Free - - - 73 50 4	0 Free None - 0 1 73 2 58	0 Stop - 0 0 -3 73 11	0 Stop None - - - 73 2
Sign Control RT Channelized Storage Length Veh in Median Storage, a Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	Free   	Free	Free None - - 73 20 32	Free 73 50 4	Free None - 0 1 73 2 58	Stop 0 0 -3 73	Stop None - - - 73 2
RT Channelized Storage Length Veh in Median Storage, 7 Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Ma Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	- e, # 0 -5 73 4 96 Major1	- N 	None - - - 73 20 32	73 50 4	None 0 1 73 2 58	0 0 -3 73	None 73 2
Storage Length Veh in Median Storage, 7 Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Ma Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	-,# 0 -5 73 4 96 <u>Major1</u> 0	- # 0 -5 73 4 96	73 20 32	73 50 4	0 1 73 2 58	0 0 -3 73 11	- - 73 2
Veh in Median Storage, a Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Ma Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	-5 73 4 96 <u>Major1</u> 0	-5 73 4 96 Major1 0	73 20 32	73 50 4	0 1 73 2 58	0 -3 73 11	- 73 2
Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Ma Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	-5 73 4 96 <u>Major1</u> 0	-5 73 4 96 Major1 0	73 20 32	73 50 4	1 73 2 58	-3 73 11	- 73 2
Peak Hour Factor Heavy Vehicles, % Mvmt Flow  Major/Minor Ma Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	73 4 96 <u>Major1</u> 0	73 4 96 Major1 0	73 20 32	73 50 4	73 2 58	73 11	73 2
Major/Minor Major/	4 96 <u>Major1</u> 0	4 96 <u>Major1</u> 0	20 32	50 4	2 58	11	2
Mont Flow  Major/Minor  Conflicting Flow All  Stage 1  Stage 2  Critical Hdwy  Critical Hdwy Stg 1  Critical Hdwy Stg 2  Follow-up Hdwy  Pot Cap-1 Maneuver  Stage 1  Stage 2  Platoon blocked, %  Mov Cap-1 Maneuver  Mov Cap-2 Maneuver  Stage 1  Stage 2  Approach  HCM Control Delay, s	96 <u>Major1</u> 0 -	96 <u>//ajor1</u> 0	32 N	4	58		
Major/Minor Ma Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	Major1 0 -	Major1 0	N			14	10
Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	0	0		/lajor2			
Conflicting Flow All Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	0	0		/lajor2			
Stage 1 Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	-		٥		ľ	Minor1	
Stage 2 Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s		-	U	128	0	178	112
Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	_		-	-	-	112	-
Critical Hdwy Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s		-	-	-	-	66	-
Critical Hdwy Stg 1 Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2 Approach HCM Control Delay, s	-	-	-	4.6	-	5.91	5.92
Critical Hdwy Stg 2 Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2  Approach HCM Control Delay, s	-	-	-	_	-	4.91	-
Follow-up Hdwy Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2  Approach HCM Control Delay, s	_	-	_	_	-	4.91	-
Pot Cap-1 Maneuver Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2  Approach HCM Control Delay, s	_	_	_	2.65	_	3.599	3.318
Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2  Approach HCM Control Delay, s	_	_	_	1209	_	815	950
Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2  Approach HCM Control Delay, s	_	_	_	-	_	908	-
Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2  Approach HCM Control Delay, s	_	_	_	_	_	945	_
Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2  Approach HCM Control Delay, s		_	_		_	3-10	
Mov Cap-2 Maneuver Stage 1 Stage 2  Approach HCM Control Delay, s		_	_	1209	_	813	950
Stage 1 Stage 2  Approach HCM Control Delay, s		_	_	1203	_	813	-
Stage 2  Approach  HCM Control Delay, s		-	-			908	-
Approach HCM Control Delay, s			_				
HCM Control Delay, s	-	-	-	-	-	942	-
HCM Control Delay, s							
	EB	EB		WB		NB	
	0	0		0.5		9.3	
						Α	
M			N . 4	FDT		VA/DI	MOT
Minor Lane/Major Mvmt		t NE	3Ln1	EBT	EBR	WBL	WBT
Capacity (veh/h)	nt		864	-	-	1209	-
HCM Lane V/C Ratio	nt	0	.027	-	-	0.003	-
HCM Control Delay (s)			9.3	-	-	8	0
HCM Lane LOS			Α	-	-	Α	Α
HCM 95th %tile Q(veh)			0.1	-	-	0	-

 Job# 23002830A - R.H.
 Synchro 11 Report

 Page 2
 Page 2

	<b>†</b>	r*	Ļ	ļ	€	*
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	ĥ			ર્ન	W	
Traffic Volume (vph)	3	14	35	4	9	23
Future Volume (vph)	3	14	35	4	9	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-3%			3%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.891				0.904	
Flt Protected				0.957	0.986	
Satd. Flow (prot)	1282	0	0	1503	1292	0
Flt Permitted				0.957	0.986	
Satd. Flow (perm)	1282	0	0	1503	1292	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	713			4681	1736	
Travel Time (s)	16.2			106.4	39.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	2%	36%	14%	25%	67%	13%
Adj. Flow (vph)	4	17	42	5	11	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	0	0	47	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.98	1.02	1.07	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						

Area Type:
Control Type: Unsignalized Other

Synchro 11 Report Page 3 Job# 23002830A - R.H.

6.2					
NRT	NRR	SRI	SRT	NWI	NWR
	אטא	ODL			INVIX
3	1/	35			23
			-		23
					23
				•	Stop
-	None	-	None		None
-	-	-	-		-
, # 0	-	-	0	0	-
-3	-	-	3	-3	-
84	84	84	84	84	84
					13
					27
•	• •	12		• • •	21
0	0	21	0		13
-	-	-	-	13	-
-	-	-	-	89	-
-	-	4.24	-	6.47	6.03
-	-	-	_	5.47	-
_	-	-	-		_
_	_	2 326	_		3.417
	_		_		1037
		1020			1007
_	_	_	_		_
-	-	-		000	-
	-	4500		750	4007
-	-	1520			1037
-	-	-	-		-
-	-	-	-		-
-	-	-	-	783	-
NID		QD.		NIVA	
U		6.7			
				А	
t	NBT	NBRN	IWLn1	SBI	SBT
	-	-		1520	-
	_	_			<u>-</u>
			በ በ// 1		
	-		0.041		
	-	-	9	7.4	0
)	- - -				
	NBT  3 3 0 Free	NBT NBR  3 14 3 14 0 0 0 Free Free - None -	NBT NBR SBL  3 14 35 3 14 35 0 0 0 0 Free Free Free - None 3 84 84 84 2 36 14 4 17 42  Major1 Major2 0 0 21 4.24 2.326 - 1520 1520 1520	NBT NBR SBL SBT  3 14 35 4 3 14 35 4 0 0 0 0 0 Free Free Free Free - None - None 0 -3 3 84 84 84 84 2 36 14 25 4 17 42 5  Major1 Major2 0 0 21 0 4.24 4.24 2.326 1520 1520 1520 1520 1520 1520	NBT         NBR         SBL         SBT         NWL           Image: Control of the processing of the proce

 Job# 23002830A - R.H.
 Synchro 11 Report

 Page 4
 Page 4

	ሻ	<b>†</b>	ļ	W	•	>	
Lane Group	NBL	NBT	SBT	SBR	SEL	SER	
Lane Configurations	*	<b>†</b>	ĵ.		W		
Traffic Volume (vph)	34	423	827	3	5	77	
Future Volume (vph)	34	423	827	3	5	77	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	16	16	
Grade (%)		1%	1%		2%		
Storage Length (ft)	100			0	0	0	
Storage Lanes	1			0	1	0	
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt					0.872		
Flt Protected	0.950				0.997		
Satd. Flow (prot)	1458	1604	1649	0	1671	0	
Flt Permitted	0.950				0.997		
Satd. Flow (perm)	1458	1604	1649	0	1671	0	
Link Speed (mph)		45	45		30		
Link Distance (ft)		1804	1967		2341		
Travel Time (s)		27.3	29.8		53.2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	
Heavy Vehicles (%)	15%	10%	7%	2%	60%	8%	
Adj. Flow (vph)	37	465	909	3	5	85	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	37	465	912	0	90	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Left	Left	Right	Left	Right	
Median Width(ft)		10	10		16		
Link Offset(ft)		0	0		0		
Crosswalk Width(ft)		16	16		16		
Two way Left Turn Lane							
Headway Factor	1.10	1.10	1.10	1.10	0.86	0.86	
Turning Speed (mph)	15		5	9	15	9	
Sign Control		Free	Free		Stop		
Intersection Summary							

Area Type:
Control Type: Unsignalized

Other

Intersection						
Int Delay, s/veh	1.8					
Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	ሻ	<u> </u>	\$		¥	
Traffic Vol, veh/h	34	423	827	3	5	77
Future Vol. veh/h	34	423	827	3	5	77
Conflicting Peds, #/hr	0	0	0_0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-		-	None	-	None
Storage Length	100	-	_	-	0	-
Veh in Median Storage		0	0	_	0	_
Grade, %	- -	1	1	_	2	_
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	15	10	7	2	60	8
Mymt Flow	37	465	909	3	5	85
IVIVIIIL FIOW	31	400	909	3	5	00
Major/Minor	Major1	N	Major2	N	Minor2	
Conflicting Flow All	912	0	-	0	1450	911
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	539	-
Critical Hdwy	4.25	-	_	_	7.4	6.48
Critical Hdwy Stg 1	_	_	-	_	6.4	-
Critical Hdwy Stg 2	_	_	_	_	6.4	_
Follow-up Hdwy	2.335	_	_	_		3.372
Pot Cap-1 Maneuver	696	_	_	_	92	308
Stage 1	-	_	_	<u>-</u>	282	-
Stage 2	_	_	_	_	456	_
Platoon blocked, %		_	_	<u>-</u>	700	
Mov Cap-1 Maneuver	696	_	_	_	87	308
		-				
Mov Cap-2 Maneuver		-	-	-	87	-
Stage 1	-	-	-	-	267	-
Stage 2	-	-	-	-	456	-
Approach	NB		SB		SE	
HCM Control Delay, s	0.8		0		25.2	
HCM LOS	0.0		U		D	
TIOWI LOO					J	
Minor Lane/Major Mvn	nt	NBL	NBT :	SELn1	SBT	SBR
Capacity (veh/h)		696	-	267	-	-
HCM Lane V/C Ratio		0.054	-	0.337	-	-
HCM Control Delay (s	)	10.5	-	25.2	-	-
HCM Lane LOS		В	-	D	_	-
	١					
HCM 95th %tile Q(veh	1)	0.2	-	1.4	_	

	۶	-	•	•	•	•	1	<b>†</b>	_	-	<b>↓</b>	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (vph)	3	10	67	10	12	5	16	177	14	25	456	9
Future Volume (vph)	3	10	67	10	12	5	16	177	14	25	456	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Grade (%)		1%			-6%			0%			-7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.887			0.975			0.991			0.998	
Flt Protected		0.998			0.982			0.996			0.997	
Satd. Flow (prot)	0	1541	0	0	1725	0	0	1741	0	0	1818	0
Flt Permitted		0.998			0.982			0.996			0.997	
Satd. Flow (perm)	0	1541	0	0	1725	0	0	1741	0	0	1818	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1218			734			1431			1041	
Travel Time (s)		27.7			16.7			21.7			15.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	4%	5%	5%	4%	5%
Adj. Flow (vph)	3	12	78	12	14	6	19	206	16	29	530	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	32	0	0	241	0	0	569	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.96	1.01	0.96	1.00	1.04	1.00	0.96	1.00	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Other

Area Type: Control Type: Unsignalized

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	LDIT	1102	4	TIDIT.	1100	4	- IVEIV	ODL	4	OBIT
Traffic Vol, veh/h	3	10	67	10	12	5	16	177	14	25	456	9
Future Vol, veh/h	3	10	67	10	12	5	16	177	14	25	456	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	_	-	None	_	_	None	-	-	None	-	_	None
Storage Length	_	-	-	-	_	-	-	-	-	-	-	-
Veh in Median Storage	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-6	-	-	0	-	-	-7	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	5	5	5	5	5	5	5	4	5	5	4	5
Mvmt Flow	3	12	78	12	14	6	19	206	16	29	530	10
Major/Minor N	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	855	853	535	890	850	214	540	0	0	222	0	0
Stage 1	593	593	-	252	252	-	-	-	-	-	-	-
Stage 2	262	260	-	638	598	-	-	-	-	-	-	-
Critical Hdwy	7.35	6.75	6.35	5.95	5.35	5.65	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.35	5.75	-	4.95	4.35	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.35	5.75	-	4.95	4.35	_	-	-	-	-	-	_
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	262	280	532	350	391	848	1013	-	-	1329	-	-
Stage 1	471	473	-	811	754	-	-	-	-	-	-	-
Stage 2	726	678	-	569	593	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	243	266	532	278	371	848	1013	-	-	1329	-	-
Mov Cap-2 Maneuver	243	266	-	278	371	-	-	-	-	-	-	-
Stage 1	461	458	-	794	738	-	-	-	-	-	-	-
Stage 2	693	664	-	459	575	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	14.9			15.8			0.7			0.4		
HCM LOS	В			С								
Minor Lane/Major Mvm	ıt	NBL	NBT	NRR	EBLn1V	VBI n1	SBL	SBT	SBR			
Capacity (veh/h)		1013		-		364	1329	-	-			
HCM Lane V/C Ratio		0.018	_			0.086		_				
HCM Control Delay (s)		8.6	0	_	14.9	15.8	7.8	0	_			
HCM Lane LOS		Α	A	_	В	C	Α.	A	_			
HCM 95th %tile Q(veh)		0.1	-	_	0.8	0.3	0.1	-	_			
		0.1			3.0	0.0	J. 1					

	<b>→</b>	•	•	<b>←</b>	1	~
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	f)			ર્ન	W	
Traffic Volume (vph)	52	12	7	70	26	4
Future Volume (vph)	52	12	7	70	26	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-5%			1%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.974				0.981	
Flt Protected				0.996	0.959	
Satd. Flow (prot)	1670	0	0	1769	1611	0
Flt Permitted				0.996	0.959	
Satd. Flow (perm)	1670	0	0	1769	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	832			676	1446	
Travel Time (s)	18.9			15.4	32.9	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	10%	9%	2%	3%	10%	2%
Adj. Flow (vph)	60	14	8	81	30	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	0	0	89	35	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	1.05	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						

Area Type:
Control Type: Unsignalized Other

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
		EDR	VVDL			NDK
Lane Configurations	<b>}</b>	40	7	4	<b>Y</b>	4
Traffic Vol, veh/h	52	12	7	70	26	4
Future Vol, veh/h	52	12	7	70	26	4
Conflicting Peds, #/hr	_ 0	_ 0	_ 0	_ 0	0	0
	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	-5	-	-	1	-3	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	10	9	2	3	10	2
Mvmt Flow	60	14	8	81	30	5
			*			
	ajor1		Major2		Minor1	
Conflicting Flow All	0	0	74	0	164	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	97	-
Critical Hdwy	-	-	4.12	-	5.9	5.92
Critical Hdwy Stg 1	-	-	-	-	4.9	-
Critical Hdwy Stg 2	-	-	-	-	4.9	-
Follow-up Hdwy	-	_	2.218	-	3.59	3.318
Pot Cap-1 Maneuver	-	-	1526	-	831	1002
Stage 1	_	_	_	_	946	_
Stage 2	_	_	_	_	922	_
Platoon blocked, %	_	_		_	V	
Mov Cap-1 Maneuver	_	_	1526	_	827	1002
Mov Cap-2 Maneuver	_	_	1020	_	827	-
Stage 1	_		_	_	946	_
	_	_	_	_	917	-
Stage 2	-	-	-	-	917	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.7		9.4	
HCM LOS	-				Α	
					, \	
Minor Lane/Major Mvmt	١	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		847	-	-	1526	-
HCM Lane V/C Ratio		0.041	-	-	0.005	-
HCM Control Delay (s)		9.4	-	-	7.4	0
HCM Lane LOS		Α	-	_	Α	Α
HCM 95th %tile Q(veh)		0.1	-	-	0	_

 Job# 23002830A - R.H.
 Synchro 11 Report

 Page 2
 Page 2

	<b>†</b>	۴	Ļ	ţ	<b>₽</b> `	•
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	f)			ર્ન	W	
Traffic Volume (vph)	4	18	17	2	14	39
Future Volume (vph)	4	18	17	2	14	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-3%			3%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887				0.901	
Flt Protected				0.957	0.987	
Satd. Flow (prot)	1294	0	0	1640	1414	0
Flt Permitted				0.957	0.987	
Satd. Flow (perm)	1294	0	0	1640	1414	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	713			4681	1736	
Travel Time (s)	16.2			106.4	39.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	33%	6%	2%	43%	8%
Adj. Flow (vph)	4	20	18	2	15	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	0	0	20	57	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.98	1.02	1.07	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						

Area Type: Other Control Type: Unsignalized

 Synchro 11 Report

 Job# 23002830A - R.H.
 Page 3

Intersection						
Int Delay, s/veh	6.4					
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	<b>1</b>			स	W	
Traffic Vol, veh/h	4	18	17	2	14	39
Future Vol, veh/h	4	18	17	2	14	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	_	None	-		-	None
Storage Length	_	-	_	-	0	-
Veh in Median Storage	e, # 0	_	_	0	0	_
Grade, %	-3	_	-	3	-3	_
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	33	6	2	43	8
Mymt Flow	4	20	18	2	15	42
WWIICHIOW	-	20	10		10	72
	Major1	N	Major2		Minor1	
Conflicting Flow All	0	0	24	0	52	14
Stage 1	-	-	-	-	14	-
Stage 2	-	-	-	-	38	-
Critical Hdwy	-	-	4.16	-	6.23	5.98
Critical Hdwy Stg 1	-	-	-	-	5.23	-
Critical Hdwy Stg 2	-	-	-	-	5.23	-
Follow-up Hdwy	-	-	2.254	-	3.887	3.372
Pot Cap-1 Maneuver	-	-	1565	-	870	1050
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	895	_
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1565	-	860	1050
Mov Cap-2 Maneuver	_	_	_	-	860	_
Stage 1	_	_	_	_	914	_
Stage 2	_	_	_	_	884	_
olago 2					00.	
Approach	NB		SB		NW	
HCM Control Delay, s	0		6.6		8.9	
HCM LOS					Α	
Minor Lane/Major Mvm	nt	NBT	NRRN	IWLn1	SBL	SBT
Capacity (veh/h)	IL .	INDT			1565	
HCM Lane V/C Ratio		-	-			-
		-		0.058		-
HCM Long LOS		-	-	8.9	7.3	0
HCM Of the % tills O(yoh)	١	-	-	0.2	A	Α
HCM 95th %tile Q(veh)	)	-	-	U.Z	0	-

	ሻ	<b>†</b>	ļ	M	•	>
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	۲	<b>†</b>	ĥ		W	
Traffic Volume (vph)	59	885	546	9	6	39
Future Volume (vph)	59	885	546	9	6	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	16	16
Grade (%)		1%	1%		2%	
Storage Length (ft)	100			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.884	
Flt Protected	0.950				0.993	
Satd. Flow (prot)	1627	1697	1699	0	1678	0
Flt Permitted	0.950				0.993	
Satd. Flow (perm)	1627	1697	1699	0	1678	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1804	1967		2341	
Travel Time (s)		27.3	29.8		53.2	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	3%	4%	3%	44%	2%	13%
Adj. Flow (vph)	66	994	613	10	7	44
Shared Lane Traffic (%)						
Lane Group Flow (vph)	66	994	623	0	51	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		10	10	J .	16	J .
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.10	1.10	1.10	1.10	0.86	0.86
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free	•	Stop	,
Intersection Summary						

Area Type:
Control Type: Unsignalized

Other

Intersection						
Int Delay, s/veh	1					
Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	NDL Š	<u> </u>	- 1 <u>001</u>	אופט	¥	OLIN
Traffic Vol, veh/h	59	885	546	9	6	39
Future Vol, veh/h	59	885	546	9	6	39
Conflicting Peds, #/hr	0	000	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	riee -	None	riee -		Stop -	None
	100	None -	-	None -	0	NULLE
Storage Length Veh in Median Storage			0			_
	•	0	~	-	0	-
Grade, %	-	1	1	-	2	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	3	4	3	44	2	13
Mvmt Flow	66	994	613	10	7	44
Major/Minor I	Major1	١	/lajor2	N	Minor2	
Conflicting Flow All	623	0	-	0	1744	618
Stage 1	023	Ū		-	618	-
Stage 2	_	_	_	_	1126	_
Critical Hdwy	4.13	-	-		6.82	6.53
			_	-		
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	2.227	-	-	-	3.518	
Pot Cap-1 Maneuver	953	-	-	-	78	454
Stage 1	-	-	-	-	502	-
Stage 2	-	-	-	-	273	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	953	-	-	-	73	454
Mov Cap-2 Maneuver	-	-	-	-	73	-
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	273	-
<u>.</u>						
A I	ND		0.5		0-	
Approach	NB		SB		SE	
HCM Control Delay, s	0.6		0		21.5	
HCM LOS					С	
Minor Lane/Major Mvm	nt	NBL	NRT	SELn1	SBT	SBR
Capacity (veh/h)		953	-		-	אופט
HCM Lane V/C Ratio		0.07		0.189		_
		9.1			-	-
HCM Long LOS			-	=	-	-
HCM Lane LOS		A 0.2	-	0.7	-	-
HCM 95th %tile Q(veh)						

	۶	<b>→</b>	•	•	<b>←</b>	•	•	<b>†</b>	/	<b>&gt;</b>	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (vph)	8	17	27	0	8	5	79	448	5	3	230	8
Future Volume (vph)	8	17	27	0	8	5	79	448	5	3	230	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Grade (%)		1%			-6%			0%			-7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.930			0.952			0.999			0.995	
Flt Protected		0.992						0.993			0.999	
Satd. Flow (prot)	0	1653	0	0	1766	0	0	1786	0	0	1853	0
Flt Permitted		0.992						0.993			0.999	
Satd. Flow (perm)	0	1653	0	0	1766	0	0	1786	0	0	1853	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1218			734			1431			1041	
Travel Time (s)		27.7			16.7			21.7			15.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	18	29	0	9	5	86	487	5	3	250	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	14	0	0	578	0	0	262	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.96	1.01	0.96	1.00	1.04	1.00	0.96	1.00	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												

Intersection Summary

Other

Area Type:
Control Type: Unsignalized

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	8	17	27	0	8	5	79	448	5	3	230	8
Future Vol, veh/h	8	17	27	0	8	5	79	448	5	3	230	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-6	-	-	0	-	-	-7	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	18	29	0	9	5	86	487	5	3	250	9
Major/Minor I	Minor2			Minor1			Major1		ľ	Major2		
Conflicting Flow All	930	925	255	946	927	490	259	0	0	492	0	0
Stage 1	261	261	-	662	662	-	-	-	-	-	-	-
Stage 2	669	664	-	284	265	-	-	-	-	-	-	-
Critical Hdwy	7.32	6.72	6.32	5.92	5.32	5.62	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.32	5.72	-	4.92	4.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.32	5.72	-	4.92	4.32	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	235	256	778	331	365	627	1306	-	-		-	-
Stage 1	733	682	-	562	573	-	-	-	-	-	-	-
Stage 2	431	442	-	795	753	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	212	232	778	278	331	627	1306	-	-	1071	-	-
Mov Cap-2 Maneuver	212	232	-	278	331	-	-	-	-	-	-	-
Stage 1	666	680	-	511	521	-	-	-	-	-	-	-
Stage 2	382	402	-	742	751	-	-	-	-	-	-	-
, and the second se												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	17			14.2			1.2			0.1		
HCM LOS	С			В								
Minor Lane/Major Mvm	nt	NBL	NBT	NBR	EBLn1V	VBLn1	SBL	SBT	SBR			
Capacity (veh/h)		1306	_	_	357	404	1071	_	-			
HCM Lane V/C Ratio		0.066	-	-	0.158	0.035	0.003	-	-			
HCM Control Delay (s)		8	0	-	17	14.2	8.4	0	-			
HCM Lane LOS		Α	Α	-	С	В	Α	Α	-			
HCM 95th %tile Q(veh	)	0.2	-	-	0.6	0.1	0	-	-			

	-	•	1	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			ર્ન	Y	
Traffic Volume (vph)	74	33	5	45	15	13
Future Volume (vph)	74	33	5	45	15	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-5%			1%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.958				0.938	
Flt Protected				0.995	0.974	
Satd. Flow (prot)	1656	0	0	1701	1594	0
Flt Permitted				0.995	0.974	
Satd. Flow (perm)	1656	0	0	1701	1594	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	832			676	1446	
Travel Time (s)	18.9			15.4	32.9	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	4%	20%	50%	2%	11%	2%
Adj. Flow (vph)	101	45	7	62	21	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	146	0	0	69	39	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	1.05	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: C	Other					
Control Typo: Uncignalized						

Intersection						
Int Delay, s/veh	1.6			_		
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1→	LUIK	1100	4	Y	TIDIN
Traffic Vol, veh/h	74	33	5	45	15	13
Future Vol, veh/h	74	33	5	45	15	13
Conflicting Peds, #/hr	0	0	0	0	0	0
	Free	Free	Free	Free	Stop	Stop
RT Channelized		None		None	-	
Storage Length	_	-	_	-	0	-
Veh in Median Storage,	# 0	_	_	0	0	_
Grade, %	-5	_	_	1	-3	_
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	4	20	50	2	11	2
Mymt Flow	101	45	7	62	21	18
William Town		10	•	02		10
		-		_		
	ajor1		/lajor2		Minor1	
Conflicting Flow All	0	0	146	0	200	124
Stage 1	-	-	-	-	124	-
Stage 2	-	-	-	-	76	-
Critical Hdwy	-	-	4.6	-	5.91	5.92
Critical Hdwy Stg 1	-	-	-	-	4.91	-
Critical Hdwy Stg 2	-	-	-	-	4.91	-
Follow-up Hdwy	-	-	2.65	-	3.599	
Pot Cap-1 Maneuver	-	-	1189	-	795	936
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	936	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1189	-	790	936
Mov Cap-2 Maneuver	-	-	-	-	790	-
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	930	-
Ü						
Annroach	EB		WB		NB	
Approach						
HCM Control Delay, s	0		8.0		9.4	
HCM LOS					Α	
Minor Lane/Major Mvmt	t N	VBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		852	-	-	1189	-
HCM Lane V/C Ratio		0.045	-		0.006	-
HCM Control Delay (s)		9.4	-	-	_	0
HCM Lane LOS		Α	-	-	A	A
HCM 95th %tile Q(veh)		0.1	_	-	0	-

	1	۴	Ļ	Ţ	€	1
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	ĵ.			र्स	N/	
Traffic Volume (vph)	3	23	62	5	13	34
Future Volume (vph)	3	23	62	5	13	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-3%			3%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.882				0.902	
Flt Protected				0.956	0.987	
Satd. Flow (prot)	1249	0	0	1506	1299	0
Flt Permitted				0.956	0.987	
Satd. Flow (perm)	1249	0	0	1506	1299	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	713			4681	1736	
Travel Time (s)	16.2			106.4	39.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	2%	36%	14%	25%	67%	13%
Adj. Flow (vph)	4	27	74	6	15	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	31	0	0	80	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.98	1.02	1.07	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	ther					
Control Type: Unsignalized						

Intersection						
Int Delay, s/veh	6.5				_	
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	1	HOR	UDL	4	¥	717711
Traffic Vol, veh/h	3	23	62	5	13	34
Future Vol, veh/h	3	23	62	5	13	34
Conflicting Peds, #/hr	0	0	02	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-		310p	None
Storage Length	-	NONE -	_	None -	0	None -
Veh in Median Storage	- \  # 0	-	-	0	0	-
	-3			3	-3	
Grade, %		- 0.4	- 0.4			- 0.4
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	36	14	25	67	13
Mvmt Flow	4	27	74	6	15	40
Major/Minor M	lajor1	N	Major2	N	Minor1	
Conflicting Flow All	0	0	31	0	172	18
Stage 1	-	-	-	-	18	-
Stage 2	-		-		154	-
Critical Hdwy	_	_	4.24	_	6.47	6.03
Critical Hdwy Stg 1	_	_		_	5.47	-
Critical Hdwy Stg 2	_		-	-	5.47	_
Follow-up Hdwy	_	_	2.326		4.103	
Pot Cap-1 Maneuver	-	_	1507	-	709	1031
Stage 1	_	_	-	_	863	-
Stage 2	_	-	_	_	757	-
Platoon blocked, %	-	-	-	_	131	_
Mov Cap-1 Maneuver	-	-	1507		674	1031
		-		-	674	
Mov Cap-2 Maneuver	-	-	-	-		-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	720	-
Approach	NB		SB		NW	
HCM Control Delay, s	0		7		9.3	
HCM LOS			-		Α	
					,,	
			NES		02:	05-
Minor Lane/Major Mvm	nt	NBT	NBRN	WLn1	SBL	SBT
Capacity (veh/h)		-	-		1507	-
HCM Lane V/C Ratio		-	-	0.062		-
HCM Control Delay (s)		-	-	9.3	7.5	0
HCM Lane LOS		-	-	Α	Α	Α
HCM 95th %tile Q(veh)	)	-	-	0.2	0.2	-

	ነ	1	ļ	W	•	>
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	7	<b>↑</b>	ĵ.	•	14	
Traffic Volume (vph)	48	548	1138	3	5	114
Future Volume (vph)	48	548	1138	3	5	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16
Grade (%)		1%	1%		2%	
Storage Length (ft)	100			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.870	
Flt Protected	0.950				0.998	
Satd. Flow (prot)	1562	1719	1767	0	1683	0
Flt Permitted	0.950				0.998	
Satd. Flow (perm)	1562	1719	1767	0	1683	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1804	1967		2341	
Travel Time (s)		27.3	29.8		53.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.91	0.91
Heavy Vehicles (%)	15%	10%	7%	2%	60%	8%
Adj. Flow (vph)	50	571	1185	3	5	125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	50	571	1188	0	130	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12	J	16	J
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	0.86	0.86
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						

Area Type: Control Type: Unsignalized

Other

Intersection						
Int Delay, s/veh	4.7					
Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	NDL	ND1	3D1	JUK	¥ Y	JLI
Traffic Vol, veh/h	48	548	1138	3	5	114
Future Vol, veh/h	48	548	1138	3	5	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	riee -	None	-	None	Slup -	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage		0	0		0	
Grade, %	<i>5,#</i> -	1	1	-	2	-
Peak Hour Factor	96	96	96	96	91	91
	15	10	70	2	60	8
Heavy Vehicles, % Mvmt Flow	50	571	1185	3	5	125
IVIVIIIL FIOW	50	3/1	1100	3	Э	125
Major/Minor N	/lajor1	N	/lajor2	N	/linor2	
Conflicting Flow All	1188	0	-	0	1858	1187
Stage 1	-	-	-	-	1187	-
Stage 2	-	-	-	-	671	-
Critical Hdwy	4.25	-	-	-	7.4	6.48
Critical Hdwy Stg 1	_	-	-	-	6.4	-
Critical Hdwy Stg 2	_	-	-	-	6.4	-
	2.335	-		_		3.372
Pot Cap-1 Maneuver	544	_	-	_	47	209
Stage 1	-	_		_	195	-
Stage 2	_	_	_	_	385	_
Platoon blocked, %		_	_	_	000	
Mov Cap-1 Maneuver	544	_	_	_	43	209
Mov Cap-1 Maneuver	-	_	_	-	43	-
Stage 1	_				177	
ğ		-		-	385	-
Stage 2	-	-	-	-	300	-
Approach	NB		SB		SE	
HCM Control Delay, s	1		0		65.1	
HCM LOS					F	
	<b>.</b> t	NDI	NDT	CEL 51	CDT	CDD
Minor Long/Major Mum	nt	NBL		SELn1	SBT	SBR
Minor Lane/Major Mvm					_	-
Capacity (veh/h)		544	-			
Capacity (veh/h) HCM Lane V/C Ratio		0.092	-	0.726	-	-
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		0.092 12.3		0.726 65.1	-	-
Capacity (veh/h) HCM Lane V/C Ratio	)	0.092	-	0.726		- - -

	۶	-	•	•		•	4	1	1	/	ļ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (vph)	8	11	71	21	13	14	17	235	19	30	561	11
Future Volume (vph)	8	11	71	21	13	14	17	235	19	30	561	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Grade (%)		1%			-6%			0%			-7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.893			0.961			0.991			0.997	
Flt Protected		0.996			0.979			0.997			0.998	
Satd. Flow (prot)	0	1548	0	0	1695	0	0	1743	0	0	1818	0
Flt Permitted		0.996			0.979			0.997			0.998	
Satd. Flow (perm)	0	1548	0	0	1695	0	0	1743	0	0	1818	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1218			734			1431			1041	
Travel Time (s)		27.7			16.7			21.7			15.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	4%	5%	5%	4%	5%
Adj. Flow (vph)	9	13	83	24	15	16	20	273	22	35	652	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	105	0	0	55	0	0	315	0	0	700	0
<b>Enter Blocked Intersection</b>	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.96	1.01	0.96	1.00	1.04	1.00	0.96	1.00	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												

Other

Area Type: Control Type: Unsignalized

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	8	11	71	21	13	14	17	235	19	30	561	11
Future Vol, veh/h	8	11	71	21	13	14	17	235	19	30	561	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-6	-	-	0	-	-	-7	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	5	5	5	5	5	5	5	4	5	5	4	5
Mvmt Flow	9	13	83	24	15	16	20	273	22	35	652	13
Major/Minor N	/linor2		ľ	Minor1		ľ	Major1		N	Major2		
Conflicting Flow All	1069	1064	659	1101	1059	284	665	0	0	295	0	0
Stage 1	729	729	-	324	324	-	-	-	-	-	-	-
Stage 2	340	335	-	777	735	-	-	-	-	-	-	-
Critical Hdwy	7.35	6.75	6.35	5.95	5.35	5.65	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.35	5.75	-	4.95	4.35	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.35	5.75	-	4.95	4.35	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	185	207	450	270	315	784	910	-	-	1249	-	-
Stage 1	393	407	-	760	718	-	-	-	-	-	-	-
Stage 2	656	625	-	499	538	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	165	193	450	198	293	784	910	-	-	1249	-	-
Mov Cap-2 Maneuver	165	193	-	198	293	-	-	-	-	-	-	-
Stage 1	383	389	-	740	699	-	-	-	-	-	-	-
Stage 2	612	609	-	376	514	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	20.1			20.7			0.6			0.4		
HCM LOS	С			С								
Minor Lane/Major Mvn	nt	NBL	NBT	MRDI	EBLn1V	VRI n1	SBL	SBT	SBR			
Capacity (veh/h)	III	910	-	NDI	342		1249	<u> </u>	JUIN			
HCM Lane V/C Ratio		0.022	-	-	0.306				-			
HCM Control Delay (s	١	9	0	-	20.1	20.7	0.028	0	-			
HCM Lane LOS	)	A	A	-	20.1 C	20.7 C	A	A	-			
HCM 95th %tile Q(veh	1)	0.1	- A	-	1.3	0.7	0.1	- A	-			
How 75th 70the Q(Ver	'/	U. 1	-	•	1.3	0.7	U. I					

	-	*	1	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	ĵ.			र्स	N/	
Traffic Volume (vph)	55	20	13	74	38	7
Future Volume (vph)	55	20	13	74	38	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-5%			1%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.964				0.979	
Flt Protected				0.993	0.959	
Satd. Flow (prot)	1654	0	0	1764	1609	0
Flt Permitted				0.993	0.959	
Satd. Flow (perm)	1654	0	0	1764	1609	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	832			676	1446	
Travel Time (s)	18.9			15.4	32.9	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	10%	9%	2%	3%	10%	2%
Adj. Flow (vph)	64	23	15	86	44	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	0	101	52	0
<b>Enter Blocked Intersection</b>	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	1.05	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: O	ther					
Control Type: Unsignalized						

Synchro 11 Report Page 1

Intersection						
Int Delay, s/veh	2.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1	LDIT	****	ર્ન	Y	HUIN
Traffic Vol, veh/h	55	20	13	74	38	7
Future Vol, veh/h	55	20	13	74	38	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Ğ	Free	Free	Free	Free	Stop	Stop
RT Channelized		None		None	-	
Storage Length	-	-	-	-	0	-
Veh in Median Storage,	. # 0	-	-	0	0	-
Grade, %	-5	-	_	1	-3	
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	10	9	2	3	10	2
Mvmt Flow	64	23	15	86	44	8
						_
N 4 - 1 - 1/N 41 11	-!4		1-!0		/!··· - ···1	
	ajor1		Major2		/linor1	
Conflicting Flow All	0	0	87	0	192	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	116	-
Critical Hdwy	-	-	4.12	-	5.9	5.92
Critical Hdwy Stg 1	-	-	-	-	4.9	-
Critical Hdwy Stg 2	-	-	-	-	4.9	-
Follow-up Hdwy	-	-	2.218	-		3.318
Pot Cap-1 Maneuver	-	-	1509	-	804	991
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1509	-	796	991
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	898	-
Approach	EB		WB		NB	
			1.1		9.7	
HCM LOS	0		1.1			
HCM LOS					Α	
Minor Lane/Major Mvm	t N	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		821	-	-	1509	-
HCM Lane V/C Ratio		0.064	-	-	0.01	-
HCM Control Delay (s)		9.7	-	-	7.4	0
HCM Lane LOS		Α	-	-	Α	Α
HCM 95th %tile Q(veh)		0.2	-	-	0	-
,						

	<b>†</b>	r*	Ļ	ļ	€	*
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	1			र्स	Y	
Traffic Volume (vph)	5	26	34	2	26	70
Future Volume (vph)	5	26	34	2	26	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-3%			3%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.885				0.901	
Flt Protected				0.955	0.987	
Satd. Flow (prot)	1286	0	0	1633	1412	0
Flt Permitted				0.955	0.987	
Satd. Flow (perm)	1286	0	0	1633	1412	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	713			4681	1736	
Travel Time (s)	16.2			106.4	39.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	33%	6%	2%	43%	8%
Adj. Flow (vph)	5	28	37	2	28	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	0	39	104	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.98	1.02	1.07	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: C	)ther					
Control Type: Uncignalized	-					

Intersection						
Int Delay, s/veh	7					
	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	<b>1</b> √	אטוז	JDL	न	NVVL	INVVIX
		2/	2.4			70
Traffic Vol, veh/h	5	26	34	2	26	70
Future Vol, veh/h	5	26	34	2	26	70
Conflicting Peds, #/hr	0	0	0	0	0	0
J	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	-3	-	-	3	-3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	33	6	2	43	8
Mvmt Flow	5	28	37	2	28	76
WWIIICTIOW	J	20	37		20	70
Major/Minor Ma	ajor1	<u> </u>	Major2	N	Minor1	
Conflicting Flow All	0	0	33	0	95	19
Stage 1	-	-	-	-	19	_
Stage 2	-	-	-	-	76	-
Critical Hdwy	_	-	4.16	-	6.23	5.98
Critical Hdwy Stg 1	_	_	-	_	5.23	-
Critical Hdwy Stg 2				_	5.23	
	-	-	- 2.254			2 272
Follow-up Hdwy	-		2.254		3.887	
Pot Cap-1 Maneuver	-	-	.000	-	827	1044
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	864	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1553	-	807	1044
Mov Cap-2 Maneuver	-	-	-	-	807	-
Stage 1	-	_	-	_	910	-
Stage 2	_	_	_	_	843	-
Stage 2					013	
Approach	NB		SB		NW	
HCM Control Delay, s	0		7		9.2	
HCM LOS					Α	
Minor Lane/Major Mvmt	i	NBT	NBRN		SBL	SBT
Capacity (veh/h)		-	-	967	1553	-
HCM Lane V/C Ratio		-	-	0.108	0.024	-
HCM Control Delay (s)		-	-	9.2	7.4	0
HCM Lane LOS		-	-	Α	Α	A
HCM 95th %tile Q(veh)		-	-	0.4	0.1	-
				3.1	517	

	ኘ	1	ļ	¥J	•	7
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	1	<b>↑</b>	1		K.F	
Traffic Volume (vph)	175	1250	779	10	6	64
Future Volume (vph)	175	1250	779	10	6	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16
Grade (%)		1%	1%		2%	
Storage Length (ft)	100			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.877	
Flt Protected	0.950				0.996	
Satd. Flow (prot)	1744	1818	1822	0	1662	0
Flt Permitted	0.950				0.996	
Satd. Flow (perm)	1744	1818	1822	0	1662	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1804	1967		2341	
Travel Time (s)		27.3	29.8		53.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.89	0.89
Heavy Vehicles (%)	3%	4%	3%	44%	2%	13%
Adj. Flow (vph)	184	1316	820	11	7	72
Shared Lane Traffic (%)						
Lane Group Flow (vph)	184	1316	831	0	79	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12	ŭ	16	Ŭ
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	0.86	0.86
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						

Area Type: Control Type: Unsignalized

Other

Int Delay, s/veh  Movement  Lane Configurations  Traffic Vol, veh/h  Future Vol, veh/h  Conflicting Peds, #/l  Sign Control	2.9 NBL	NBT				
Movement Lane Configurations Traffic Vol, veh/h Future Vol, veh/h Conflicting Peds, #/l Sign Control		NBT				
Lane Configurations Traffic Vol, veh/h Future Vol, veh/h Conflicting Peds, #/l Sign Control		IVUI	SBT	SBR	SEL	SER
Traffic Vol, veh/h Future Vol, veh/h Conflicting Peds, #/l Sign Control				אטכ	Y	JLI
Future Vol, veh/h Conflicting Peds, #/l Sign Control		1250	770	10		/ /
Conflicting Peds, #// Sign Control	175	1250	779	10	6	64
Sign Control	175	1250	779	10	6	64
		0	_ 0	0	0	0
DT Chance I'- e d	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Stora	ge,# -	0	0	-	0	-
Grade, %	-	1	1	-	2	-
Peak Hour Factor	95	95	95	95	89	89
Heavy Vehicles, %	3	4	3	44	2	13
Mvmt Flow	184	1316	820	11	7	72
IVIVIIIL FIOW	104	1310	020	1.1	,	12
Major/Minor	Major1	Λ	/lajor2	I.	/linor2	
Conflicting Flow All	831	0	_	0	2510	826
Stage 1	_	_	_	_	826	_
Stage 2	_		_	_	1684	_
Critical Hdwy	4.13	_	_	_	6.82	6.53
Critical Hdwy Stg 1	т. 13		<u>-</u>	-	5.82	- 0.55
	-	-				
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	2.227	-	-		3.518	
Pot Cap-1 Maneuve	r 797	-	-	-	24	340
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	137	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuvo	er 797	-	-	-	18	340
Mov Cap-2 Maneuv		-	-	-	18	-
Stage 1	-	_	_	_	301	_
Stage 2					137	<u>-</u>
Staye 2	-	-	_	-	137	-
Approach	NB		SB		SE	
HCM Control Delay,	s 1.3		0		64.4	
HCM LOS					F	
110111 200					•	
Minor Lane/Major M	vmt	NBL	NBTS	SELn1	SBT	SBR
Capacity (veh/h)		797	-		-	-
HCM Lane V/C Rati	0	0.231	-	0.587	-	-
<b>HCM Control Delay</b>		10.9	_	64.4	-	-
HCM Lane LOS	. ,	В	-	F	_	
HCM 95th %tile Q(v	eh)	0.9	_	3	_	_
	City	0.7		J		

	ᄼ	-	•	1		•	4	1	1	1	ļ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (vph)	11	18	29	5	9	11	84	641	30	14	323	14
Future Volume (vph)	11	18	29	5	9	11	84	641	30	14	323	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Grade (%)		1%			-6%			0%			-7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932			0.940			0.995			0.995	
Flt Protected		0.991			0.991			0.994			0.998	
Satd. Flow (prot)	0	1655	0	0	1728	0	0	1781	0	0	1851	0
Flt Permitted		0.991			0.991			0.994			0.998	
Satd. Flow (perm)	0	1655	0	0	1728	0	0	1781	0	0	1851	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1218			734			1431			1041	
Travel Time (s)		27.7			16.7			21.7			15.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	20	32	5	10	12	91	697	33	15	351	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	64	0	0	27	0	0	821	0	0	381	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.96	1.01	0.96	1.00	1.04	1.00	0.96	1.00	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												

Area Type: Control Type: Unsignalized Other

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	11	18	29	5	9	11	84	641	30	14	323	14
Future Vol, veh/h	11	18	29	5	9	11	84	641	30	14	323	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-6	-	-	0	-	-	-7	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	20	32	5	10	12	91	697	33	15	351	15
Major/Minor N	/linor2		<u> </u>	Minor1		N	/lajor1		<u> </u>	/lajor2		
Conflicting Flow All	1296	1301	359	1311	1292	714	366	0	0	730	0	0
Stage 1	389	389	-	896	896	-	-	-	-	-	-	-
Stage 2	907	912	-	415	396	-	-	-	-	-	-	-
Critical Hdwy	7.32	6.72	6.32	5.92	5.32	5.62	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.32	5.72	-	4.92	4.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.32	5.72	-	4.92	4.32	-	-	-	-	-	-	-
						3.318		-	-	2.218	-	-
Pot Cap-1 Maneuver	129	150	679	210	251	486	1193	-	-	874	-	-
Stage 1	621	595	-	451	484	-	-	-	-	-	-	-
Stage 2	314	335	-	706	689	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	108	128	679	157	214	486	1193	-	-	874	-	-
Mov Cap-2 Maneuver	108	128	-	157	214	-	-	-	-	-	-	-
Stage 1	541	582	-	393	422	-	-	-	-	-	-	-
Stage 2	261	292	-	636	674	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	30.5			20.5			0.9			0.4		
HCM LOS	D			С								
Minor Lane/Major Mvn	nt	NBL	NBT	NBRI	EBLn1V	VBI n1	SBL	SBT	SBR			
Capacity (veh/h)		1193		-	203	259	874	-	-			
HCM Lane V/C Ratio		0.077	_	_		0.105		_	_			
HCM Control Delay (s	)	8.3	0	_	30.5	20.5	9.2	0	_			
HCM Lane LOS	,	Α	A	_	D	C	Α	A	_			
HCM 95th %tile Q(veh	1)	0.2	-	-	1.3	0.3	0.1	-	-			
	•											

	-	•	1	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	f)			4	N.	
Traffic Volume (vph)	74	39	33	45	22	45
Future Volume (vph)	74	39	33	45	22	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-5%			1%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.954				0.909	
Flt Protected				0.979	0.984	
Satd. Flow (prot)	1640	0	0	1464	1589	0
Flt Permitted				0.979	0.984	
Satd. Flow (perm)	1640	0	0	1464	1589	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	832			676	1446	
Travel Time (s)	18.9			15.4	32.9	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	4%	20%	50%	2%	11%	2%
Adj. Flow (vph)	101	53	45	62	30	62
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	0	0	107	92	0
<b>Enter Blocked Intersection</b>	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	1.05	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
JI	)ther					
Control Type: Unsignalized						

Intersection						
Int Delay, s/veh	3.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			र्भ	Y	
Traffic Vol, veh/h	74	39	33	45	22	45
Future Vol, veh/h	74	39	33	45	22	45
Conflicting Peds, #/hr	0	0	0	0	0	0
	Free	Free	Free	Free	Stop	Stop
RT Channelized	riee -					None
			-		-	
Storage Length	<b>д</b> О	-	-	-	0	-
Veh in Median Storage,		-	-	0	0	-
Grade, %	-5	-	-	1	-3	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	4	20	50	2	11	2
Mvmt Flow	101	53	45	62	30	62
Major/Minor Ma	ajor1	Λ	/lajor2	N	/linor1	
Conflicting Flow All	0	0	154	0	280	128
Stage 1	-	U	154	-	128	128
· ·		-				
Stage 2	-	-	-	-	152	-
Critical Hdwy	-	-	4.6	-	5.91	5.92
Critical Hdwy Stg 1	-	-	-	-	4.91	-
Critical Hdwy Stg 2	-	-	-	-	4.91	-
Follow-up Hdwy	-	-	2.65	-	3.599	3.318
Pot Cap-1 Maneuver	-	-	1180	-	724	932
Stage 1	-	-	-	-	895	-
Stage 2	_	-	-	-	876	-
Platoon blocked, %	_	_		_		
Mov Cap-1 Maneuver	_	-	1180	_	696	932
Mov Cap-2 Maneuver	_	_	-	_	696	-
Stage 1	_		_	_	895	_
Ğ		-		-		
Stage 2	-	-	-	-	842	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.5		9.8	
HCM LOS	U		0.0		Α.	
HOW LOS					Α	
Minor Lane/Major Mvmt	<u> </u>	VBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		839	-	-	1180	-
HCM Lane V/C Ratio		0.109	_		0.038	-
HCM Control Delay (s)		9.8	-	-	8.2	0
HCM Lane LOS		A	_	_	A	A
HCM 95th %tile Q(veh)		0.4	-		0.1	-
115W 70W 70W Q(VCH)		0.7			J. 1	

	<b>†</b>	ß	Ļ	Ţ	€	*
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	f)			ર્ન	M	
Traffic Volume (vph)	6	23	161	8	13	117
Future Volume (vph)	6	23	161	8	13	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-3%			3%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.893				0.878	
Flt Protected				0.955	0.995	
Satd. Flow (prot)	1291	0	0	1508	1377	0
Flt Permitted				0.955	0.995	
Satd. Flow (perm)	1291	0	0	1508	1377	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	713			4681	1736	
Travel Time (s)	16.2			106.4	39.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	2%	36%	14%	25%	67%	13%
Adj. Flow (vph)	7	27	192	10	15	139
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	0	0	202	154	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.98	1.02	1.07	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	)ther					
Control Type: Unsignalized						

Intersection						
Int Delay, s/veh	7.7	_			_	
Movement N	IBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	₽	HUIK	UDL	4	¥	717711
Traffic Vol, veh/h	6	23	161	8	13	117
Future Vol, veh/h	6	23	161	8	13	117
Conflicting Peds, #/hr	0	0	0	0	0	0
	ree	Free	Free	Free	Stop	Stop
RT Channelized		None	-		310p	None
Storage Length	-	NONE -	_	None -	0	None -
	- # 0			0	0	
Veh in Median Storage,		-	-			-
Grade, %	-3	- 0.4	- 0.4	3	-3	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	36	14	25	67	13
Mvmt Flow	7	27	192	10	15	139
Major/Minor Maj	ior1	N	Major2	N	Minor1	
Conflicting Flow All	0	0	34	0	415	21
Stage 1	-	-	-	-	21	
Stage 2	_		_	_	394	_
Critical Hdwy	_	_	4.24	-	6.47	6.03
Critical Hdwy Stg 1		_		<u>-</u>	5.47	0.03
Critical Hdwy Stg 2	_	-	_	_	5.47	
Follow-up Hdwy	-	-	2.326		4.103	
Pot Cap-1 Maneuver		-	1503		522	1027
	-	-		-		
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	599	-
Platoon blocked, %	-	-	4500	-	455	1007
Mov Cap-1 Maneuver	-	-	.000	-	455	1027
Mov Cap-2 Maneuver	-	-	-	-	455	-
Stage 1	-	-	-	-	000	-
Stage 2	-	-	-	-	522	-
Approach	NB		SB		NW	
HCM Control Delay, s	0		7.4		9.8	
HCM LOS	U		7.4			
HCIVI LU3					А	
Minor Lane/Major Mvmt		NBT	NBRN	WLn1	SBL	SBT
Capacity (veh/h)		-	_	912	1503	-
HCM Lane V/C Ratio		-	_		0.128	-
HCM Control Delay (s)		_	_	9.8	7.7	0
HCM Lane LOS		-	_	A	Α	A
HCM 95th %tile Q(veh)		-	-	0.6	0.4	-
2(1011)						

	ነ	1	ļ	M	•	>
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	1	<b>^</b>	1		M	
Traffic Volume (vph)	132	548	1138	3	5	213
Future Volume (vph)	132	548	1138	3	5	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16
Grade (%)		1%	1%		2%	
Storage Length (ft)	100			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.868	
Flt Protected	0.950				0.999	
Satd. Flow (prot)	1562	1719	1767	0	1694	0
Flt Permitted	0.950				0.999	
Satd. Flow (perm)	1562	1719	1767	0	1694	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1804	1967		2341	
Travel Time (s)		27.3	29.8		53.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	15%	10%	7%	2%	60%	8%
Adj. Flow (vph)	138	571	1185	3	5	222
Shared Lane Traffic (%)						
Lane Group Flow (vph)	138	571	1188	0	227	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12	, ,	16	, i
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	0.86	0.86
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						

Other

Area Type: Control Type: Unsignalized

tersection						
Int Delay, s/veh 22.	.9					
Movement NB	31	NBT	SBT	SBR	SEL	SER
	ሻ	<u>₩</u>	\$	אפט	Y	OLIN
Traffic Vol, veh/h 13		548	1138	3	5	213
Future Vol, veh/h 13		548	1138	3	5	213
-	0	0	0	0	0	0
Sign Control Fre		Free	Free	Free	Stop	Stop
RT Channelized		None	-		Stop -	None
Storage Length 10		-		-	0	-
Veh in Median Storage, #		0	0		0	
Grade, %	-	1	1	-	2	-
	96	96	96	96	96	96
		10				
	15		7	2	60	8
Mvmt Flow 13	8	571	1185	3	5	222
Major/Minor Major	r1	N	Najor2	١	/linor2	
Conflicting Flow All 118		0			2034	1187
Stage 1	-	-	-		1187	-
Stage 2	_	_	_	_	847	_
Critical Hdwy 4.2		_			7.4	6.48
Critical Hdwy Stg 1	<u>-</u>		_	-	6.4	0.40
Critical Hdwy Stg 2	-	-	-		6.4	
		-	-			
Follow-up Hdwy 2.33		-	-	-		3.372
Pot Cap-1 Maneuver 54		-	-	-		~ 209
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	306	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver 54	.4	-	-	-		~ 209
Mov Cap-2 Maneuver	-	-	-	-	26	-
Stage 1	-	-	-	-	145	-
Stage 2	-	-	-	-	306	-
Annroach	D		CD		СГ	
Approach N			SB		SE	
HCM Control Delay, s 2.	. /		0		205.6	
HCM LOS					F	
Minor Lane/Major Mvmt		NBL	NBT S	SELn1	SBT	SBR
Capacity (veh/h)		544	-		-	- ODIT
HCM Lane V/C Ratio	Λ	).253		1.262		-
		13.8		205.6	-	-
HCM Long LOS			-		-	-
HCM Lane LOS		В	-	F	-	-
HCM 95th %tile Q(veh)		1	-	12.6	-	-
Notes						
~: Volume exceeds capaci	tv	\$: [	)elav e	xceeds	300s	+: Co
	J	,. <u>.</u>	<b>,</b> 0			0

05/19/2023

	•	•	1	<i>&gt;</i>	1	Ţ
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		1			ન
Traffic Volume (vph)	87	11	40	74	10	52
Future Volume (vph)	87	11	40	74	10	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	12	12	10
Grade (%)	0%		-2%			2%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.985		0.913			
Flt Protected	0.957					0.992
Satd. Flow (prot)	1706	0	1527	0	0	1620
Flt Permitted	0.957					0.992
Satd. Flow (perm)	1706	0	1527	0	0	1620
Link Speed (mph)	30		30			30
Link Distance (ft)	513		1280			934
Travel Time (s)	11.7		29.1			21.2
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	5%	5%	11%	5%	5%	8%
Adj. Flow (vph)	119	15	55	101	14	71
Shared Lane Traffic (%)						
Lane Group Flow (vph)	134	0	156	0	0	85
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.08	0.99	1.01	1.11
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	)ther					
Control Type: Unsignalized						

Intersection						
Int Delay, s/veh	4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		ĵ.			4
Traffic Vol, veh/h	87	11	40	74	10	52
Future Vol, veh/h	87	11	40	74	10	52
Conflicting Peds, #/hr		0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- -	None		None	-	None
Storage Length	0	-	_	-	_	-
Veh in Median Storage		_	0	-	-	0
Grade, %	0	_	-2	_	_	2
Peak Hour Factor	73	73	73	73	73	73
	5	5	11	5	5	8
Heavy Vehicles, %					14	
Mvmt Flow	119	15	55	101	14	71
Major/Minor N	/linor1	N	/lajor1	N	/lajor2	
Conflicting Flow All	205	106	0	0	156	0
Stage 1	106	_	-	-	-	_
Stage 2	99	_	_	_	_	_
Critical Hdwy	6.45	6.25	_	-	4.15	_
Critical Hdwy Stg 1	5.45	-	_	_	- 1.10	_
Critical Hdwy Stg 2	5.45	_	_	_	_	_
	3.545		-		2.245	-
Pot Cap-1 Maneuver	777	940			1406	
Stage 1	911	740	_	-	1400	-
Stage 2	917			-	-	_
	917	-	-	-	-	-
Platoon blocked, %	7/0	0.40	-	-	140/	-
Mov Cap-1 Maneuver	769	940	-	-	1406	-
Mov Cap-2 Maneuver	769	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s			0		1.2	
HCM LOS	В		U		1.2	
HCIVI LOS	Ь					
Minor Lane/Major Mvn	nt	NBT	NBRW	VBLn1	SBL	SBT
Capacity (veh/h)		-	-	785	1406	-
HCM Lane V/C Ratio		-	-	0.171	0.01	-
HCM Control Delay (s)	)	_	_	10.5	7.6	0
HCM Lane LOS		-	-	В	Α	A
HCM 95th %tile Q(veh	1)	-	-	0.6	0	-
211170110 2(101	,					

	×	۲	*	/	6	×
Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	14		1			र्
Traffic Volume (vph)	14	28	39	12	24	48
Future Volume (vph)	14	28	39	12	24	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	12	12	10
Grade (%)	0%		3%			0%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.910		0.969			
Flt Protected	0.984					0.984
Satd. Flow (prot)	1620	0	1544	0	0	1631
Flt Permitted	0.984					0.984
Satd. Flow (perm)	1620	0	1544	0	0	1631
Link Speed (mph)	30		30			30
Link Distance (ft)	541		905			1446
Travel Time (s)	12.3		20.6			32.9
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	5%	5%	11%	5%	5%	8%
Adj. Flow (vph)	19	38	53	16	33	66
Shared Lane Traffic (%)						
Lane Group Flow (vph)	57	0	69	0	0	99
<b>Enter Blocked Intersection</b>	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.11	1.02	1.00	1.09
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type: O	ther					
Control Type: Unsignalized						

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	Y		7>			4
Traffic Vol, veh/h	14	28	39	12	24	48
Future Vol, veh/h	14	28	39	12	24	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- -	None	-	None	-	
Storage Length	0	-	_	-	_	-
Veh in Median Storage		_	0	-	_	0
Grade, %	0	-	3	-	-	0
	73	73	73	73	73	73
Peak Hour Factor						
Heavy Vehicles, %	5	5	11	5	5	8
Mvmt Flow	19	38	53	16	33	66
Major/Minor N	/linor1	N	/lajor1	N	Major2	
Conflicting Flow All	193	61	0	0	69	0
Stage 1	61	-	-	-	-	-
Stage 2	132	-	_	_	_	-
Critical Hdwy	6.45	6.25	_	_	4.15	-
Critical Hdwy Stg 1	5.45	-	-		_	-
Critical Hdwy Stg 2	5.45	_	-	-	_	_
	3.545	3 345	_	_	2.245	_
Pot Cap-1 Maneuver	789	996	_		1513	_
Stage 1	954	-	_	_	1010	_
Stage 2	887	_		_	_	_
Platoon blocked, %	007	-			-	
Mov Cap-1 Maneuver	771	996	-	-	1513	
	771			-		
Mov Cap-2 Maneuver		-	-	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	867	-	-	-	-	-
Approach	WB		NE		SW	
HCM Control Delay, s	9.2		0		2.5	
HCM LOS	Α		-			
110M 200	, ,					
						0117
Minor Lane/Major Mvr	<u>nt</u>	NET	NERV		SWL	SWT
Capacity (veh/h)		-	-		1513	-
HCM Lane V/C Ratio		-	-	0.063	0.022	-
HCM Control Delay (s	)	-	-	9.2	7.4	0
HCM Lane LOS		-	-	Α	Α	Α
HCM 95th %tile Q(veh	1)	-	-	0.2	0.1	-

	۶	-	•	•		•	1	1	1	1	Ţ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (vph)	36	16	71	21	17	14	17	235	19	30	561	35
Future Volume (vph)	36	16	71	21	17	14	17	235	19	30	561	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Grade (%)		1%			-6%			0%			-7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.964			0.991			0.992	
Flt Protected		0.986			0.980			0.997			0.998	
Satd. Flow (prot)	0	1582	0	0	1702	0	0	1743	0	0	1808	0
Flt Permitted		0.986			0.980			0.997			0.998	
Satd. Flow (perm)	0	1582	0	0	1702	0	0	1743	0	0	1808	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1218			734			1431			1041	
Travel Time (s)		27.7			16.7			21.7			15.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	4%	5%	5%	4%	5%
Adj. Flow (vph)	42	19	83	24	20	16	20	273	22	35	652	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	144	0	0	60	0	0	315	0	0	728	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.96	1.01	0.96	1.00	1.04	1.00	0.96	1.00	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												

Area Type: Other Control Type: Unsignalized

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	36	16	71	21	17	14	17	235	19	30	561	35
Future Vol, veh/h	36	16	71	21	17	14	17	235	19	30	561	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-6	-	-	0	-	-	-7	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	5	5	5	5	5	5	5	4	5	5	4	5
Mvmt Flow	42	19	83	24	20	16	20	273	22	35	652	41
Major/Minor N	/linor2		ľ	Minor1		[	Major1		N	Major2		
Conflicting Flow All	1085	1078	673	1118	1087	284	693	0	0	295	0	0
Stage 1	743	743	-	324	324	-	-	-	-	-	-	-
Stage 2	342	335	-	794	763	-	-	-	-	-	-	-
Critical Hdwy	7.35	6.75	6.35	5.95	5.35	5.65	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.35	5.75	-	4.95	4.35	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.35	5.75	-	4.95	4.35	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	180	203	442	264	306	784	888	-	-	1249	-	-
Stage 1	386	401	-	760	718	-	-	-	-	-	-	-
Stage 2	654	625	-	491	527	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	158	188	442	188	284	784	888	-	-	1249	-	-
Mov Cap-2 Maneuver	158	188	-	188	284	-	-	-	-	-	-	-
Stage 1	376	383	-	739	699	-	-	-	-	-	-	-
Stage 2	606	608	-	362	503	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	34.6			21.7			0.6			0.4		
HCM LOS	D			С								
Minor Lane/Major Mvn	nt	NBL	NBT	NBRI	EBLn1V	VBLn1	SBL	SBT	SBR			
Capacity (veh/h)		888		-	260		1249	_	-			
HCM Lane V/C Ratio		0.022	-	-	0.55		0.028	-	-			
HCM Control Delay (s)	)	9.1	0	-	34.6	21.7	8	0	-			
HCM Lane LOS		Α	A	-	D	С	A	A	-			
HCM 95th %tile Q(veh	1)	0.1	-	-	3	0.8	0.1	-	-			

	-	•	1	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			ર્ન	Y	
Traffic Volume (vph)	55	30	61	74	47	46
Future Volume (vph)	55	30	61	74	47	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-5%			1%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.952				0.934	
Flt Protected				0.978	0.975	
Satd. Flow (prot)	1635	0	0	1743	1600	0
Flt Permitted				0.978	0.975	
Satd. Flow (perm)	1635	0	0	1743	1600	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	832			676	1446	
Travel Time (s)	18.9			15.4	32.9	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	10%	9%	2%	3%	10%	2%
Adj. Flow (vph)	64	35	71	86	55	53
Shared Lane Traffic (%)						
Lane Group Flow (vph)	99	0	0	157	108	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	1.05	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: C	Other					
Control Typo: Uncignalized						

Intersection						
Int Delay, s/veh	4.5					
Movement E	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>	LDI	WDL	4	WDL	NDK
Traffic Vol, veh/h	55	30	61	74	47	46
	55					
Future Vol, veh/h		30	61	74	47	46
Conflicting Peds, #/hr	0	0	0	0	0	0
	ree	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,		-	-	0	0	-
Grade, %	-5	-	-	1	-3	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	10	9	2	3	10	2
Mvmt Flow	64	35	71	86	55	53
		_		_		
	jor1		Major2	N	/linor1	
Conflicting Flow All	0	0	99	0	310	82
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	-	-	4.12	-	5.9	5.92
Critical Hdwy Stg 1	-	-	-	-	4.9	-
Critical Hdwy Stg 2	_	_	_	_	4.9	_
Follow-up Hdwy	_	_	2.218	_		3.318
Pot Cap-1 Maneuver	_		1494	-		984
Stage 1	_	_	-	_	934	-
Stage 2	_	_	_	_	822	_
Platoon blocked, %	-	-	-	-	022	-
		-	1404		///	004
Mov Cap-1 Maneuver	-	-	1494	-	666	984
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	781	-
Annroach	EB		WB		NB	
Approach						
HCM Control Delay, s	0		3.4		10.3	
HCM LOS					В	
Minor Lane/Major Mvmt	N	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	- 1	793	LDI		1494	VVDT
			-			-
HCM Control Polos (a)		0.136	-		0.047	-
HCM Control Delay (s)		10.3	-	-	7.5	0
HCM Lane LOS		В	-	-	A	Α
HCM 95th %tile Q(veh)		0.5	-	-	0.1	-

	<b>†</b>	۴	Ļ	ļ	•	1
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	13			र्स	Y	
Traffic Volume (vph)	9	26	152	6	26	213
Future Volume (vph)	9	26	152	6	26	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	11	12
Grade (%)	-3%			3%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.901				0.880	
Flt Protected				0.954	0.995	
Satd. Flow (prot)	1345	0	0	1631	1460	0
Flt Permitted				0.954	0.995	
Satd. Flow (perm)	1345	0	0	1631	1460	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	713			4681	1736	
Travel Time (s)	16.2			106.4	39.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	33%	6%	2%	43%	8%
Adj. Flow (vph)	10	28	165	7	28	232
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	0	0	172	260	0
<b>Enter Blocked Intersection</b>	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.98	1.02	1.07	1.02	0.98
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
	Other					

Area Type: Of Control Type: Unsignalized

Intersection						
Int Delay, s/veh	8.4					
	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	1\D1	אטוז	JDL	अ	NVVL	IVVVIX
		2/	150			212
Traffic Vol, veh/h	9	26	152	6	26	213
Future Vol, veh/h	9	26	152	6	26	213
Conflicting Peds, #/hr	0	0	0	_ 0	0	0
J	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,	, # 0	-	-	0	0	-
Grade, %	-3	-	-	3	-3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	33	6	2	43	8
Mvmt Flow	10	28	165	7	28	232
					==	
	ajor1	N	Major2		Vinor1	
Conflicting Flow All	0	0	38	0	361	24
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	337	-
Critical Hdwy	-	-	4.16	-	6.23	5.98
Critical Hdwy Stg 1	-	-	-	-	5.23	-
Critical Hdwy Stg 2	_	_	_	_	5.23	_
Follow-up Hdwy	_	_	2.254	_	3.887	3 372
Pot Cap-1 Maneuver	-	_		-	599	1037
Stage 1	_	_	-	_	906	-
Stage 2	_		-	_	677	_
Platoon blocked, %		-	-		077	-
-	-	-	1547	-	רמר	1007
Mov Cap-1 Maneuver	-	-	1547	-	535	1037
Mov Cap-2 Maneuver	-	-	-	-	535	-
Stage 1	-	-	-	-	906	-
Stage 2	-	-	-	-	605	-
Approach	NB		SB		NW	
HCM Control Delay, s	0		7.3		10.3	
	U		1.3			
HCM LOS					В	
Minor Lane/Major Mvmt	t	NBT	NBRN	WLn1	SBL	SBT
Capacity (veh/h)		_	-		1547	_
HCM Lane V/C Ratio		_	_	0.276		_
HCM Control Delay (s)		_	_	10.3	7.6	0
HCM Lane LOS		_	_	В	Α	A
HCM 95th %tile Q(veh)				1.1	0.4	-
HOW /JULY JOURG Q(VEIT)				1.1	0.4	_

	ሻ	1	ļ	¥J	•	7
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	M	<b>^</b>	1		KA.	
Traffic Volume (vph)	245	1250	779	10	6	182
Future Volume (vph)	245	1250	779	10	6	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16
Grade (%)		1%	1%		2%	
Storage Length (ft)	100			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.869	
Flt Protected	0.950				0.998	
Satd. Flow (prot)	1744	1818	1822	0	1641	0
Flt Permitted	0.950				0.998	
Satd. Flow (perm)	1744	1818	1822	0	1641	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1804	1967		2341	
Travel Time (s)		27.3	29.8		53.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	4%	3%	44%	2%	13%
Adj. Flow (vph)	258	1316	820	11	6	192
Shared Lane Traffic (%)						
Lane Group Flow (vph)	258	1316	831	0	198	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12	ŭ	16	Ŭ
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	0.86	0.86
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						

Area Type: Control Type: Unsignalized

Other

Intersection						
Int Delay, s/veh	11					
	NBL	NBT	SBT	SBR	SEL	SER
				SDK		SER
Lane Configurations	7	1050	770	10	Y	100
Traffic Vol, veh/h	245	1250	779	10	6	182
Future Vol, veh/h	245	1250	779	10	6	182
Conflicting Peds, #/hr	0	0	0	0	0	0
	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage,	# -	0	0	-	0	-
Grade, %	-	1	1	-	2	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	4	3	44	2	13
Mvmt Flow	258	1316	820	11	6	192
IVIVIIIL I IOW	250	1310	020	- 11	U	172
Major/Minor Ma	ajor1	Λ	/lajor2	N	/linor2	
Conflicting Flow All	831	0			2658	826
Stage 1	-	-	_	-	826	-
Stage 2	_	_	_	_	1832	_
	4.13	_		_	6.82	6.53
	4.13	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
	.227	-	-	-	3.518	
Pot Cap-1 Maneuver	797	-	-	-	19	340
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	114	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	797	-	-	-	13	340
Mov Cap-2 Maneuver	-	-	-	-	13	-
Stage 1	-	_	-	_	265	_
Stage 2	_	_	_	_	114	_
Stage 2					117	
Approach	NB		SB		SE	
HCM Control Delay, s	1.9		0		130	
HCM LOS					F	
Minor Lane/Major Mvmt	t	NBL	NBT S	SELn1	SBT	SBR
Capacity (veh/h)		797	-	189	-	-
HCM Lane V/C Ratio		0.324	-	1.047	-	-
HCM Control Delay (s)		11.7	-	130	-	-
HCM Lane LOS		В	_	F	-	-
HCM 95th %tile Q(veh)		1.4	-	9.2	_	-
				,. <b>_</b>		

	1	•	1	1	1	ļ
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		ĵ.			र्स
Traffic Volume (vph)	105	14	66	127	16	50
Future Volume (vph)	105	14	66	127	16	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	12	12	10
Grade (%)	0%		-2%			2%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984		0.911			
Flt Protected	0.958					0.988
Satd. Flow (prot)	1706	0	1524	0	0	1617
Flt Permitted	0.958					0.988
Satd. Flow (perm)	1706	0	1524	0	0	1617
Link Speed (mph)	30		30			30
Link Distance (ft)	513		1280			934
Travel Time (s)	11.7		29.1			21.2
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	5%	5%	11%	5%	5%	8%
Adj. Flow (vph)	144	19	90	174	22	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	163	0	264	0	0	90
<b>Enter Blocked Intersection</b>	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.08	0.99	1.01	1.11
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
J1	Other					
Control Type: Unsignalized						

Intersection						
Int Delay, s/veh	4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL	WDIN	1\D1	NDIX	JDL	- उठा स्
Traffic Vol, veh/h	105	14	66	127	16	50
Future Vol, veh/h	105	14	66	127	16	50
Conflicting Peds, #/hr	0	0	00	0	0	0
Sign Control				Free	Free	Free
RT Channelized	Stop -	Stop	Free	None		
		None	-		-	
Storage Length	0	-	-	-	-	-
Veh in Median Storage		-	0	-	-	0
Grade, %	0	-	-2	-	-	2
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	5	5	11	5	5	8
Mvmt Flow	144	19	90	174	22	68
Major/Minor N	/linor1	١	/lajor1	N	/lajor2	
Conflicting Flow All	289	177	0	0	264	0
Stage 1	177	-	-	-	204	-
Stage 2	112	_	_	_	_	_
Critical Hdwy	6.45	6.25	_	_	4.15	_
Critical Hdwy Stg 1	5.45	0.23	-	-	4.15	-
Critical Hdwy Stg 2	5.45	-	-		-	-
	3.545	- 2 24E	-	-	2.245	-
			-	-	1283	-
Pot Cap-1 Maneuver	695	858	-	-	1283	-
Stage 1	846	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Platoon blocked, %	(00	050	-	-	1000	-
Mov Cap-1 Maneuver	682	858	-	-	1283	-
Mov Cap-2 Maneuver	682	-	-	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	889	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s			0		1.9	
HCM LOS	В		U		1.7	
TICIVI LOS	D					
Minor Lane/Major Mvn	nt	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)		-	-	699	1283	-
HCM Lane V/C Ratio		-	-	0.233	0.017	-
HCM Control Delay (s)	)	-	-	11.7	7.9	0
HCM Lane LOS		-	-	В	Α	Α
HCM 95th %tile Q(veh	1)	-	-	0.9	0.1	-

	*	٤	×	/	6	×
Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	M		ĵ.			र्स
Traffic Volume (vph)	17	34	59	21	41	50
Future Volume (vph)	17	34	59	21	41	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	12	12	10
Grade (%)	0%		3%			0%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.909		0.964			
Flt Protected	0.984					0.978
Satd. Flow (prot)	1619	0	1539	0	0	1626
Flt Permitted	0.984					0.978
Satd. Flow (perm)	1619	0	1539	0	0	1626
Link Speed (mph)	30		30			30
Link Distance (ft)	541		905			1446
Travel Time (s)	12.3		20.6			32.9
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	5%	5%	11%	5%	5%	8%
Adj. Flow (vph)	23	47	81	29	56	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	0	110	0	0	124
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.11	1.02	1.00	1.09
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
	Other					

Area Type: Oth-Control Type: Unsignalized

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	WDL	VVDI	T≱	IVLI	JVVL	- SVV I
		2.4		21	11	
Traffic Vol, veh/h	17	34	59	21	41	50
Future Vol, veh/h	17	34	59	21	41	50
Conflicting Peds, #/hr		0	0	0	_ 0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storag	e,#0	-	0	-	-	0
Grade, %	0	-	3	-	-	0
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	5	5	11	5	5	8
Mvmt Flow	23	47	81	29	56	68
IVIVIIIL I IOVV	23	7/	01	21	30	00
Major/Minor N	/linor1	N	/lajor1	N	Major2	
Conflicting Flow All	276	96	0	0	110	0
Stage 1	96	-	-	-	-	-
Stage 2	180	-	-	-	-	-
Critical Hdwy	6.45	6.25	_	_	4.15	_
Critical Hdwy Stg 1	5.45	-	_	_	-	_
Critical Hdwy Stg 2	5.45	_	_	_	-	_
	3.545		-		2.245	
	707	952			1462	
Pot Cap-1 Maneuver			-	-	1402	-
Stage 1	920	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	679	952	-	-	1462	-
Mov Cap-2 Maneuver	679	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	810	-	-	-	-	-
<del></del>						
Approach	WB		NE		SW	
HCM Control Delay, s	9.7		0		3.4	
HCM LOS	Α					
N	1	NET	NIEDA	/DI :=1	CMI	CMT
Minor Lane/Major Mvr	nı	NET	NERV	/BLn1	SWL	SWT
Capacity (veh/h)		-	-		1462	-
HCM Lane V/C Ratio		-	-	0.083		-
HCM Control Delay (s	)	-	-	9.7	7.6	0
HCM Lane LOS		-	-	Α	Α	Α
HCM 95th %tile Q(veh	1)	-	-	0.3	0.1	-

	•	-	•	•		•	4	1	1	/	ļ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (vph)	45	24	29	5	15	11	84	641	30	14	323	55
Future Volume (vph)	45	24	29	5	15	11	84	641	30	14	323	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Grade (%)		1%			-6%			0%			-7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.951			0.995			0.981	
Flt Protected		0.978			0.992			0.994			0.998	
Satd. Flow (prot)	0	1682	0	0	1750	0	0	1781	0	0	1825	0
Flt Permitted		0.978			0.992			0.994			0.998	
Satd. Flow (perm)	0	1682	0	0	1750	0	0	1781	0	0	1825	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1218			734			1431			1041	
Travel Time (s)		27.7			16.7			21.7			15.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	26	32	5	16	12	91	697	33	15	351	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	107	0	0	33	0	0	821	0	0	426	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.96	1.01	0.96	1.00	1.04	1.00	0.96	1.00	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												

Area Type: Control Type: Unsignalized Other

Intersection												
Int Delay, s/veh	7.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	45	24	29	5	15	11	84	641	30	14	323	55
Future Vol, veh/h	45	24	29	5	15	11	84	641	30	14	323	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-6	-	-	0	-	-	-7	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	26	32	5	16	12	91	697	33	15	351	60
Major/Minor N	/linor2			Minor1			Major1		N	/lajor2		
Conflicting Flow All	1321	1323	381	1336	1337	714	411	0	0	730	0	0
Stage 1	411	411	-	896	896	-	-	-	-	-	-	-
Stage 2	910	912	-	440	441	-	-	-	-	-	-	-
Critical Hdwy	7.32	6.72	6.32	5.92	5.32	5.62	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.32	5.72	-	4.92	4.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.32	5.72	-	4.92	4.32	-	-	-	-	-	-	-
	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	124	145	659	204	239	486	1148	-	-	874	-	-
Stage 1	604	581	-	451	484	-	-	-	-	-	-	-
Stage 2	313	335	-	690	668	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	100	123	659	144	202	486	1148	-	-	874	-	-
Mov Cap-2 Maneuver	100	123	-	144	202	-	-	-	-	-	-	-
Stage 1	523	568	-	391	419	-	-	-	-	-	-	-
Stage 2	254	290	-	613	653	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	82.4			22.8			0.9			0.3		
HCM LOS	F			С								
Minor Lane/Major Mvn	nt	NBL	NBT	NBRI	EBLn1V	VBLn1	SBL	SBT	SBR			
Capacity (veh/h)		1148	-	-	142	236	874	-	-			
HCM Lane V/C Ratio		0.08	-	-		0.143		-	-			
HCM Control Delay (s)	)	8.4	0	-	82.4	22.8	9.2	0	-			
HCM Lane LOS		A	A	-	F	C	A	A	-			
HCM 95th %tile Q(veh	1)	0.3		_	4.5	0.5	0.1	_	-			
	•											

	ኘ	1	ļ	<b>₩</b> J	•	>
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	*	<b>↑</b>	1>		*	7
Traffic Volume (vph)	132	548	1138	3	5	213
Future Volume (vph)	132	548	1138	3	5	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	16	16
Grade (%)		1%	1%		2%	
Storage Length (ft)	100	170	170	0	0	100
Storage Lanes	100			0	1	1
Taper Length (ft)	25			0	25	I
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	1.00	1.00	0.850
FIt Protected	0.950				0.950	0.000
		1604	1640	0		1470
Satd. Flow (prot)	1458	1604	1649	U	1266	1678
Flt Permitted	0.120	1/04	1/40	^	0.950	1/70
Satd. Flow (perm)	184	1604	1649	0	1266	1678
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						103
Link Speed (mph)		45	45		30	
Link Distance (ft)		1804	1967		2341	
Travel Time (s)		27.3	29.8		53.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	15%	10%	7%	2%	60%	8%
Adj. Flow (vph)	138	571	1185	3	5	222
Shared Lane Traffic (%)						
Lane Group Flow (vph)	138	571	1188	0	5	222
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		10	10		16	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		10	10		10	
Headway Factor	1.10	1.10	1.10	1.10	0.86	0.86
Turning Speed (mph)	1.10	1.10	1.10	9	15	9
Number of Detectors	2	2	2	7	2	1
Detector Template	Z	Z	Z			-
·	02	02	0.2		0.2	Right
Leading Detector (ft)	83	83	83		83	20
Trailing Detector (ft)	-5	-5	-5		-5	0
Detector 1 Position(ft)	-5	-5	-5		-5	0
Detector 1 Size(ft)	40	40	40		40	20
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	43	43	43		43	
Detector 2 Size(ft)	40	40	40		40	
Detector 2 Type	CI+Ex	CI+Ex	CI+Ex		CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	
Turn Type	pm+pt	NA	NA		Prot	pm+ov
Protected Phases	5	2	6		4	5
Permitted Phases	2		U		7	4
Detector Phase						
	5	2	6		4	5

	1	1	<b>↓</b>	<b>₩</b> J	•	<b>→</b>
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Switch Phase						
Minimum Initial (s)	3.0	5.0	5.0		5.0	3.0
Minimum Split (s)	8.0	23.0	23.0		10.0	8.0
Total Split (s)	12.0	97.0	85.0		23.0	12.0
Total Split (%)	10.0%	80.8%	70.8%		19.2%	10.0%
Maximum Green (s)	7.0	92.0	80.0		18.0	7.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	2.0	2.0	2.0		2.0	2.0
Recall Mode	None	Min	Min		None	None
v/c Ratio	0.53	0.37	0.89		0.07	0.90
Control Delay	11.1	1.3	18.3		48.8	61.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	11.1	1.3	18.3		48.8	61.5
Queue Length 50th (ft)	0	0	326		3	~83
Queue Length 95th (ft)	47	94	#1094		16	157
Internal Link Dist (ft)		1724	1887		2261	
Turn Bay Length (ft)	100					100
Base Capacity (vph)	260	1556	1334		228	246
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.53	0.37	0.89		0.02	0.90

### **Intersection Summary**

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 100

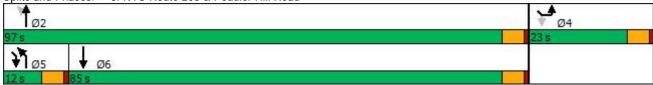
Natural Cycle: 90

### Control Type: Actuated-Uncoordinated

- Volume exceeds capacity, queue is theoretically infinite.
  - Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: NYS Route 208 & Peddler Hill Road



	ì	t	Ţ	M	•	>
Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	M	<b>↑</b>	₽.		1	7
Traffic Volume (veh/h)	132	548	1138	3	5	213
Future Volume (veh/h)	132	548	1138	3	5	213
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1672	1746	1790	1864	1027	1828
Adj Flow Rate, veh/h	138	571	1185	3	5	222
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	15	10	7	2	60	8
Cap, veh/h	157	1340	1191	3	146	322
Arrive On Green	0.06	0.77	0.67	0.67	0.15	0.15
Sat Flow, veh/h	1592	1746	1785	5	978	1549
Grp Volume(v), veh/h	138	571	0	1188	5	222
Grp Sat Flow(s), veh/h/ln	1592	1746	0	1790	978	1549
Q Serve(g_s), s	5.4	13.6	0.0	78.8	0.5	15.9
Cycle Q Clear(g_c), s	5.4	13.6	0.0	78.8	0.5	15.9
Prop In Lane	1.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	157	1340	0	1194	146	322
V/C Ratio(X)	0.88	0.43	0.00	0.99	0.03	0.69
Avail Cap(c_a), veh/h	157	1340	0	1194	147	323
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	4.8	0.0	19.7	43.6	43.9
Incr Delay (d2), s/veh	37.6	0.1	0.0	24.7	0.0	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	3.6	0.0	34.8	0.0	13.7
Unsig. Movement Delay, s/ve		3.0	0.0	J4.0	0.1	13.7
LnGrp Delay(d),s/veh	77.6	4.9	0.0	44.5	43.6	49.0
	77.0 E			44.5 D		
LnGrp LOS	<u> </u>	A	A	υ	D	D
Approach Vol, veh/h		709	1188		227	
Approach Delay, s/veh		19.0	44.5		48.9	
Approach LOS		В	D		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.0		22.9	12.0	85.0
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s	3	92.0		18.0	7.0	80.0
Max Q Clear Time (q_c+l1),		15.6		17.9	7.4	80.8
Green Ext Time (p_c), s		1.8		0.0	0.0	0.0
Intersection Summary		1.0		3.0	3.0	3.0
			2/ Г			
HCM 6th Ctrl Delay			36.5			
HCM 6th LOS			D			

Tartic Volume (uph)		٠	-	•	•	+	•	1	1	~	1	Ţ	1
Traffic Volume (vph)   36   16   71   21   17   14   17   235   19   30   561   3   16aal Flow (vphp)   1900   1	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	Lane Configurations		4			4			4			4	
	Traffic Volume (vph)	36		71	21		14	17	235	19	30	561	35
Lane Width (ft)	Future Volume (vph)	36	16	71	21	17	14	17	235	19	30	561	35
Lane Width (ft)	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Unil. Factor	Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Fit	Grade (%)		1%			-6%			0%			-7%	
Fit Protected	Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd Flow (proft)   0   1582   0   0   1702   0   0   1743   0   0   1808   Fill Permitted   0.880   0.870   0.870   0.951   0.0977   0.0977   0.0077   0.	Frt		0.922			0.964			0.991			0.992	
Fill Permitted	Flt Protected		0.986			0.980			0.997			0.998	
Satid. Flow (perm)	Satd. Flow (prot)	0	1582	0	0	1702	0	0	1743	0	0	1808	0
Right Turn on Red   Yes	Flt Permitted		0.880			0.870			0.951			0.977	
Said, Flow (RTOR)	Satd. Flow (perm)	0	1412	0	0	1511	0	0	1662	0	0	1770	0
Link Speed (mph)	Right Turn on Red			Yes			Yes			Yes			Yes
Link Distance (ff)	Satd. Flow (RTOR)		69						10			8	
Travel Time (s)	Link Speed (mph)		30			30			45			45	
Peak Hour Factor   0.86   0.													
Heavy Vehicles (%)	Travel Time (s)		27.7			16.7			21.7			15.8	
Adj. Flow (vph)	Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)   Lane Group Flow (ph)   0	Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	4%	5%	5%	4%	5%
Lane Group Flow (vph)	Adj. Flow (vph)	42	19	83	24	20	16	20	273	22	35	652	41
Enter Blocked Intersection   No   No   No   No   No   No   No	Shared Lane Traffic (%)												
Left   Left   Left   Right   Right   Left   Right	Lane Group Flow (vph)	0	144	0	0	60	0	0	315	0	0	728	0
Median Width(fft)         0         16         18         16         18         12         2         12         2         12         2	<b>Enter Blocked Intersection</b>	No											
Link Offset(fft)	Lane Alignment	Left	Left	Right									
Crosswalk Width(fft)	Median Width(ft)		0			0			0			0	
Two way Left Turn Lane   Headway Factor   1.01   1.05   1.01   0.96   1.01   0.96   1.00   1.04   1.00   0.96   1.00   1.00   0.96   1.00   1.00   1.00   1.00   0.96   1.00	Link Offset(ft)		0			0			0			0	
Headway Factor	Crosswalk Width(ft)		16			16			16			16	
Turning Speed (mph)         15         9 15         9 15         9 15           Number of Detectors         1 2         1 2         1 2         1 2         1 2           Detector Template         Left         Left         Left         Left         Left           Leading Detector (ft)         20 83         20 83         20 83         20 83         20 83           Trailing Detector (ft)         0 -5         0 -5         0 -5         0 -5         0 -5         0 -5           Detector 1 Position(ft)         0 -5         0 -5         0 -5         0 -5         0 -5         0 -5           Detector 1 Size(ft)         20 40         <	Two way Left Turn Lane												
Number of Detectors 1 2 1 2 1 2 1 2 1 2 1 2 1 2 Detector Template	Headway Factor	1.01	1.05	1.01	0.96	1.01	0.96	1.00	1.04	1.00	0.96	1.00	0.96
Detector Template	Turning Speed (mph)	15		9	15		9	15		9	15		9
Leading Detector (ft)         20         83         20         83         20         83           Trailing Detector (ft)         0         -5         0         -5         0         -5         0         -5           Detector 1 Position(ft)         0         -5         0         -5         0         -5         0         -5           Detector 1 Size(ft)         20         40         20         40         20         40         20         40           Detector 1 Type         Cl+Ex	Number of Detectors	1	2		1	2		1	2		1	2	
Trailing Detector (ft)         0         -5         0         -5         0         -5           Detector 1 Position(ft)         0         -5         0         -5         0         -5           Detector 1 Size(ft)         20         40         20         40         20         40           Detector 1 Type         Cl+Ex         Cl+Ex         Cl+Ex         Cl+Ex         Cl+Ex         Cl+Ex           Detector 1 Channel         Clector 1 Extend (s)         0.0	Detector Template	Left			Left			Left			Left		
Detector 1 Position(ft)         0         -5         0         -5         0         -5         0         -5           Detector 1 Size(ft)         20         40         20         40         20         40           Detector 1 Type         Cl+Ex         Cl-Ex         Cl-Ex         D.0         0.0									83		20		
Detector 1 Size(ft)         20         40         20         40         20         40           Detector 1 Type         Cl+Ex         Cl+Ex         Cl+Ex         Cl+Ex         Cl+Ex         Cl+Ex           Detector 1 Channel         Detector 1 Extend (s)         0.0 <td>Trailing Detector (ft)</td> <td>0</td> <td></td> <td></td> <td>0</td> <td>-5</td> <td></td> <td>0</td> <td></td> <td></td> <td>0</td> <td></td> <td></td>	Trailing Detector (ft)	0			0	-5		0			0		
Detector 1 Type         CI+Ex	Detector 1 Position(ft)												
Detector 1 Channel         Detector 1 Extend (s)         0.0	Detector 1 Size(ft)	20			20	40		20	40		20	40	
Detector 1 Extend (s)         0.0	Detector 1 Type	CI+Ex	CI+Ex										
Detector 1 Queue (s)         0.0         40													
Detector 1 Delay (s)         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         43         43         43         43         43         43         43         43         Detector 2 Size(ft)         40	. ,												
Detector 2 Position(ft)         43         43         43         43           Detector 2 Size(ft)         40         40         40         40           Detector 2 Type         CI+Ex         CI+Ex         CI+Ex         CI+Ex           Detector 2 Channel         0.0         0.0         0.0         0.0         0.0           Turn Type         Perm         NA         Perm         NA         Perm         NA         Perm         NA           Protected Phases         4         8         2         6         6           Permitted Phases         4         8         8         2         2         6         6           Switch Phase         4         4         8         8         2         2         6         6													
Detector 2 Size(ft)         40         40         40         40           Detector 2 Type         CI+Ex         CI+Ex         CI+Ex         CI+Ex           Detector 2 Channel         CI+Ex         CI+Ex         CI+Ex           Detector 2 Extend (s)         0.0         0.0         0.0         0.0           Turn Type         Perm         NA         Perm         NA         Perm         NA           Protected Phases         4         8         2         6           Permitted Phases         4         8         8         2         6           Detector Phase         4         4         8         8         2         2         6           Switch Phase         4         4         8         8         2         2         6         6		0.0			0.0			0.0			0.0		
Detector 2 Type         CI+Ex         CI+Ex         CI+Ex         CI+Ex           Detector 2 Channel         0.0         0.0         0.0         0.0           Detector 2 Extend (s)         0.0         0.0         0.0         0.0           Turn Type         Perm         NA         Perm         NA         Perm         NA           Protected Phases         4         8         2         6           Permitted Phases         4         4         8         8         2         2         6           Switch Phase         4         4         8         8         2         2         6         6	, ,												
Detector 2 Channel         Detector 2 Extend (s)         0.0         0.0         0.0         0.0         0.0           Turn Type         Perm         NA         Perm         NA         Perm         NA         Perm         NA           Protected Phases         4         8         2         6           Permitted Phases         4         8         8         2         6           Detector Phase         4         4         8         8         2         2         6         6           Switch Phase         4         4         8         8         2         2         6         6	, ,												
Detector 2 Extend (s)         0.0         0.0         0.0         0.0           Turn Type         Perm         NA         Perm         NA         Perm         NA           Protected Phases         4         8         2         6           Permitted Phases         4         8         2         6           Detector Phase         4         4         8         8         2         2         6         6           Switch Phase         4         4         8         8         2         2         6         6			CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Turn Type         Perm         NA         Perm         NA         Perm         NA           Protected Phases         4         8         2         6           Permitted Phases         4         8         2         6           Detector Phase         4         4         8         8         2         2         6         6           Switch Phase         4         4         8         8         2         2         6         6													
Protected Phases         4         8         2         6           Permitted Phases         4         8         2         6           Detector Phase         4         4         8         8         2         2         6         6           Switch Phase         4         4         8         8         2         2         6         6													
Permitted Phases       4       8       2       6         Detector Phase       4       4       8       8       2       2       6       6         Switch Phase       8       8       2       2       6       6       6		Perm			Perm			Perm			Perm		
Detector Phase 4 4 8 8 2 2 6 6 6 Switch Phase			4			8			2			6	
Switch Phase													
		4	4		8	8		2	2		6	6	
Minimum Initial (s) 50 50 50 50 50 50 50													
	Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s) 22.5 22.5 22.5 22.5 22.5 22.5 22.5	Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	

Job# 23002830A - R.H.

	٠	-	$\rightarrow$	•	+	•	1	Ť	~	-	ļ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	23.0	23.0		23.0	23.0		67.0	67.0		67.0	67.0	
Total Split (%)	25.6%	25.6%		25.6%	25.6%		74.4%	74.4%		74.4%	74.4%	
Maximum Green (s)	18.5	18.5		18.5	18.5		62.5	62.5		62.5	62.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
v/c Ratio		0.44			0.20			0.28			0.60	
Control Delay		15.2			15.3			5.0			8.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.2			15.3			5.0			8.4	
Queue Length 50th (ft)		14			8			28			91	
Queue Length 95th (ft)		63			38			71			213	
Internal Link Dist (ft)		1138			654			1351			961	
Turn Bay Length (ft)												
Base Capacity (vph)		667			682			1662			1770	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			0.09			0.19			0.41	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 43	.5											
Natural Cycle: 60												
Control Type: Actuated-Un	coordinate	ed										
Splits and Phases: 6: N	YS Route	208 & Ro	und Hill	Road								
-d- <b>4</b>		200 0.110						3	1			
Ø2 67 s									23 s	•		
A									+			
▼ Ø6									▼ Ø8	5	-	

	٠	-	•	•	+	•	1	<b>†</b>	~	/	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	36	16	71	21	17	14	17	235	19	30	561	35
Future Volume (veh/h)	36	16	71	21	17	14	17	235	19	30	561	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1820	1820	1820	2061	2061	2061	1826	1841	1826	2100	2115	2100
Adj Flow Rate, veh/h	42	19	83	24	20	16	20	273	22	35	652	41
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	4	5	5	4	5
Cap, veh/h	230	40	130	272	118	73	164	823	63	165	980	60
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	377	274	885	563	808	499	39	1597	123	44	1902	116
Grp Volume(v), veh/h	144	0	0	60	0	0	315	0	0	728	0	0
Grp Sat Flow(s), veh/h/ln	1536	0	0	1870	0	0	1760	0	0	2062	0	0
Q Serve(g_s), s	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	0.0	0.7	0.0	0.0	2.7	0.0	0.0	6.9	0.0	0.0
Prop In Lane	0.29		0.58	0.40		0.27	0.06		0.07	0.05		0.06
Lane Grp Cap(c), veh/h	400	0	0	463	0	0	1051	0	0	1204	0	0
V/C Ratio(X)	0.36	0.00	0.00	0.13	0.00	0.00	0.30	0.00	0.00	0.60	0.00	0.00
Avail Cap(c_a), veh/h	1226	0	0	1386	0	0	4102	0	0	4920	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	10.0	0.0	0.0	3.8	0.0	0.0	4.8	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/ve				10.1	0.0		0.0	0.0	0.0			0.0
LnGrp Delay(d),s/veh	11.2	0.0	0.0	10.1	0.0	0.0	3.9	0.0	0.0	5.3	0.0	0.0
LnGrp LOS	В	A	A	В	A	A	A	A	A	<u>A</u>	A	<u>A</u>
Approach Vol, veh/h		144			60			315			728	
Approach Delay, s/veh		11.2			10.1			3.9			5.3	
Approach LOS		В			В			Α			Α	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		18.2		8.4		18.2		8.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		62.5		18.5		62.5		18.5				
Max Q Clear Time (g_c+I1),	S	4.7		4.3		8.9		2.7				
Green Ext Time (p_c), s		1.7		0.5		4.8		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			5.9									
HCM 6th LOS			Α									

	ኘ	t	ļ	¥J	•	>
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	*	<b>↑</b>	1,		*	7
Traffic Volume (vph)	245	1250	779	10	6	182
Future Volume (vph)	245	1250	779	10	6	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	16	16
Grade (%)	1.5	1%	1%		2%	10
Storage Length (ft)	100	170	170	0	0	100
Storage Lanes	100			0	1	1
Taper Length (ft)	25			U	25	I
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.998	1.00	1.00	0.850
	0.050		0.998		0.050	บ.ชวบ
Flt Protected	0.950	1/07	1701	^	0.950	1/04
Satd. Flow (prot)	1627	1697	1701	0	1986	1604
Flt Permitted	0.163	A	470:		0.950	
Satd. Flow (perm)	279	1697	1701	0	1986	1604
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			1			192
Link Speed (mph)		45	45		30	
Link Distance (ft)		1804	1967		2341	
Travel Time (s)		27.3	29.8		53.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	4%	3%	44%	2%	13%
Adj. Flow (vph)	258	1316	820	11	6	192
Shared Lane Traffic (%)						
Lane Group Flow (vph)	258	1316	831	0	6	192
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)	Loit	10	10	ragin	16	ragin
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
<b>、</b> ,		10	10		10	
Two way Left Turn Lane	1 10	1 10	1 10	1 10	0.07	0.07
Headway Factor	1.10	1.10	1.10	1.10	0.86	0.86
Turning Speed (mph)	15			9	15	9
Number of Detectors	2	2	2		2	1
Detector Template						Right
Leading Detector (ft)	83	83	83		83	20
Trailing Detector (ft)	-5	-5	-5		-5	0
Detector 1 Position(ft)	-5	-5	-5		-5	0
Detector 1 Size(ft)	40	40	40		40	20
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	43	43	43		43	0.0
Detector 2 Size(ft)	40	40	40		40	
	CI+Ex	CI+Ex	CI+Ex		CI+Ex	
Detector 2 Type	CI+EX	CI+EX	CI+EX		CI+EX	
Detector 2 Channel	0.0	0.0	0.0		0.0	
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	D.
Turn Type	pm+pt	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Detector Phase	5	2	6		4	4

	ሽ	Ť	ţ	*J	•	+
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Switch Phase						
Minimum Initial (s)	3.0	5.0	5.0		5.0	5.0
Minimum Split (s)	8.0	23.0	23.0		15.0	15.0
Total Split (s)	15.0	65.0	50.0		25.0	25.0
Total Split (%)	16.7%	72.2%	55.6%		27.8%	27.8%
Maximum Green (s)	10.0	60.0	45.0		20.0	20.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	2.0	2.0	2.0		2.0	2.0
Recall Mode	None	Min	Min		None	None
v/c Ratio	0.65	0.99	0.83		0.04	0.62
Control Delay	14.9	33.2	22.7		31.8	14.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	14.9	33.2	22.7		31.8	14.7
Queue Length 50th (ft)	19	369	271		3	0
Queue Length 95th (ft)	#121	#974	#599		14	57
Internal Link Dist (ft)		1724	1887		2261	
Turn Bay Length (ft)	100					100
Base Capacity (vph)	394	1331	1001		519	561
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.65	0.99	0.83		0.01	0.34

### **Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 76.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: NYS Route 208 & Peddler Hill Road



	ነ	Ť	Ţ	W	•	>
Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	*	<b>†</b>	1		7	7
Traffic Volume (veh/h)	245	1250	779	10	6	182
Future Volume (veh/h)	245	1250	779	10	6	182
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	· ·	· ·	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	1.00	No	No	1.00	No	1.00
Adj Sat Flow, veh/h/ln	1850	1835	1850	1242	1921	1751
Adj Flow Rate, veh/h	258	1316	820	11	6	192
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
						13
Percent Heavy Veh, %	3	4	3	44	2 277	
Cap, veh/h	390	1333	1066	14		225
Arrive On Green	0.08	0.73	0.59	0.59	0.15	0.15
Sat Flow, veh/h	1762	1835	1821	24	1829	1484
Grp Volume(v), veh/h	258	1316	0	831	6	192
Grp Sat Flow(s), veh/h/ln	1762	1835	0	1845	1829	1484
Q Serve(g_s), s	4.4	56.9	0.0	27.9	0.2	10.3
Cycle Q Clear(g_c), s	4.4	56.9	0.0	27.9	0.2	10.3
Prop In Lane	1.00			0.01	1.00	1.00
Lane Grp Cap(c), veh/h	390	1333	0	1080	277	225
V/C Ratio(X)	0.66	0.99	0.00	0.77	0.02	0.85
Avail Cap(c_a), veh/h	463	1342	0	1080	446	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	10.8	0.0	12.8	29.6	33.9
Incr Delay (d2), s/veh	1.7	21.3	0.0	3.1	0.0	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	20.4	0.0	9.8	0.1	0.4
Unsig. Movement Delay, s/ve		20.1	0.0	7.0	0.1	0.1
LnGrp Delay(d),s/veh	15.3	32.1	0.0	15.9	29.7	39.8
LnGrp LOS	В	C	Α	В	C	D
	<u> </u>			ט		<u> </u>
Approach Vol, veh/h		1574	831		198	
Approach Delay, s/veh		29.4	15.9		39.5	
Approach LOS		С	В		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		64.6		17.4	11.6	53.0
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s	;	60.0		20.0	10.0	45.0
Max Q Clear Time (q_c+l1), s		58.9		12.3	6.4	29.9
Green Ext Time (p_c), s	<b>,</b>	0.8		0.2	0.3	2.7
Intersection Summary						
			2F 0			
HCM 6th Ctrl Delay			25.8			
HCM 6th LOS			С			
Notes						

User approved volume balancing among the lanes for turning movement.

	۶	-	*	•	+	•	1	1	~	1	ţ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (vph)	45	24	29	5	15	11	84	641	30	14	323	55
Future Volume (vph)	45	24	29	5	15	11	84	641	30	14	323	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Grade (%)		1%			-6%			0%			-7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.951			0.995			0.981	
Flt Protected		0.978			0.992			0.994			0.998	
Satd. Flow (prot)	0	1682	0	0	1750	0	0	1781	0	0	1825	0
Flt Permitted		0.837			0.943			0.914			0.972	
Satd. Flow (perm)	0	1440	0	0	1663	0	0	1638	0	0	1777	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			12			5			21	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1218			734			1431			1041	
Travel Time (s)		27.7			16.7			21.7			15.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	26	32	5	16	12	91	697	33	15	351	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	107	0	0	33	0	0	821	0	0	426	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.96	1.01	0.96	1.00	1.04	1.00	0.96	1.00	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	83		20	83		20	83		20	83	
Trailing Detector (ft)	0	-5		0	-5		0	-5		0	-5	
Detector 1 Position(ft)	0	-5		0	-5		0	-5		0	-5	
Detector 1 Size(ft)	20	40		20	40		20	40		20	40	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		43			43			43			43	
Detector 2 Size(ft)		40			40			40			40	
Detector 2 Type Detector 2 Channel		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
		0.0			0.0			0.0			0.0	
Detector 2 Extend (s)	Dorm	NA		Perm	NA		Dorm	NA		Dorm	NA	
Turn Type Protected Phases	Perm	NA 4		Pellii	NA 8		Perm	NA 2		Perm	NA 6	
Permitted Phases	4	4		8	0		2	Z		6	Ü	
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase	4	4		O	O					U	Ü	
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	23.0	23.0		23.0	23.0		67.0	67.0		67.0	67.0	
. otal opiit (3)	20.0	20.0		20.0	20.0		07.0	37.0		07.0	37.0	

Job# 23002830A - R.H.

	•	-	•	1		•	1	1	1	1	Ţ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	25.6%	25.6%		25.6%	25.6%		74.4%	74.4%		74.4%	74.4%	
Maximum Green (s)	18.5	18.5		18.5	18.5		62.5	62.5		62.5	62.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
v/c Ratio		0.40			0.11			0.67			0.32	
Control Delay		25.3			19.0			9.5			4.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		25.3			19.0			9.5			4.5	
Queue Length 50th (ft)		25			6			136			44	
Queue Length 95th (ft)		85			33			342			106	
Internal Link Dist (ft)		1138			654			1351			961	
Turn Bay Length (ft)												
Base Capacity (vph)		540			616			1561			1694	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.20			0.05			0.53			0.25	
Intersection Summary												

Intersection Summary
Area Type:

Cycle Length: 90

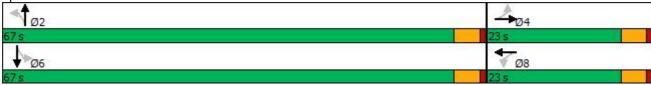
Actuated Cycle Length: 55.9

Natural Cycle: 65

Control Type: Actuated-Uncoordinated



Other



	۶		•	•	+	•	1	Ť	~	/	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	45	24	29	5	15	11	84	641	30	14	323	55
Future Volume (veh/h)	45	24	29	5	15	11	84	641	30	14	323	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	2106	2106	2106	1870	1870	1870	2145	2145	2145
Adj Flow Rate, veh/h	49	26	32	5	16	12	91	697	33	15	351	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	46	53	156	118	80	199	934	42	133	1044	173
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	690	411	470	202	1045	712	118	1561	70	22	1746	290
Grp Volume(v), veh/h	107	0	0	33	0	0	821	0	0	426	0	0
Grp Sat Flow(s), veh/h/ln	1570	0	0	1959	0	0	1749	0	0	2058	0	0
Q Serve(g_s), s	1.5	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0	0.5	0.0	0.0	10.5	0.0	0.0	3.2	0.0	0.0
Prop In Lane	0.46		0.30	0.15		0.36	0.11		0.04	0.04		0.14
Lane Grp Cap(c), veh/h	346	0	0	354	0	0	1175	0	0	1351	0	0
V/C Ratio(X)	0.31	0.00	0.00	0.09	0.00	0.00	0.70	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	1084	0	0	1255	0	0	3551	0	0	4147	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	12.5	0.0	0.0	4.5	0.0	0.0	3.2	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.8	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/ve	h											
LnGrp Delay(d),s/veh	13.6	0.0	0.0	12.6	0.0	0.0	5.3	0.0	0.0	3.3	0.0	0.0
LnGrp LOS	В	Α	Α	В	Α	Α	Α	Α	Α	Α	Α	A
Approach Vol, veh/h		107			33			821			426	
Approach Delay, s/veh		13.6			12.6			5.3			3.3	
Approach LOS		В			В			А			Α	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.1		8.0		23.1		8.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		62.5		18.5		62.5		18.5				
Max Q Clear Time (g_c+l1), s		12.5		4.0		5.2		2.5				
Green Ext Time (p_c), s		6.1		0.4		2.4		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			5.5									
HCM 6th LOS			Α									



# Traffic Impact Study **Appendix E | Accident Data**



#### TABLE A

## ACCIDENT DATA SUMMARY BLOOMING GROVE, ORANGE COUNTY, NY STUDY PERIOD: NOVEMBER 9, 2016 THROUGH JULY 25, 2022

On Street	Location	Mile Marker	Date	Time	Traffic Control	Accident Class	# of Vehicles Injuries	Light Condition	Road Condition	Weather	Manner of Collision	Apparent Contributing Factors
												V1:(DRIVER INATTENTION,PASSING OR LANE USAGE
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	07/25/22	8:39 PM	NO PASSING ZONE	PDO	2-0	DARK-ROAD UNLIGHTED	DRY	CLEAR	SIDESWIPE	IMPROPERLY) / V2:(NOT APPLICABLE,NOT APPLICABLE) V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) /
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	06/13/22	3:29 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V2:(NOT APPLICABLE,NOT APPLICABLE) V1:(FAILURE TO KEEP RIGHT,PASSING OR LANE USAGE
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	04/08/22	3:48 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	IMPROPERLY) / V2:(NOT APPLICABLE,NOT APPLICABLE) V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) /
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	03/22/22	2:31 PM	NO PASSING ZONE	1	2-1	DAYLIGHT	DRY	CLEAR	REAR END	V2:(NOT APPLICABLE,NOT APPLICABLE) V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) /
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	03/03/22	8:16 AM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V2:(NOT APPLICABLE,NOT APPLICABLE) V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) /
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	11/13/21	4:22 PM	NO PASSING ZONE	1	2-1	DARK-ROAD UNLIGHTED	WET	CLOUDY	REAR END	V2:(NOT APPLICABLE,NOT APPLICABLE) V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) /
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	10/26/21	3:53 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	WET	RAIN	REAR END	V2:(NOT APPLICABLE,NOT APPLICABLE) V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) /
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	03/05/21	12:13 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V2:(NOT APPLICABLE,NOT APPLICABLE) V1:(DRIVER INATTENTION,NOT APPLICABLE) / V2:(NOT
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	11/04/20	9-39 AM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	APPLICABLE,NOT APPLICABLE)
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	02/13/20		NO PASSING ZONE	PDO	1-0	DAYLIGHT	WET	CLOUDY	OTHER	V1:(ANIMAL'S ACTION,NOT APPLICABLE)
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	01/10/20		NO PASSING ZONE	PDO	1-0	DARK-ROAD LIGHTED	DRY	CLOUDY	OTHER	V1:(ANIMAL'S ACTION,NOT APPLICABLE)
ROUTE 208	AT THE INTERSECTION OF PEDDEER THEE RD	208 83011023	01/10/20	0.13 FW	NO FASSING ZONE	FBO	1-0	DAKKKOAD EIGITIED	DKI	CLOUDI	OTTLER	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE) / V3:(NOT
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	07/19/19	7:43 AM	NO PASSING ZONE	1	3-1	DAYLIGHT	DRY	CLOUDY	OTHER	APPLICABLE,NOT APPLICABLE)
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	11/24/18	6:08 PM		PDO	1-0	DARK-ROAD UNLIGHTED	DRY	CLOUDY	OTHER	V1:(ANIMAL'S ACTION,NOT APPLICABLE)
ROUTE 208	AT THE INTERSECTION OF FEDDLER THEE RD	208 83011023	11/24/10	0.00 F W	NO FASSING ZONE	FDO	1-0	DARK-ROAD GIVEIGITIED	DKI	CLOODI	OTTLK	V1:(FOLLOWING TOO CLOSELY,UNSAFE SPEED) / V2:(NOT
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	10/26/18	2-E0 DM	NO PASSING ZONE	1	2-1	DAYLIGHT	DRY	CLOUDY	REAR END	APPLICABLE, NOT APPLICABLE)
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	206 63011023	10/20/16	2.50 PIVI	INO PASSING ZOINE	ļ	2-1	DATEIGHT	DKI	CLOUDT	REAR EIND	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) /
DOUTE 200	AT THE INTERCECTION OF REDDIED HILL DO	200 02044022	05 (20 (4.0	0.20 014	NO DACCING TONE	DDO	2.0	DUCK	DDV	CLEAD	DEAD FAID	V2:(NOT APPLICABLE,NOT APPLICABLE)
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	05/29/18	9:30 PM	NO PASSING ZONE	PDO	2-0	DUSK	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) /
DOUTE 200	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	05/24/18	F-20 DM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V2:(NOT APPLICABLE,NOT APPLICABLE)
ROUTE 208												
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	12/26/17	2:32 AM	NO PASSING ZONE	I	1-3	DARK-ROAD UNLIGHTED	DRY	CLEAR	OTHER	V1:(UNSAFE SPEED,UNKNOWN)
DOLUTE OOD	AT THE INTERCEPTION OF DEDDING TO LINE OR		44.05.43	0.45.014				DAMAGE T	201	el el lev	2512512	V1:(UNSAFE SPEED,NOT APPLICABLE) / V2:(NOT
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	11/25/17	3:15 PM	NO PASSING ZONE	ı	2-1	DAYLIGHT	DRY	CLOUDY	REAR END	APPLICABLE, NOT APPLICABLE)
												V1:(PASSING OR LANE USAGE IMPROPERLY,NOT
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	11/11/17		NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	APPLICABLE) / V2:(NOT APPLICABLE, NOT APPLICABLE)
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	10/26/17	3:00 AM	NO PASSING ZONE	PDO	1-0	DARK-ROAD LIGHTED	DRY	CLOUDY	OTHER	V1:(ANIMAL'S ACTION,NOT APPLICABLE)
												V1:(DRIVER INATTENTION,NOT APPLICABLE) / V2:(NOT
PEDDLER HILL RD	AT THE INTERSECTION OF ROUTE 208	208 83011023	07/09/17	10:24 AM	OLICE/FIRE EMERGEN	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	APPLICABLE,NOT APPLICABLE)
												V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) /
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	06/25/17	9:40 AM	NO PASSING ZONE	1	2-1	DAYLIGHT	DRY	CLEAR	REAR END	V2:(NOT APPLICABLE,NOT APPLICABLE)
												V4 (051 6710) TO 071 50 UNIVERSALE V51 61 DAY 51 451 T
												V1:(REACTION TO OTHER UNINVOLVED VEHICL,PAVEMENT
ROUTE 208	AT THE INTERSECTION OF PEDDLER HILL RD	208 83011023	11/09/16	7:40 AM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	WET	RAIN	SIDESWIPE	SLIPPERY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
												V1:(FAILURE TO KEEP RIGHT,NOT APPLICABLE) / V2:(NOT
PEDDLER HILL RD	AT THE INTERSECTION OF ROUTE 208	208 83011024	10/08/21	5:30 PM	NONE	Į.	2-2	DAYLIGHT	DRY	CLEAR	HEAD ON	APPLICABLE, NOT APPLICABLE)
												V1:(PAVEMENT SLIPPERY,NOT APPLICABLE) / V2:(NOT
PEDDLER HILL RD	161' NORTH OF PALAMAR DR		01/27/22	7:45 AM	NONE	I	2-1	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	APPLICABLE, NOT APPLICABLE)
PEDDLER HILL RD	AT THE INTERSECTION OF TANAGER RD		07/12/21	6:35 PM	NONE	I	1-4	DAYLIGHT	DRY	CLEAR	OTHER	V1:(UNSAFE SPEED,NOT APPLICABLE)
PEDDLER HILL RD	32' NORTH OF PALAMAR DR		04/09/21	11:40 PM		PDO	1-0	DARK-ROAD UNLIGHTED	DRY	CLEAR	OTHER	V1:(ANIMAL'S ACTION,NOT APPLICABLE)
PEDDLER HILL RD	76' SOUTHEAST OF PROSPECT RD		12/09/20	4:23 PM	NONE	PDO	1-0	DAYLIGHT	WET	RAIN	OTHER	V1:(ANIMAL'S ACTION,NOT APPLICABLE)
												V1:(FAILURE TO KEEP RIGHT,NOT APPLICABLE) /
PEDDLER HILL RD	#N/A		12/07/20	10:27 AM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	SIDESWIPE	V2:(FAILURE TO KEEP RIGHT,NOT APPLICABLE) V1:(FAILURE TO KEEP RIGHT,NOT APPLICABLE) / V2:(NOT
PEDDLER HILL RD	161' SOUTHEAST OF PROSPECT RD		06/16/20	2:15 PM	NONE	1	2-1	DAYLIGHT	DRY	CLEAR	SIDESWIPE	APPLICABLE,NOT APPLICABLE)
PEDDLER HILL RD	61' NORTHWEST OF TANAGER RD		03/11/20	6:17 PM	NONE	PDO	1-0	DAYLIGHT	DRY	CLOUDY	OTHER	V1:(UNSAFE SPEED,ANIMAL'S ACTION)
PEDDLER HILL RD	152' SOUTHEAST OF PROSPECT RD		12/10/19	11:19 AM	NONE	PDO	1-0	DAYLIGHT	WET	CLEAR	OTHER	V1:(UNSAFE SPEED,NOT APPLICABLE)
PEDDLER HILL RD	76' SOUTHEAST OF PROSPECT RD		02/08/17	10:02 AM	NONE	1	1-1	DAYLIGHT	WET	CLOUDY	OTHER	V1:(UNSAFE SPEED,NOT ENTERED)
PROSPECT RD	701' SOUTHEAST OF LAKE HILDEGARDE DR		03/05/21	11:51 PM	NONE	PDO	1-0	DARK-ROAD UNLIGHTED	DRY	CLEAR	OTHER	V1:(ANIMAL'S ACTION,NOT APPLICABLE)
PROSPECT RD	#N/A		10/06/19	7:03 PM	NONE	PDO	1-0	DARK-ROAD UNLIGHTED	DRY	CLOUDY	OTHER	V1:(ANIMAL'S ACTION,NOT APPLICABLE)
•												



On Street	Location	Mile Marker	Date	Time	Traffic Control	Accident Class	# of Vehicles Injuries	Light Condition	Road Condition	Weather	Manner of Collision	Apparent Contributing Factors
PROSPECT RD	AT THE INTERSECTION OF PEDDLER HILL RD		10/02/18	12:00 AM	UNKNOWN	PDO	1-0	UNKNOWN	WET	RAIN	OTHER	V1:(NOT ENTERED,NOT ENTERED)
PROSPECT RD	AT THE INTERSECTION OF EMILY LN		06/09/17	6:06 PM	NONE	PDO	1-0	DAYLIGHT	DRY	CLEAR	OTHER	V1:(DRIVER INATTENTION,NOT APPLICABLE)
PROSPECT RD	784' SOUTHEAST OF LAKE HILDEGARDE DR		11/11/16	9:05 PM	NONE	PDO	1-0	DARK-ROAD UNLIGHTED	DRY	CLEAR	OTHER	V1:(ANIMAL'S ACTION,NOT APPLICABLE)



Colliers Engineering & Design is a trusted provider of multi-discipline engineering, design and consulting services providing customized solutions for public and private clients through a network of offices nationwide.

For a full listing of our office locations, please visit colliersengineering.com

1 877 627 3772



Civil/Site • Traffic/Transportation • Governmental • Survey/Geospatial Infrastructure • Geotechnical/Environmental • Telecommunications • Utilities/Energy