

Traffic Impact Study

Crotonville Conference Center 1 Old Albany Post Road Crotonville, Town of Ossining, New York

PREPARED FOR:

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1.0 EXECUTIVE SUMMARY

This Traffic Impact Study has been prepared by Kimley-Horn Engineering and Landscape Architecture of New York, P.C. (Kimley-Horn) to document the potential traffic impacts associated with the proposed re-zoning of the existing GE Training Facility (the “Project”), which is located at 1 Old Albany Post Road in Crotonville, Town of Ossining, New York. **As indicated herein, the proposed action will not result in any significant adverse impact on area traffic operating conditions.**

1.1 Project Description

The subject property contains an existing +/- 319,000 square foot executive training center located in 12 buildings with existing infrastructure on a 62-acre parcel located at 1 Old Albany Post Road. The facility is in a well-established campus setting and includes 248 guest rooms, recreation areas, 3 dining areas, a helipad, and landscaped grounds. The facility currently provides 217 parking spaces. Access to the site is provided via a driveway (Shady Lane Farm Road) to Old Albany Post Road, which is planned to remain under the proposed re-zoning.

It is proposed to re-zone the property to permit the use of the facility by the public as a hotel/conference center. The rezoning would also permit senior residential living on the property (with a special permit). The owner has indicated that, while there are currently no proposed plans, it is possible that some of the existing building area could, at some point in the future, be converted to overnight accommodation facilities but, at no point would the number of overnight rooms/residences exceed 300. This traffic impact study evaluates the prospective use of the current facility to a 300-room hotel and conference center, as well as a conference center with 300 senior living residential units or some combination thereof, where the combined hotel rooms and senior living units does not exceed 300 (the “Project” or “Proposed Action”).

1.2 Study Methodology

This study evaluates existing traffic conditions, as well as future conditions without the Project (“No-Build”) and with the Project (“Build”). The No-Build condition is the benchmark against which the potential impacts of the proposed Project are compared.

One (1) signalized intersection and two (2) unsignalized intersections have been selected to be studied as indicated below:

- Albany Post Road (US 9) & Old Albany Post Road/Mystic Drive;
- Old Albany Post Road & Shady Lane Farm Road; and
- Shady Lane Farm Road & the Briarcliff Peekskill Parkway (NY 9A) Westbound Off-Ramp

Vehicle turning movement counts were conducted on a typical weekday in May of 2024, when schools were in session, during the AM and PM peak periods when the combined roadway and Project traffic is expected to be highest. Additional vehicle turning movement counts were conducted on a typical Saturday in June of 2024 during the Saturday midday peak period when the combined roadway and Project traffic is expected to be highest.

The Existing traffic volumes were grown to the year 2025 to represent future conditions without the Project ("No-Build").

The number of trips expected to be generated by the Project during the peak hours were forecast based on data contained in the Institute of Transportation Engineers' (ITE) publication, *Trip Generation Manual*, 11th Edition and anticipated Project operations. The Project-generated trips were distributed to the study intersections and added to the No-Build volumes to represent future conditions with the Project ("Build").

Synchro intersection capacity analyses were conducted at the study intersections for the Existing, No-Build and the Build traffic volume conditions and compared to intersection capacities to identify Project impacts.

Qualitative analyses were performed as required.

1.3 Findings

As detailed hereafter, each of the study intersections currently and is projected to continue operate at acceptable Level of Service ("LOS") "C" conditions or better in the future, with or without the Project. Specifically, under the Existing conditions, the intersection of Albany Post Road (US Route 9) & Old Albany Post Road/Mystic Drive operates at an overall Level of Service ("LOS") "B" during the weekday AM and weekday PM peak hours and an overall LOS "A" during the Saturday midday peak hour. The westbound Shady Lane Farm Road approach to Old Albany Post Road operates at a LOS "B" during the weekday AM peak hour and a LOS "A" during the weekday PM and Saturday midday peak hours. The southbound Old Albany Post Road approach to Shady Lane Farm Road operates at a LOS "A" during the weekday AM, weekday PM and Saturday peak hours. Finally, the westbound Briarcliff Peekskill Parkway (NY 9A) Westbound Off-Ramp approach to Shady Lane Farm Road operates at a LOS "A" during the weekday AM, weekday PM and Saturday peak hours.

In the future under No-Build conditions (without the proposed Project, but with forecast increases in existing traffic volumes), the intersection of Albany Post Road (US Route 9) & Old Albany Post Road/Mystic Drive will operate at an overall Level of Service ("LOS") "C" during the weekday AM peak hour, an overall LOS "B" during the weekday PM peak hour, and an overall LOS "A" during the Saturday midday peak hour. The westbound Shady Lane Farm Road approach to Old Albany Post Road will operate at a LOS "B" during the weekday AM peak hour and a LOS "A" during the weekday PM and Saturday midday peak hours. The southbound Old Albany Post Road approach to Shady Lane Farm Road will

operate at a LOS "A" during the weekday AM, weekday PM and Saturday peak hours. Finally, the westbound Briarcliff Peekskill Parkway (NY 9A) Westbound Off-Ramp approach to Shady Lane Farm Road will operate at a LOS "A" during the weekday AM, weekday PM and Saturday peak hours.

Under future Build conditions (with forecast increases in existing traffic volumes and Project traffic added), the intersection of Albany Post Road (US Route 9) & Old Albany Post Road/Mystic Drive is projected to operate at an overall Level of Service ("LOS") "C" during the weekday AM peak hour and an overall LOS "B" during the weekday PM and Saturday midday peak hours. The westbound Shady Lane Farm Road approach to Old Albany Post Road is projected to operate at a LOS "B" during the weekday AM, weekday PM and Saturday midday peak hours. The southbound Old Albany Post Road approach to Shady Lane Farm Road is projected to operate at a LOS "A" during the weekday AM, weekday PM and Saturday peak hours. Finally, the westbound Briarcliff Peekskill Parkway (NY 9A) Westbound Off-Ramp approach to Shady Lane Farm Road is projected to operate at a LOS "B" during the weekday AM, weekday PM and Saturday peak hours.

1.4 Conclusions

Based on the analysis provided herein, it is concluded that traffic generated by Project **will not result in any significant adverse impact on traffic conditions**. No off-site mitigation measures are recommended.

2.0 INTRODUCTION

This Traffic Impact Study has been prepared by Kimley-Horn Engineering and Landscape Architecture of New York, P.C. (Kimley-Horn) to document the potential traffic impacts associated with the proposed re-zoning of the existing GE Training Facility (the “Project”), which is located at 1 Old Albany Post Road in Crotonville, Town of Ossining, New York. The project location is shown in **Figure 1**.

2.1 *Project Description*

The subject property contains an existing +/- 319,000 square foot executive training center located in 12 buildings with existing infrastructure on a 62-acre parcel located at 1 Old Albany Post Road. The facility is in a well-established campus setting and includes 248 guest rooms, recreation areas, 3 dining areas, a helipad, and landscaped grounds. The facility currently provides 217 parking spaces. Access to the site is provided via a driveway (Shady Lane Farm Road) to Old Albany Post Road, which is planned to remain under the proposed re-zoning.

It is proposed to re-zone the property to permit the use of the facility by the public as a hotel/conference center. The rezoning would also permit senior residential living on the property (with a special permit). The owner has indicated that, while there are currently no proposed plans, it is possible that some of the existing building area could, at some point in the future, be converted to overnight accommodation facilities but, at no point would the number of overnight rooms/residences exceed 300. This traffic impact study evaluates the prospective conversion of the current facility to a 300-room hotel and conference center, as well as a conference center with 300 senior living residential units or some combination thereof, where the combined hotel rooms and senior living units does not exceed 300.

This study evaluates existing traffic conditions, as well as future conditions without the Project (“No-Build”) and with the Project (“Build”). The No-Build condition is the benchmark against which the potential impacts of the proposed Project are compared.



Figure 1
Project Location
1 Old Albany Post Road
Crotonville, Westchester Co., NY

2.2 Study Locations

One (1) signalized intersection and two (2) unsignalized intersections have been selected to be studied and the type of analysis to be conducted are listed below.

Quantitative Analysis

1. Synchro Intersection Capacity Analysis:

- Albany Post Road (US 9) & Old Albany Post Road/Mystic Drive;
- Old Albany Post Road & Shady Lane Farm Road; and
- Shady Lane Farm Road & the Briarcliff Peekskill Parkway (NY 9A) Northbound Off-Ramp

Qualitative Analysis

1. Discussion of existing traffic conditions

- a. Albany Post Road (US 9) & Old Albany Post Road/Mystic Drive;
- b. Old Albany Post Road & Shady Lane Farm Road; and
- c. Shady Lane Farm Road & the Briarcliff Peekskill Parkway (NY 9A) Northbound Off-Ramp

3.0 EXISTING CONDITIONS

3.1 Roadway Network

Evaluation of the traffic impacts associated with the proposed Project requires a thorough understanding of the existing roadway system in the vicinity of the site. The existing conditions observed in the study area include an inventory of the roadways, speed limits, intersection geometry, traffic control devices, pavement condition and markings. This information is provided below.

Albany Post Road (US Route 9) is a north-south oriented State highway that is classified by the New York State Department of Transportation (NYSDOT) as an urban “Principal Arterial Other.” Albany Post Road stretches from Champlain, New York south to Laurel, Delaware. Within the environs of Old Albany Post Road, Albany Post Road provides four (4) 12-foot travel lanes separated by a 4-foot wide median (which is painted to the north of Old Albany Post Road and curbed to the south of Old Albany Post Road). Variable-width, paved shoulders are provided on both the eastern and western sides of Albany Post Road. Within the study area, the pavement is in fair condition. A bicycle path is provided on the western side of the roadway, north of Old Albany Post Road, and a sidewalk is provided on western side of the roadway, south of Old Albany Post Road. Parking is not permitted on either side of the roadway. Albany Post Road is under the jurisdiction of NYSDOT. The posted speed limit is 30 miles per hour (mph) within the study area. NYSDOT reports a 2023 estimated Average Annual Daily Traffic (AADT) volume of 15,611 on Albany Post Road.

Old Albany Post Road is a Village/Town roadway that is classified by NYSDOT as an urban “Local Roadway.” Old Albany Post Road is an east-west oriented roadway at its intersection with Albany Post Road (US Route 9) but bends to become a north-south oriented roadway at its intersection with Shady Lane Farm Road. Old Albany Post Road travels from Albany Post Road to its terminus at its intersection with Quaker Bridge Road/Old High Ridge Road, approximately 0.8 miles north of Albany Post Road. Near Albany Post Road, Old Albany Post Road provides one 18-foot travel lane and no paved shoulder on the eastbound side of the road and one 18-foot travel lane and no paved shoulder on the westbound side of the road. Near Shady Lane Farm Road, Old Albany Post Road provides one 11-foot travel lane on the northbound side of the road and one 11-foot travel lane on the southbound side of the road. Variable-width, paved shoulders are provided south of Shady Lane Farm Road, but no shoulders are provided north of Shady Lane Farm Road, where there is a 5-ton weight limit posted. Within the study area, the pavement is in fair condition. Sidewalk is not provided on either side of the roadway. Parking is expressly prohibited on Old Albany Post Road in the study area. At its intersection with Albany Post Road, Old Albany Post Road is under the jurisdiction of the Village of Ossining. At its intersection with Shady Lane Farm Road, Old Albany Post Road is under the jurisdiction of the Town of Ossining. The posted speed limit is 30 miles per hour (mph) within the study area. NSYDOT does not report AADT on Old Albany Post Road.

Shady Lane Farm Road is a Town roadway that is classified by NYSDOT as an urban “Local Roadway.” Shady Lane Farm Road is an east-west oriented roadway at its intersection with Old Albany Post Road but bends to become a north-south oriented highway at its intersection with the Briarcliff Peekskill Parkway (NY Route 9A) Northbound Off-Ramp. Shady Lane Farm Road travels from Old Albany Post Road approximately 175 feet north to become the entrance to the Project. Near Old Albany Post Road, Shady Lane Farm Road provides one 10-foot travel lane and no paved shoulder on the eastbound side of the road and one 10-foot travel lane and no paved shoulder on the westbound side of the road. Near the Briarcliff Peekskill Parkway Northbound Off-Ramp, Shady Lane Farm Road provides one 10-foot travel lane and no paved shoulder on the northbound side of the road and one 12-foot travel lane with a concrete curb on the southbound side of the road. Within the study area, the pavement is in fair condition. Sidewalk is not provided on either side of the roadway. Parking is not expressly prohibited on either side of the roadway. Shady Lane Farm Road is under the jurisdiction of the Town of Ossining. There is no posted speed limit on Shady Lane Farm Road. NYSDOT does not report AADT on Shady Lane Farm Road.

Briarcliff Peekskill Parkway (NY Route 9A) Northbound Off-Ramp is a north-south oriented State roadway that is classified by NYSDOT as the off-ramp from an urban “Principal Arterial Other.” The Briarcliff Peekskill Parkway Northbound Off-Ramp travels from the Briarcliff Peekskill Parkway approximately 750 feet west to its terminus at Shady Lane Farm Road. Near Shady Lane Farm Road, the Briarcliff Peekskill Parkway Northbound Off-Ramp provides one 24-foot travel lane and no paved shoulders for westbound traffic. Within the study area, the pavement is in fair condition. Sidewalk is not provided on either side of the roadway. Parking is not permitted on either side of the roadway. The Briarcliff Peekskill Parkway Northbound Off-Ramp is under the jurisdiction of NYSDOT. There is a 25 mile per hour advisory speed posted on the Briarcliff Peekskill Parkway Northbound Off-Ramp. NYSDOT reports a 2023 estimated Average Annual Daily Traffic (AADT) volume of 1,132 on the Briarcliff Peekskill Parkway Northbound Off-Ramp.

3.2 Description of Study Intersections

The following provides a description of the intersection geometry and traffic controls at each of the study intersections. This information is also provided graphically on **Figure 2**.

Albany Post Road (US 9) & Old Albany Post Road/Mystic Drive – Mystic Drive forms the eastbound approach and Old Albany Post Road forms the westbound approach to this signalized four-way intersection with Albany Post Road (US 9). Although the eastbound Mystic Drive approach to the intersection provides no line striping, historical imagery of the intersection indicates that the 24-foot-wide roadway is used as a two-lane approach to Albany Post Road (an exclusive left turn lane and a shared through/right turn lane). The westbound Old Albany Post Road approach to the intersection provides one travel lane. Northbound Albany Post Road provides a two-lane approach to the intersection (an exclusive through lane – no left-turns are permitted from northbound Route 9 into Mystic Drive - and a shared through/right turn lane). Southbound Albany Post Road provides

a two-lane approach to the intersection (a shared left turn/through lane and a shared through/right turn lane).

Old Albany Post Road & Shady Lane Farm Road – Shady Lane Farm Road forms the westbound approach to this unsignalized, “T”-intersection with Old Albany Post Road. It provides one Stop-controlled travel lane. Old Albany Post Road forms the northbound and southbound approaches to the intersection, each providing one free-flowing travel lane (a through/right-turn lane northbound and a left/through lane southbound).

Shady Lane Farm Road & the Briarcliff Peekskill Parkway (NY 9A) Northbound Off-Ramp – The Briarcliff Peekskill Parkway (NY 9A) Northbound Off-Ramp forms the westbound approach to this unsignalized, “T”-intersection with Shady Lane Farm Road. It provides one Stop-controlled travel lane. Shady Lane Farm Road forms the northbound and southbound approaches to the intersection, each providing one free-flowing, through travel lane.



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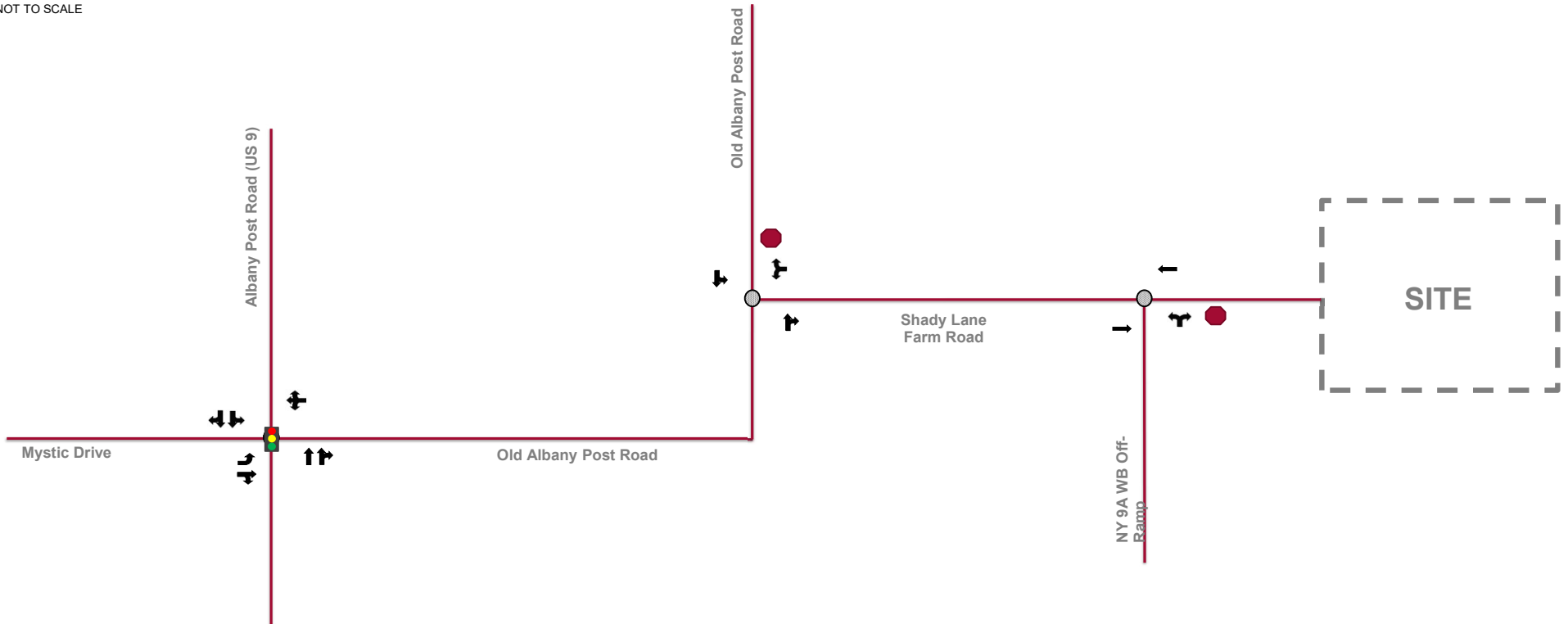


Figure 2
Intersection Geometry
1 Old Albany Post Road
Crotonville, Westchester Co., NY

3.3 *Traffic Data Collection*

Turning movement, pedestrian and classification traffic counts were conducted on Thursday, May 30, 2024, during the weekday AM peak period (7:00 to 9:00 a.m.) and weekday PM peak period (4:15 to 6:15 p.m.) at each of the study intersections. Additional turning movement, pedestrian and classification traffic counts were conducted at each of the study intersections on Saturday, June 1, 2024, during the Saturday midday peak period (12:30 to 2:30 p.m.). The existing peak hour traffic volumes are shown in **Figure 3**.

The raw intersection counts are provided in the Appendix to this report.



NOT TO SCALE

- Legend**
- Study Roadway
 - XX AM Peak Hour Traffic
 - (XX) PM Peak Hour Traffic
 - <XX> SAT Peak Hour Traffic
 - Study Intersection

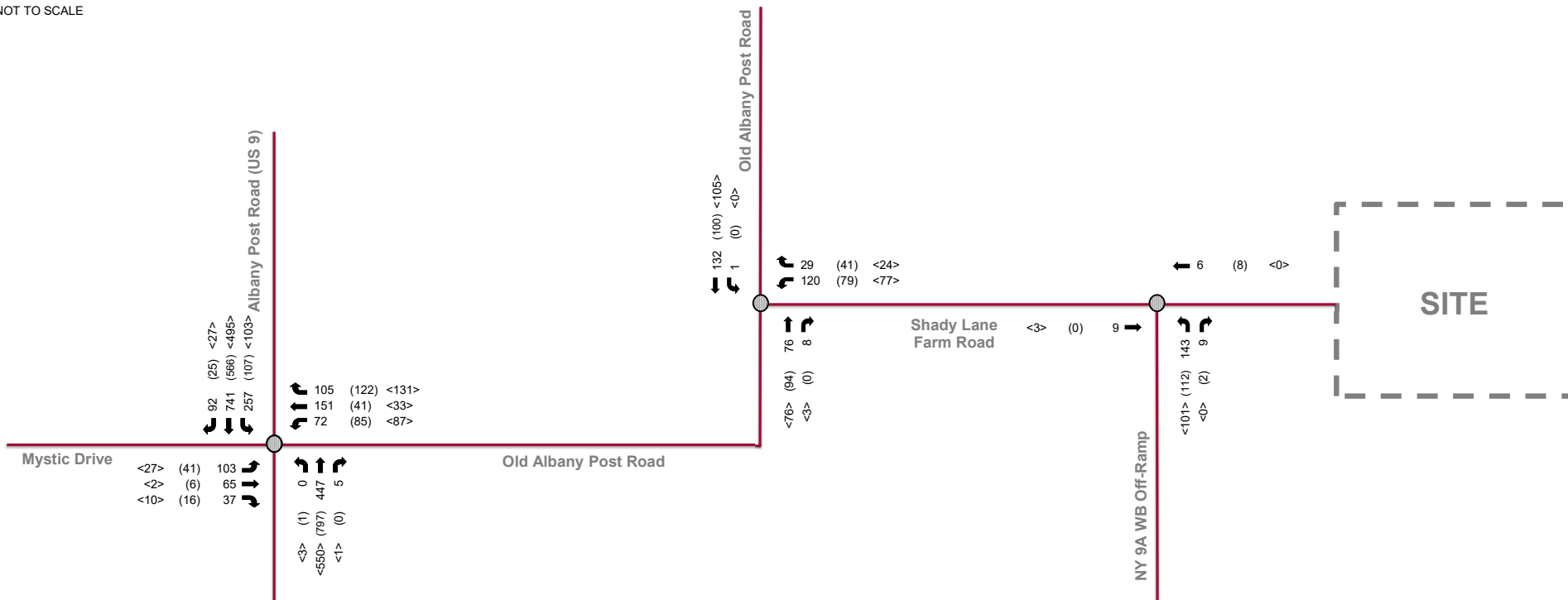
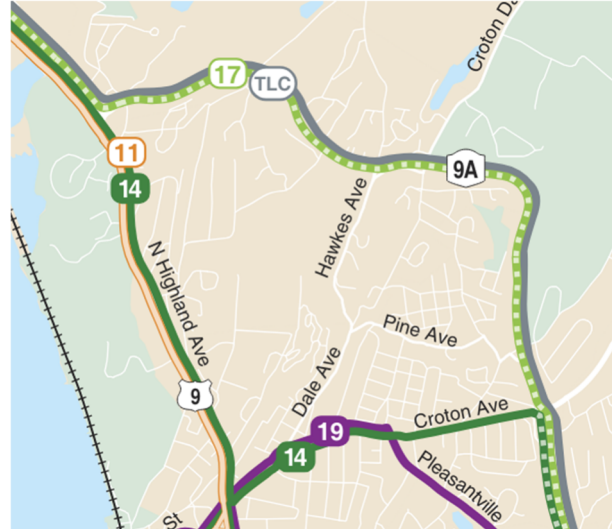


Figure 3
Existing 2024 Traffic Volumes
1 Old Albany Post Road
Crotonville, Westchester Co., NY

3.4 Public Transportation

Bus service in the study area is provided by Westchester County's Bee-Line bus System. The nearest bus routes to the Project site are route #11 and route #14. Route #11 operates on weekdays only between Croton and Elmsford/White Plains. It runs primarily north-south along US Route 9 and NY Route 9A. Route #14 operates 7 days a week between Peekskill/Ossining and White Plains. It runs primarily north-south along the US Route 9. The nearest bus stop for both route #11 and route #14 is on Albany Post Road (US Route 9) immediately south of Old Albany Post Road/Mystic



Drive on both the northbound and southbound sides of the roadway. Route #11 runs 2 northbound and 2 southbound buses on weekdays. Route #14 runs 18 northbound and 16 southbound buses on weekdays, 16 northbound and 14 southbound buses on Saturdays, and 5 northbound and 5 southbound buses on Sundays.

Commuter rail service is provided 1.5 miles northwest of the site at the Croton Harmon railroad station.

4.0 FUTURE NO-BUILD CONDITIONS

The future No-Build conditions are the forecast traffic conditions that are expected to occur without the proposed development in the year 2025, when the full build-out of the Project is anticipated. This includes background traffic growth and traffic associated with any other known planned / approved developments. The derivation of the No-Build traffic volumes is described below.

4.1 Background Traffic Growth

Background traffic growth represents typical traffic growth not associated with any planned development. The Existing Volumes were grown to the year 2025 by 1%, a conservative projection based on NYSDOT historical traffic growth rates for roadways of similar classification in Westchester County. The “Grown” traffic volumes are shown on **Figure 4** for the Weekday AM and PM peak hours.

4.2 Vicinity Developments

The only known project in the vicinity of the development that is likely to add significant traffic volumes to the study intersections is the Specialty Hospital proposed for 2016 Quaker Ridge Road in the Town of Cortlandt. Peak-hour traffic for this development was obtained from materials submitted by the applicant for that project to the Town of Cortlandt. The Vicinity Development traffic volumes are shown in **Figure 5**.

4.3 Continued use of Facility as a Training Center

The alternative to the Proposed Action is for the facility to continue to function as a training facility (as it did in the past). To determine the potential traffic that would be generated by this alternative, Kimley-Horn performed manual trip generation counts at the existing GE Training Facility during the week of February 19, 2024. During this week, a total of 150 guests were training at the facility. It is also noted that the training typically occurs during weekdays (Monday through Friday). Therefore, the trip generation of the existing GE Training Facility on a typical Saturday is negligible. A summary of the results of the manual trip generation counts performed at the existing GE training center is included in **Table 1**.

Table 1 – Observed GE Training Facility Trip Generation				
Development	Size	Weekday		Saturday
		AM Peak Hour	PM Peak Hour	Peak Hour
Existing Facility	248 Rooms	17	13	3

However, it is understood that, during the peak usage of the GE Training Facility, an average of approximately 300 guests were training at the facility per week, or approximately two times the number of guests that were training during the performance of the manual trip generation counts. Therefore, the trip generation of the GE Training Facility during its peak usage was determined by doubling the existing trip generation summarized in **Table 1**. The estimated peak trip generation of the existing GE Training Facility is summarized in **Table 2**.

Table 2 – Estimated Peak GE Training Facility Trip Generation				
Development	Size	Weekday		Saturday
		AM Peak Hour	PM Peak Hour	Peak Hour
Existing Facility	248 Rooms	34	26	6

The Training Center peak-hour traffic volumes are shown in **Figure 6**.

4.4 No-Build Traffic Volumes

The No-Build or, more correctly, No-Action, traffic volumes are the sum of the Grown traffic volumes, the Vicinity Development traffic volumes, and the Training Facility traffic volumes. The Forecasted 2025 No-Build traffic volumes are shown in **Figure 7**.



NOT TO SCALE

- Legend**
- Study Roadway
 - XX AM Peak Hour Traffic
 - (XX) PM Peak Hour Traffic
 - <XX> SAT Peak Hour Traffic
 - Study Intersection

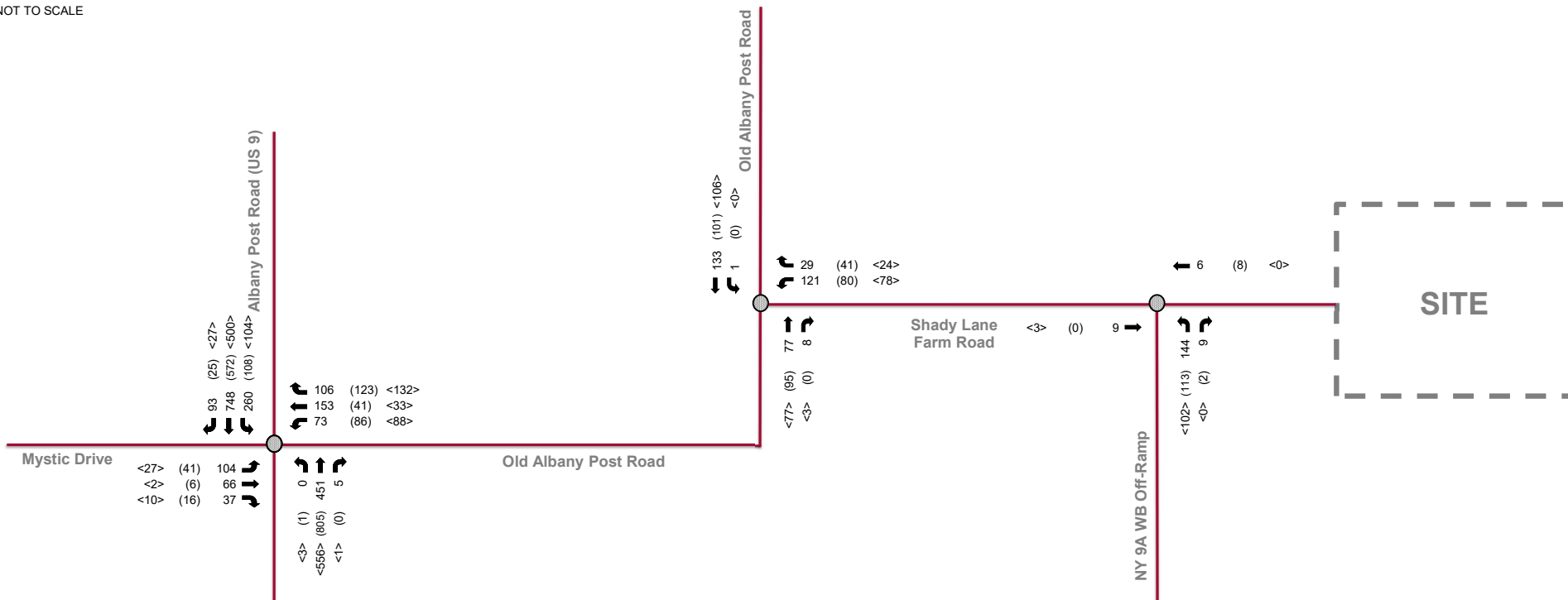


Figure 4
Grown Traffic Volumes
1 Old Albany Post Road
Crotonville, Westchester Co., NY



NOT TO SCALE

- Legend**
- Study Roadway
 - XX AM Peak Hour Traffic
 - (XX) PM Peak Hour Traffic
 - <XX> SAT Peak Hour Traffic
 - Study Intersection

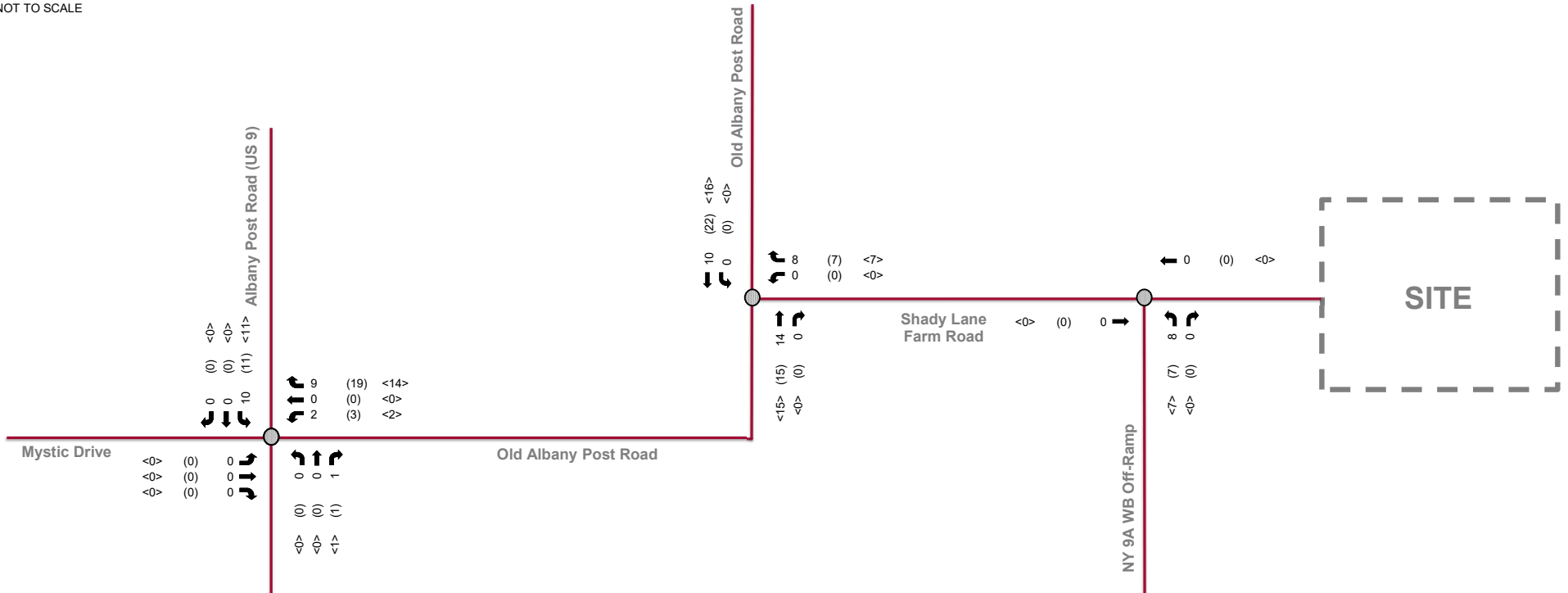


Figure 5
Vicinity Development Traffic Volumes
1 Old Albany Post Road
Crotonville, Westchester Co., NY



NOT TO SCALE

- Legend**
- Study Roadway
 - XX AM Peak Hour Traffic
 - (XX) PM Peak Hour Traffic
 - <XX> SAT Peak Hour Traffic
 - Study Intersection

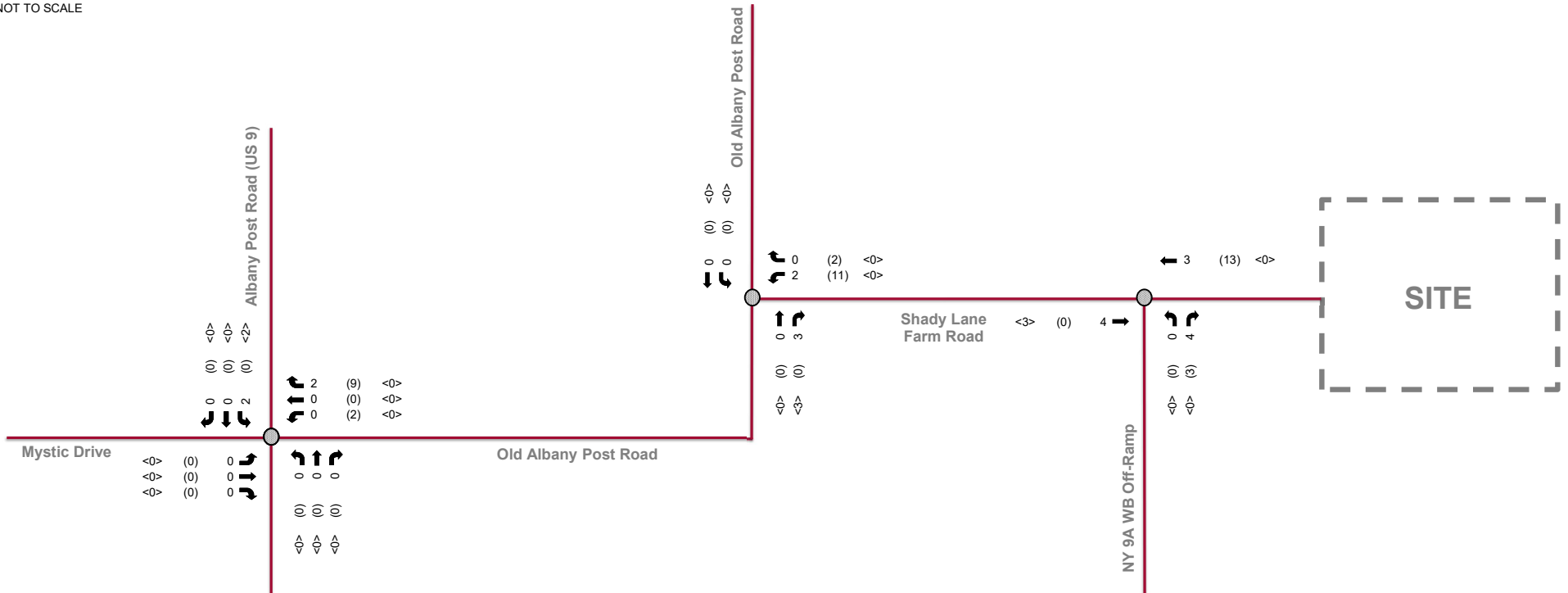
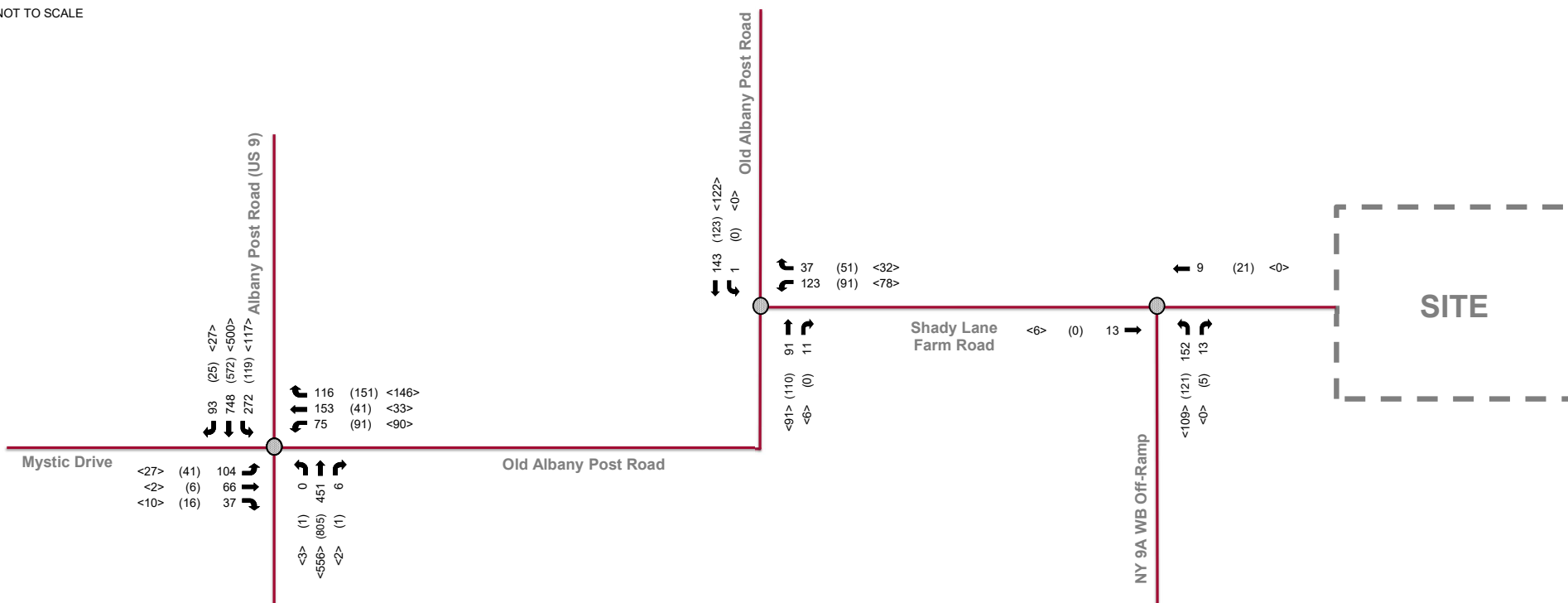


Figure 6
Additional Training Center Traffic Volumes
1 Old Albany Post Road
Crotonville, Westchester Co., NY



NOT TO SCALE

- Legend**
- Study Roadway
 - XX AM Peak Hour Traffic
 - (XX) PM Peak Hour Traffic
 - <XX> SAT Peak Hour Traffic
 - Study Intersection



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Figure 7
Forecasted 2025 No-Build Traffic Volumes
1 Old Albany Post Road
Crotonville, Westchester Co., NY

5.0 PROJECT TRAFFIC

Project traffic is the number of vehicle trips forecast to be generated by the proposed development. The Project traffic is calculated and dispersed onto the road network and through the study intersections by applying the trip distribution to the trip generation to get the trip assignment.

5.1 Trip Generation

To evaluate the potential traffic impacts of the Project, it is necessary to determine the traffic volumes expected to be generated by the Proposed Action. The existing training facility consists of a number of different elements which, combined, served its core mission. These elements included:

- Lodging (guestrooms)
- Catering facilities
- Recreation facilities
- Meeting facilities
- Event facilities
- Maintenance facilities
- Parking facilities
- Security facilities
- Storage facilities
- Residence for manager

When converted to a public-facing hotel and conference center these individual elements will continue to operate in an accessory role to the overall conference center use. While some of the individual elements could generate traffic specifically and only for that element, the facility will be owned and operated as an integrated hotel and conference center.

The Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, describes Land Use Code 310, Hotel, as “a place of lodging that provides sleeping accommodations and supporting facilities such as a full-service restaurant, cocktail lounge, meeting rooms, banquet room, and convention facilities. A hotel typically provides a swimming pool or another recreational facility such as a fitness room.” Thus, the proposed Crotonville facility, when open for use by the public, would best fit the ITE definition of a hotel and Land Use Code 310 could be used to project the volumes of traffic.

This study conservatively evaluates the prospective conversion of the existing 248-room private training facility to a 300-room public hotel/conference center. Access to the site will remain via the existing driveway (Shady Lane Farm Road) to Old Albany Post Road.

The trips estimated to be generated by the hotel and conference center were forecast based on data contained in the Institute of Transportation Engineers' (ITE) publication *Trip Generation Manual*, 11th Edition. Land Use Code 310, Hotel, was used to estimate the trips to be generated by the proposed 300-room hotel/conference center.

Due to the nature of the proposed land use, the Project was not considered for pass-by or internal capture trip generation reductions.

To understand how much traffic the proposed Crotonville facility might generate on a typical day, trip generation calculations were performed using the average rates published by ITE for Land Use Code 310 for a 300-room/key hotel. The results of these trip generation calculations are summarized in **Table 3**.

Table 3 – Anticipated Trip Generation - Hotel				
Development	Size	Weekday		Saturday
		AM Peak Hour	PM Peak Hour	Peak Hour
Hotel	300 Rooms	138	177	216

As indicated in Table 3, the Project is anticipated to generate 138 vehicular trips during the weekday AM peak hour, 177 vehicular trips during the weekday PM peak hour, and 216 vehicular trips during the Saturday midday peak hour.

It is noted, however, that, based on historical data obtained by Kimley-Horn, the former executive training center was estimated to generate 34 vehicular trips during the weekday AM peak hour, 26 vehicular trips during the weekday PM peak hour, and 6 vehicular trips during the Saturday midday peak hour. Therefore, the Project is anticipated to add on 104 new vehicular trips to the surrounding roadways during the weekday AM peak hour, 151 new vehicular trips during the weekday PM peak hour, and 210 new vehicular trips during the Saturday midday peak hour.

5.2 Trip Distribution and Assignment

Trip distribution was based on a review of existing Average Daily Traffic (ADT) volumes published by the NYSDOT for the roadways within the environs of the Project. Specifically, ADT volumes on the Croton Expressway (US Route 9/State Route 9A - north of Old Albany Post Road), ADT volumes on Albany Post Road, south of Old Albany Post Road, and ADT volumes on the Briarcliff-Peekskill Parkway, east of US Route 9 were reviewed. Based on this evaluation, the distribution of Project trips to the adjacent roadway network is generally forecast to be:

- 45% to/from the north on the Croton Expressway (US Route 9/ NY Route 9A)/Albany Post Road (US Route 9)
- 30% to/from the east on the Briarcliff Peekskill Parkway (NY Route 9A)
- 15% to/from the south on Albany Post Road (US Route 9)
- 10% to/from the north on Old Albany Post Road

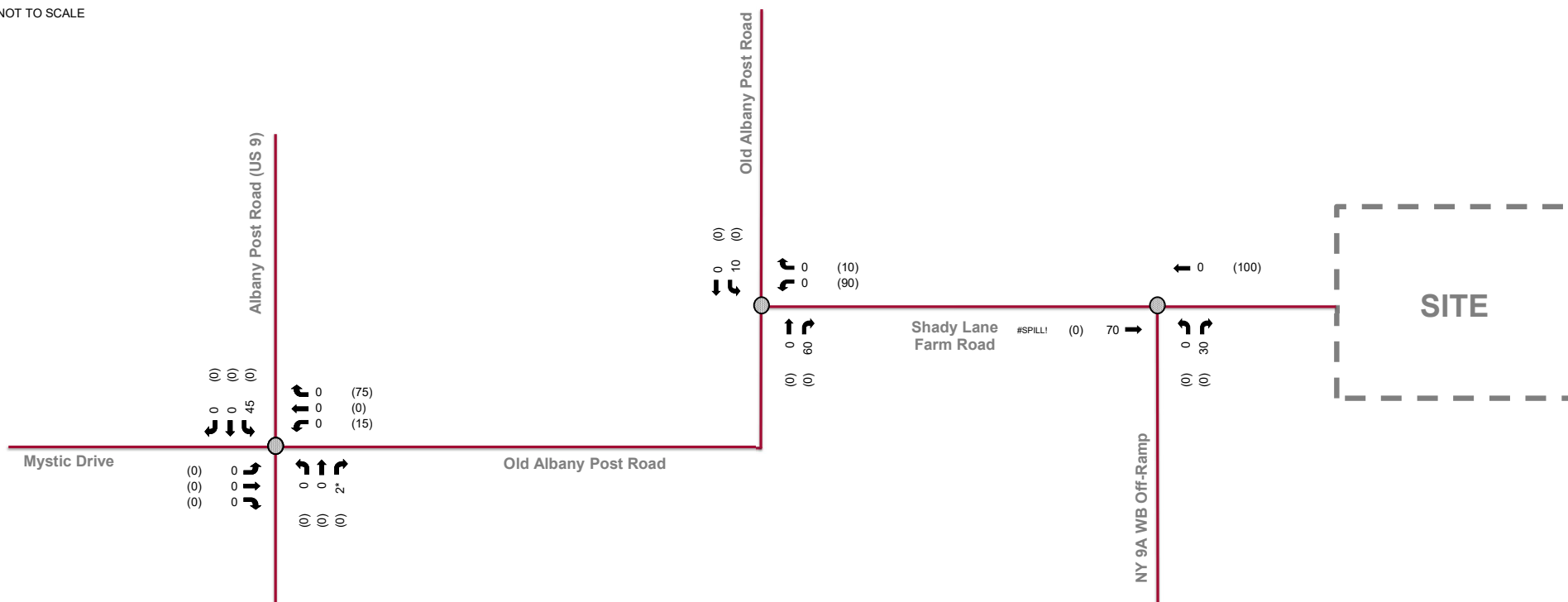
The arrival and departure patterns for the Project-Generated Trips are shown in **Figure 8**. The new Project-Generated Trips for the proposed development, which are summarized in **Figure 9**, were determined by

applying the Project-generated vehicular trips (shown in **Table 3**) to the arrival and departure distribution percentages (shown in **Figure 8**).



NOT TO SCALE

- Legend**
- Study Roadway
 - XX IN% Distribution
 - (XX) OUT% Distribution
 - Study Intersection



* 13% take Brooke Club Drive

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Figure 8
Trip Distribution
1 Old Albany Post Road
Crotonville, Westchester Co., NY



NOT TO SCALE

- Legend**
- Study Roadway
 - XX AM Peak Hour Traffic
 - (XX) PM Peak Hour Traffic
 - <XX> SAT Peak Hour Traffic
 - Study Intersection

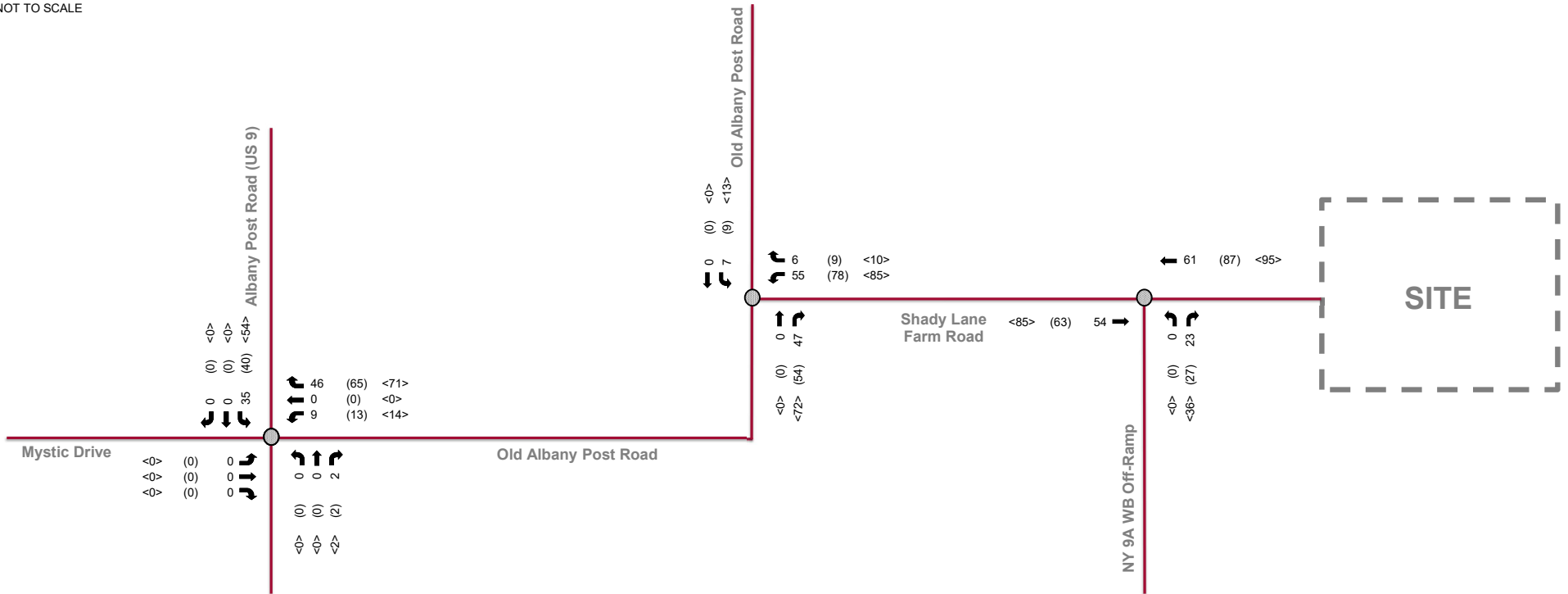


Figure 9
Trip Assignment
1 Old Albany Post Road
Crotonville, Westchester Co., NY

6.0 FUTURE BUILD TRAFFIC CONDITIONS

The Future Build conditions are defined as the forecast traffic conditions on the roadway network in the year 2025, with the proposed Project. The future traffic volumes with the Project were determined by subtracting the Training Facility traffic volumes (shown in Figure 6) from the No-Build traffic volumes, (shown in Figure 7) and adding the total Project trips shown in **Figure 9**, resulting in the 2025 Build traffic volumes shown in **Figure 10**.



NOT TO SCALE

- Legend**
- Study Roadway
 - XX AM Peak Hour Traffic
 - (XX) PM Peak Hour Traffic
 - <XX> SAT Peak Hour Traffic
 - Study Intersection

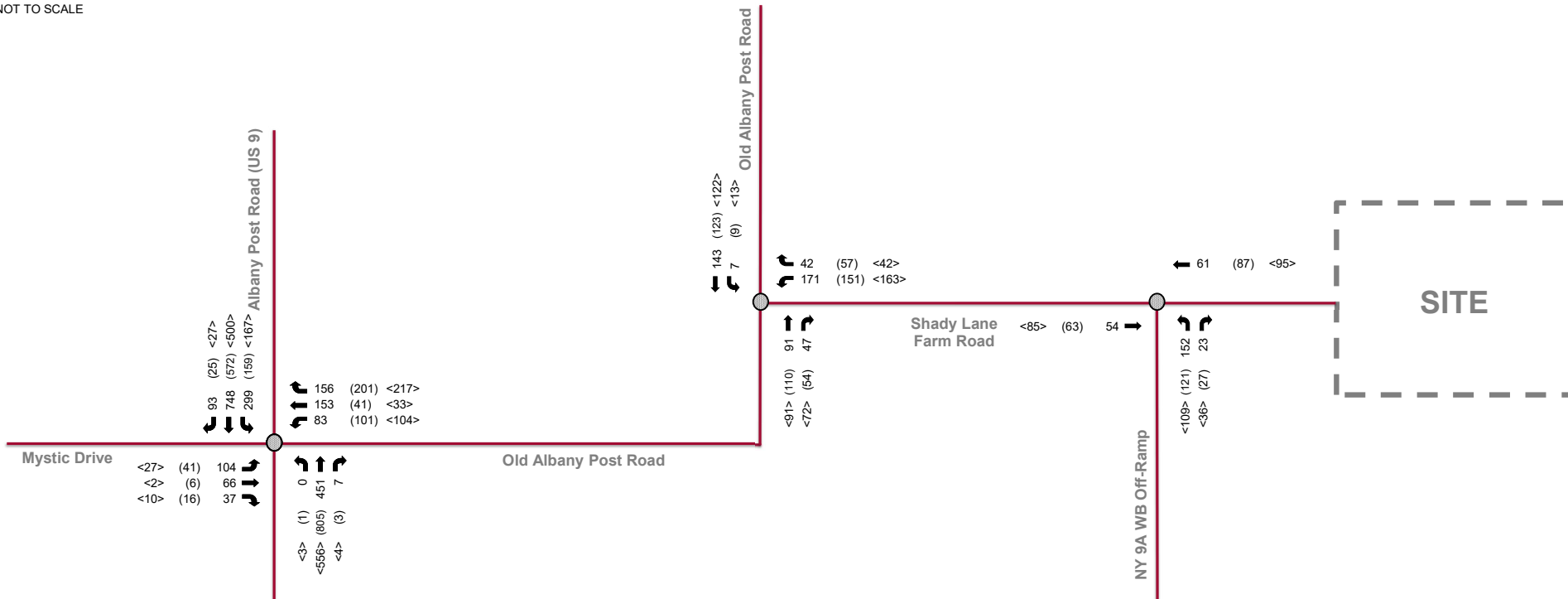


Figure 10
Forecasted 2025 Build Traffic Volumes
1 Old Albany Post Road
Crotonville, Westchester Co., NY

7.0 CAPACITY ANALYSIS

7.1 Intersection Capacity Analysis

An intersection capacity analysis was conducted using the Existing, No-Build and Build peak-hour traffic volumes shown in **Figure 3**, **Figure 7**, and **Figure 10**, respectively, to assess the quality of the traffic flow at the study intersections.

The criteria used to analyze the study intersections is based on the evaluation criteria contained in the Transportation Research Board's *Highway Capacity Manual* ("HCM") 7th Edition (with the exception of the intersection of Albany Post Road (US Route 9) with Old Albany Post Road/Mystic Drive, which was required to be analyzed based on the evaluation criteria contained in the *Highway Capacity Manual 2000* because of the existing traffic signal phasing). The term "Level of Service" ("LOS") is used to denote the different operating conditions that occur at an intersection under various traffic volume loads. It is a qualitative measure that considers a number of factors including roadway geometry, speed, travel delay, and freedom to maneuver. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

Synchro software (Version 12) was used to model the study intersections based on the parameters mentioned above. Synchro software is widely used by traffic engineering professionals, is approved for use by the NYSDOT, and is consistent with the procedures in the HCM.

The LOS designations are based on delay. For unsignalized intersections, the analysis assumes that traffic on the mainline is not affected by traffic on the side streets. Thus, the LOS designation is for the critical movement exiting the side street, which is generally the left turn out of the side street or site driveway. For the purposes of this analysis, control delay is defined as the total elapsed time that includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. The control delay criteria for the range of service levels for signalized and unsignalized intersections are shown in **Table 4**.

TABLE 4- LEVEL OF SERVICE CRITERIA		
Level of Service	Signalized Intersection Control Delay Per Vehicle	Unsignalized Intersection Control Delay Per Vehicle
A	≤ 10.0 seconds	≤ 10.0 seconds
B	>10.0 and ≤20.0 seconds	>10.0 and ≤15.0 seconds
C	>20.0 and ≤35.0 seconds	>15.0 and ≤25.0 seconds
D	>35.0 and ≤55.0 seconds	>25.0 and ≤45.0 seconds
E	>55.0 and ≤80.0 seconds	>35.0 and ≤50.0 seconds
F	>80.0 seconds	>50.0 seconds

The results of the intersection analysis for the Existing, No-Build and the Build volume conditions for the peak hours are summarized in **Table 5, Table 6, and Table 7** for the weekday AM, weekday PM and Saturday midday conditions. The analysis worksheets are provided in the Appendix.

Direction	Approach/ Movement	TABLE 5 – Intersection Capacity Analysis AM Peak Hour					
		Existing 2024		Forecasted 2025 Without Development		Forecasted 2025 With Development	
		LOS	DELAY	LOS	DELAY	LOS	DELAY
INTERSECTION	ALBANY POST ROAD (US 9) AND OLD ALBANY POST ROAD/MYSTIC DRIVE						
MYSTIC DRIVE							
Eastbound	Left Turn	C	32.8	D	37.1	D	41.2
	Through	C	22.9	C	23.7	C	24.1
	Right Turn						
	Approach	C	27.9	C	30.4	C	32.7
OLD ALBANY POST ROAD							
Westbound	Approach	D	35.9	D	40.2	D	48.1
ALBANY POST ROAD (US 9)							
Northbound	Approach	A	7.3	A	7.3	A	8.0
ALBANY POST ROAD (US 9)							
Southbound	Approach	B	15.8	B	16.9	C	20.6
	OVERALL	B	18.4	C	20.0	C	24.1
INTERSECTION	OLD ALBANY POST ROAD AND SHADY LANE FARM ROAD						
SHADY LANE FARM ROAD							
Westbound	Approach	B	10.1	B	10.3	B	11.1
OLD ALBANY POST ROAD							
Southbound	Approach	A	0.1	A	0.1	A	0.4
INTERSECTION	SHADY LANE FARM ROAD AND NY 9A NORTHBOUND OFF-RAMP						
NY 9A OFF-RAMP							
Westbound	Approach	A	9.4	A	9.5	B	10.3

LOS = Level of Service

Delay = Average delay in seconds per vehicle

Direction	Approach/ Movement	TABLE 6 – Intersection Capacity Analysis PM Peak Hour					
		Existing 2024		Forecasted 2025 Without Development		Forecasted 2025 With Development	
		LOS	DELAY	LOS	DELAY	LOS	DELAY
INTERSECTION	ALBANY POST ROAD (US 9) AND OLD ALBANY POST ROAD/MYSTIC DRIVE						
MYSTIC DRIVE							
Eastbound	Left Turn	B	14.9	B	15.5	B	17.6
	Through	B	14.1	B	14.6	B	16.4
	Right Turn						
	Approach	B	14.6	B	15.2	B	17.2
OLD ALBANY POST ROAD							
Westbound	Approach	B	17.4	B	19.0	C	23.6
ALBANY POST ROAD (US 9)							
Northbound	Approach	A	8.1	A	8.5	A	9.0
ALBANY POST ROAD (US 9)							
Southbound	Approach	A	9.2	B	10.3	B	12.8
	OVERALL	B	10.1	B	11.0	B	13.3
INTERSECTION	OLD ALBANY POST ROAD AND SHADY LANE FARM ROAD						
SHADY LANE FARM ROAD							
Westbound	Approach	A	9.6	A	9.9	B	10.8
OLD ALBANY POST ROAD							
Southbound	Approach	A	0.0	A	0.0	A	0.5
INTERSECTION	SHADY LANE FARM ROAD AND NY 9A NORTHBOUND OFF-RAMP						
NY 9A OFF-RAMP							
Westbound	Approach	A	9.1	A	9.2	B	10.1

LOS = Level of Service

Delay = Average delay in seconds per vehicle

Direction	Approach/ Movement	TABLE 7 – Intersection Capacity Analysis Saturday Peak Hour					
		Existing 2024		Forecasted 2025 Without Development		Forecasted 2025 With Development	
		LOS	DELAY	LOS	DELAY	LOS	DELAY
INTERSECTION	ALBANY POST ROAD (US 9) AND OLD ALBANY POST ROAD/MYSTIC DRIVE						
MYSTIC DRIVE							
Eastbound	Left Turn	B	11.6	B	12.0	B	13.0
	Through	B	11.3	B	11.6	B	12.5
	Right Turn						
	Approach	B	11.5	B	11.9	B	12.9
OLD ALBANY POST ROAD							
Westbound	Approach	B	13.7	B	14.3	B	17.1
ALBANY POST ROAD (US 9)							
Northbound	Approach	A	7.5	A	7.6	A	8.5
ALBANY POST ROAD (US 9)							
Southbound	Approach	A	8.5	A	8.9	B	10.8
	OVERALL	A	9.2	A	9.5	B	11.5
INTERSECTION	OLD ALBANY POST ROAD AND SHADY LANE FARM ROAD						
SHADY LANE FARM ROAD							
Westbound	Approach	A	9.5	A	9.6	B	10.8
OLD ALBANY POST ROAD							
Southbound	Approach	A	0.0	A	0.0	A	0.7
INTERSECTION	SHADY LANE FARM ROAD AND NY 9A NORTHBOUND OFF-RAMP						
NY 9A OFF-RAMP							
Westbound	Approach	A	9.0	A	9.1	B	10.5

LOS = Level of Service

Delay = Average delay in seconds per vehicle

A descriptive summary of the Synchro analysis results shown in **Table 5**, **Table 6** and **Table 7** is provided on the following pages.

Albany Post Road (US Route 9) & Old Albany Post Road/Mystic Drive

- Under Existing conditions, the intersection operates at an overall intersection Level of Service (“LOS”) “B” during the weekday AM and weekday PM peak hours and an overall LOS “A” during the Saturday midday peak hour.

- In the future under No-Build conditions (without the proposed Project, but with forecast increases in existing traffic volumes), the intersection is anticipated to continue to operate at an overall intersection LOS “C” during the weekday AM peak hour, an overall intersection LOS “B” during the weekday PM peak hour and at an overall intersection LOS “A” during Saturday midday peak hour.
- Under future Build conditions (with forecast increases in existing traffic volumes and Project traffic added), the intersection is anticipated to operate an overall intersection LOS “C” during the weekday AM peak hour and at an overall intersection LOS “B” during both the weekday PM and Saturday midday peak hours.

Old Albany Post Road & Shady Lane Farm Road

- Under Existing conditions, the westbound Shady Lane Farm Road approach to Old Albany Post Road operates at a LOS “B” during the weekday AM peak hour and a LOS “A” during the weekday PM and Saturday midday peak hours. The southbound Old Albany Post Road approach to Shady Farm Lane operates at a LOS “A” during each of the peak periods analyzed.
- Under future No-Build conditions (without the proposed Project but with forecasted increases in existing traffic volumes), the westbound Shady Lane Farm Road approach to Old Albany Post Road can be anticipated to operate at a LOS “B” during the weekday AM peak hour and a LOS “A” during the weekday PM and Saturday midday peak hours. The southbound Old Albany Post Road approach to Shady Farm Lane can be anticipated to operate at a LOS “A” during each of the peak periods analyzed.
- Under future Build conditions (with forecasted increases in existing traffic volumes and Project traffic added), the westbound Shady Lane Farm Road approach to Old Albany Post Road can be anticipated to operate at a LOS “B” during each of the peak periods analyzed and the southbound Old Albany Post Road approach to Shady Farm Lane can be anticipated to operate at a LOS “A” during each of the peak periods analyzed.

Shady Lane Farm Road & The Briarcliff Peekskill Parkway Northbound Off-Ramp

- Under Existing conditions, the westbound Briarcliff Peekskill Parkway Northbound Off-Ramp approach to Shady Farm Lane Road operates at a LOS “A” during each of the peak periods analyzed.
- Under future No-Build conditions (without the proposed Project but with forecasted increases in existing traffic volumes), the westbound Briarcliff Peekskill Parkway Northbound Off-Ramp approach to Shady Farm Lane Road can be anticipated to operate at a LOS “A” during each of the peak periods analyzed.
- Under future Build conditions (with forecasted increases in existing traffic volumes and Project traffic added), the westbound Briarcliff Peekskill Parkway Northbound Off-Ramp approach to

Shady Farm Lane Road can be anticipated to operate at a LOS "B" during each of the peak periods analyzed.

8.0 CONCLUSIONS

Based on the analysis provided herein, it is concluded that traffic generated by Project **will not result in any significant adverse impact on traffic conditions**. The following minor degradations in Level of Service can be anticipated at the study intersections because of the addition of Project Traffic:

Albany Post Road (US Route 9) & Old Albany Post Road/Mystic Drive

- The overall intersection can be anticipated to decrease from a LOS "A" to a LOS "B" during the Saturday midday peak hour.

Old Albany Post Road & Shady Lane Farm Road

- The westbound Shady Lane Farm Road approach to Old Albany Post Road can be anticipated to decrease from a LOS "A" to a LOS "B" during both the weekday PM and Saturday midday peak hours.

Shady Lane Farm Road & The Briarcliff Peekskill Parkway Westbound Off-Ramp

- The westbound Briarcliff Peekskill Parkway Westbound Off-Ramp approach to Shady Farm Lane Road can be anticipated to decrease from a LOS "A" to a LOS "B" during each of the peak periods analyzed.

However, each of the study intersections provides sufficient capacity to accommodate Project traffic.

APPENDIX

National Data & Surveying Services

Intersection Turning Movement Count

Location: US 9/Albany Post Rd & Old Albany Post Rd/Mystic Dr
City: Ossining
Control: Signalized

Project ID: 24-380050-003
Date: 5/30/2024

Data - Total

NS/EW Streets:	US 9/Albany Post Rd				US 9/Albany Post Rd				Old Albany Post Rd/Mystic Dr				Old Albany Post Rd/Mystic Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	0	104	0	0	22	161	3	1	13	2	3	0	16	8	40	0	373
7:15 AM	0	113	0	0	35	202	4	1	7	4	5	0	20	19	27	0	437
7:30 AM	0	114	2	0	64	235	17	0	14	14	10	0	20	38	25	0	553
7:45 AM	0	120	0	0	72	159	39	1	35	17	8	0	14	47	33	0	545
8:00 AM	0	119	0	0	70	150	24	0	41	25	13	0	19	47	16	0	524
8:15 AM	0	94	3	0	51	197	11	0	13	9	6	0	19	19	31	0	453
8:30 AM	0	97	0	0	29	184	11	0	9	1	5	0	21	8	25	0	390
8:45 AM	0	105	0	0	32	146	1	1	9	2	5	0	21	3	34	0	359
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	866	5	0	375	1434	110	4	141	74	55	0	150	189	231	0	3634
	0.00%	99.43%	0.57%	0.00%	19.50%	74.57%	5.72%	0.21%	52.22%	27.41%	20.37%	0.00%	26.32%	33.16%	40.53%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	447	5	0	257	741	91	1	103	65	37	0	72	151	105	0	2075
PEAK HR FACTOR :	0.000	0.931	0.417	0.000	0.892	0.788	0.583	0.250	0.628	0.650	0.712	0.000	0.900	0.803	0.795	0.000	0.938
	0.942				0.862				0.649				0.872				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:15 PM	0	183	2	0	23	146	8	0	12	0	7	0	18	14	31	0	444
4:30 PM	0	181	1	0	16	140	5	3	8	0	2	0	14	10	29	0	409
4:45 PM	0	207	0	0	29	150	7	3	11	2	6	0	27	12	28	0	482
5:00 PM	1	179	0	0	29	154	6	0	16	3	5	0	23	13	31	0	460
5:15 PM	0	203	0	0	20	134	4	0	5	1	2	0	16	9	37	0	431
5:30 PM	0	208	0	0	29	128	5	0	9	0	3	0	19	7	26	0	434
5:45 PM	0	196	0	0	32	158	3	2	7	0	2	0	22	4	32	0	458
6:00 PM	0	177	0	0	28	138	5	2	6	1	0	0	15	10	22	0	404
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	1	1534	3	0	206	1148	43	10	74	7	27	0	154	79	236	0	3522
	0.07%	99.74%	0.20%	0.00%	14.64%	81.59%	3.06%	0.71%	68.52%	6.48%	25.00%	0.00%	32.84%	16.84%	50.32%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	1	797	0	0	107	566	22	3	41	6	16	0	85	41	122	0	1807
PEAK HR FACTOR :	0.250	0.958	0.000	0.000	0.922	0.919	0.786	0.250	0.641	0.500	0.667	0.000	0.787	0.788	0.824	0.000	0.937
	0.959				0.923				0.656				0.925				

National Data & Surveying Services

Intersection Turning Movement Count

Location: US 9/Albany Post Rd & Old Albany Post Rd/Mystic Dr
City: Ossining
Control: Signalized

Project ID: 24-380050-003
Date: 5/30/2024

Data - HT

NS/EW Streets:	US 9/Albany Post Rd				US 9/Albany Post Rd				Old Albany Post Rd/Mystic Dr				Old Albany Post Rd/Mystic Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	0	6	0	0	0	10	0	0	0	0	0	0	2	0	1	0	19
7:15 AM	0	11	0	0	0	19	0	0	0	1	0	0	1	1	3	0	36
7:30 AM	0	9	0	0	1	13	4	0	5	3	3	0	2	13	2	0	55
7:45 AM	0	13	0	0	1	9	2	0	4	0	3	0	0	1	2	0	35
8:00 AM	0	7	0	0	2	13	0	0	1	1	0	0	1	1	3	0	29
8:15 AM	0	10	0	0	2	14	0	0	0	0	1	0	0	1	2	0	30
8:30 AM	0	9	0	0	0	21	2	0	1	0	1	0	3	3	0	0	40
8:45 AM	0	12	0	0	4	17	0	0	0	1	0	0	3	0	1	0	38
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	77	0	0	10	116	8	0	11	6	8	0	12	20	14	0	282
	0.00%	100.00%	0.00%	0.00%	7.46%	86.57%	5.97%	0.00%	44.00%	24.00%	32.00%	0.00%	26.09%	43.48%	30.43%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	39	0	0	6	49	6	0	10	4	7	0	3	16	9	0	149
PEAK HR FACTOR :	0.000	0.750	0.000	0.000	0.750	0.875	0.375	0.000	0.500	0.333	0.583	0.000	0.375	0.308	0.750	0.000	0.677
		0.750				0.847				0.477				0.412			
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:15 PM	0	5	0	0	0	8	0	0	0	0	0	0	0	0	0	0	13
4:30 PM	0	5	1	0	0	5	0	0	0	0	0	0	0	0	0	0	11
4:45 PM	0	5	0	0	1	7	0	0	0	0	0	0	2	0	0	0	15
5:00 PM	0	6	0	0	1	8	0	0	0	0	0	0	1	0	1	0	17
5:15 PM	0	9	0	0	1	3	0	0	0	0	0	0	1	0	1	0	15
5:30 PM	0	9	0	0	0	4	1	0	1	0	0	0	0	0	0	0	15
5:45 PM	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0	0	12
6:00 PM	0	8	0	0	0	3	0	0	0	0	0	0	1	0	0	0	12
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	52	1	0	3	45	1	0	1	0	0	0	5	0	2	0	110
	0.00%	98.11%	1.89%	0.00%	6.12%	91.84%	2.04%	0.00%	100.00%	0.00%	0.00%	0.00%	71.43%	0.00%	28.57%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	29	0	0	3	22	1	0	1	0	0	0	4	0	2	0	62
PEAK HR FACTOR :	0.000	0.806	0.000	0.000	0.750	0.688	0.250	0.000	0.250	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.912
		0.806				0.722				0.250				0.750			

National Data & Surveying Services

Intersection Turning Movement Count

Location: US 9/Albany Post Rd & Old Albany Post Rd/Mystic Dr
City: Ossining
Control: Signalized

Project ID: 24-380050-003
Date: 6/1/2024

Data - Total

NS/EW Streets:	US 9/Albany Post Rd				US 9/Albany Post Rd				Old Albany Post Rd/Mystic Dr				Old Albany Post Rd/Mystic Dr				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
12:30 PM	0	129	1	0	27	128	8	2	5	0	1	0	21	9	38	0	369
12:45 PM	2	153	0	0	34	109	7	0	5	1	5	0	21	11	29	0	377
1:00 PM	1	136	0	0	18	118	2	0	6	0	1	0	27	11	33	0	353
1:15 PM	0	132	0	0	24	140	6	2	11	1	3	0	18	2	31	0	370
1:30 PM	1	130	0	0	22	137	5	2	8	1	0	0	25	9	27	0	367
1:45 PM	0	125	1	0	24	134	5	0	8	1	0	0	22	6	31	0	357
2:00 PM	0	126	0	0	29	111	7	1	10	0	2	0	13	9	25	0	333
2:15 PM	1	134	1	0	20	123	10	3	16	1	0	0	19	10	29	0	367
TOTAL VOLUMES :	5	1065	3	0	198	1000	50	10	69	5	12	0	166	67	243	0	2893
APPROACH %'s :	0.47%	99.25%	0.28%	0.00%	15.74%	79.49%	3.97%	0.79%	80.23%	5.81%	13.95%	0.00%	34.87%	14.08%	51.05%	0.00%	
PEAK HR :	12:30 PM - 01:30 PM																TOTAL
PEAK HR VOL :	3	550	1	0	103	495	23	4	27	2	10	0	87	33	131	0	1469
PEAK HR FACTOR :	0.375	0.899	0.250	0.000	0.757	0.884	0.719	0.500	0.614	0.500	0.500	0.000	0.806	0.750	0.862	0.000	0.974
		0.894				0.908				0.650				0.884			

National Data & Surveying Services

Intersection Turning Movement Count

Location: US 9/Albany Post Rd & Old Albany Post Rd/Mystic Dr
City: Ossining
Control: Signalized

Project ID: 24-380050-003
Date: 6/1/2024

Data - HT

NS/EW Streets:	US 9/Albany Post Rd				US 9/Albany Post Rd				Old Albany Post Rd/Mystic Dr				Old Albany Post Rd/Mystic Dr				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
12:30 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8
12:45 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
1:00 PM	0	4	0	0	0	2	0	0	0	0	0	0	1	1	1	0	9
1:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1:30 PM	0	4	0	0	2	3	0	0	0	0	0	0	0	0	0	0	9
1:45 PM	0	4	0	0	0	5	0	0	0	0	0	0	1	0	0	0	10
2:00 PM	0	4	0	0	1	6	0	0	0	0	0	0	0	0	0	0	11
2:15 PM	0	2	0	0	1	1	0	0	1	0	0	0	0	0	0	0	5
TOTAL VOLUMES :	0	30	0	0	4	24	0	0	1	0	0	0	2	1	1	0	63
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	14.29%	85.71%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	50.00%	25.00%	25.00%	0.00%	
PEAK HR :	12:30 PM - 01:30 PM																TOTAL
PEAK HR VOL :	0	16	0	0	0	9	0	0	0	0	0	0	1	1	1	0	28
PEAK HR FACTOR :	0.000	0.800	0.000	0.000	0.000	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.778
	0.800				0.563								0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Albany Post Rd & Shady Lane Farm Rd
City: Ossining
Control: 1-Way Stop(WB)

Project ID: 24-380050-002
Date: 5/30/2024

Data - Total

NS/EW Streets:	Old Albany Post Rd				Old Albany Post Rd				Shady Lane Farm Rd				Shady Lane Farm Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	0	17	1	0	0	29	0	0	0	0	1	0	10	0	6	0	64
7:15 AM	0	10	0	0	0	29	0	0	0	0	0	0	17	0	6	0	62
7:30 AM	0	16	4	0	0	46	0	0	0	0	0	0	34	0	6	0	106
7:45 AM	0	22	1	0	0	34	0	0	0	0	0	0	35	0	6	0	98
8:00 AM	0	18	1	0	1	26	0	0	0	0	0	0	34	0	11	0	91
8:15 AM	0	20	2	0	0	26	0	0	0	0	0	0	17	0	6	0	71
8:30 AM	0	10	1	0	0	28	0	0	0	0	0	0	14	0	9	0	62
8:45 AM	0	11	0	0	0	27	0	0	0	0	0	0	16	0	9	0	63
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	124	10	0	1	245	0	0	0	0	1	0	177	0	59	0	617
	0.00%	92.54%	7.46%	0.00%	0.41%	99.59%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	75.00%	0.00%	25.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	76	8	0	1	132	0	0	0	0	0	0	120	0	29	0	366
PEAK HR FACTOR :	0.000	0.864	0.500	0.000	0.250	0.717	0.000	0.000	0.000	0.000	0.000	0.000	0.857	0.000	0.659	0.000	0.863
	0.913				0.723								0.828				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:15 PM	0	21	0	1	0	29	0	0	0	0	0	0	21	0	4	0	76
4:30 PM	0	12	0	0	0	25	0	0	0	0	0	0	20	0	10	0	67
4:45 PM	0	28	0	0	0	24	0	0	0	0	0	0	23	1	8	0	84
5:00 PM	0	21	0	0	0	24	0	0	0	0	0	0	20	0	8	0	73
5:15 PM	0	25	0	0	0	26	0	0	0	0	0	0	14	0	16	0	81
5:30 PM	0	20	0	0	0	26	0	0	0	0	0	0	16	0	5	0	67
5:45 PM	0	26	1	0	0	29	0	0	0	0	0	0	16	0	10	0	82
6:00 PM	0	23	0	0	1	22	0	0	0	0	0	0	13	0	14	0	73
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	176	1	1	1	205	0	0	0	0	0	0	143	1	75	0	603
	0.00%	98.88%	0.56%	0.56%	0.49%	99.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	65.30%	0.46%	34.25%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	94	0	0	0	100	0	0	0	0	0	0	73	1	37	0	305
PEAK HR FACTOR :	0.000	0.839	0.000	0.000	0.000	0.962	0.000	0.000	0.000	0.000	0.000	0.000	0.793	0.250	0.578	0.000	0.908
	0.839				0.962								0.867				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Albany Post Rd & Shady Lane Farm Rd
City: Ossining
Control: 1-Way Stop(WB)

Project ID: 24-380050-002
Date: 5/30/2024

Data - HT

NS/EW Streets:	Old Albany Post Rd				Old Albany Post Rd				Shady Lane Farm Rd				Shady Lane Farm Rd			
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU
7:00 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	2	0
7:15 AM	0	1	0	0	0	3	0	0	0	0	0	0	2	0	4	0
7:30 AM	0	2	0	0	0	9	0	0	0	0	0	0	6	0	0	0
7:45 AM	0	3	0	0	0	2	0	0	0	0	0	0	1	0	1	0
8:00 AM	0	2	0	0	0	4	0	0	0	0	0	0	1	0	3	0
8:15 AM	0	6	0	0	0	2	0	0	0	0	0	0	1	0	1	0
8:30 AM	0	1	0	0	0	5	0	0	0	0	0	0	0	0	5	0
8:45 AM	0	2	0	0	0	4	0	0	0	0	0	0	1	0	1	0
TOTAL VOLUMES :	NL 0	NT 18	NR 0	NU 0	SL 0	ST 31	SR 0	SU 0	EL 0	ET 0	ER 0	EU 0	WL 12	WT 0	WR 17	WU 0
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	41.38%	0.00%	58.62%	0.00%	0.00%	0.00%	58.62%	0.00%
PEAK HR :	07:30 AM - 08:30 AM															
PEAK HR VOL :	0	13	0	0	0	17	0	0	0	0	0	0	9	0	5	0
PEAK HR FACTOR :	0.000	0.542	0.000	0.000	0.000	0.472	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.417	0.000
	0.542				0.472								0.583			
TOTAL																
44																
0.647																
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	2	0	2	0
4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	3	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL 0	NT 5	NR 0	NU 0	SL 0	ST 1	SR 0	SU 0	EL 0	ET 0	ER 0	EU 0	WL 5	WT 0	WR 5	WU 0
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%	0.00%	0.00%	50.00%	0.00%
PEAK HR :	04:45 PM - 05:45 PM															
PEAK HR VOL :	0	2	0	0	0	1	0	0	0	0	0	0	3	0	3	0
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.250	0.000
	0.250				0.250								0.300			
TOTAL																
9																
0.321																

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Albany Post Rd & Shady Lane Farm Rd
City: Ossining
Control: 1-Way Stop(WB)

Project ID: 24-380050-002
Date: 6/1/2024

Data - Total

NS/EW Streets:	Old Albany Post Rd				Old Albany Post Rd				Shady Lane Farm Rd				Shady Lane Farm Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
12:30 PM	0	19	0	0	0	28	0	0	0	0	0	0	26	0	6	0	79
12:45 PM	0	20	0	1	0	23	0	0	0	0	0	0	19	0	8	0	71
1:00 PM	0	14	0	1	0	36	0	0	0	0	0	0	13	0	6	0	70
1:15 PM	0	23	1	0	0	18	0	0	0	0	0	0	19	0	4	0	65
1:30 PM	0	19	1	2	0	23	0	0	0	0	0	0	17	0	7	0	69
1:45 PM	0	16	0	0	0	20	0	0	0	0	0	0	22	0	6	0	64
2:00 PM	0	17	0	0	0	16	0	0	0	0	0	0	17	0	5	0	55
2:15 PM	0	10	0	0	0	23	0	0	0	0	0	0	17	0	4	0	54
TOTAL VOLUMES :	0	138	2	4	0	187	0	0	0	0	0	0	150	0	46	0	527
APPROACH %'s :	0.00%	95.83%	1.39%	2.78%	0.00%	100.00%	0.00%	0.00%					76.53%	0.00%	23.47%	0.00%	
PEAK HR :	12:30 PM - 01:30 PM																TOTAL
PEAK HR VOL :	0	76	1	2	0	105	0	0	0	0	0	0	77	0	24	0	285
PEAK HR FACTOR :	0.000	0.826	0.250	0.500	0.000	0.729	0.000	0.000	0.000	0.000	0.000	0.000	0.740	0.000	0.750	0.000	0.902
		0.823				0.729								0.789			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Albany Post Rd & Shady Lane Farm Rd
City: Ossining
Control: 1-Way Stop(WB)

Project ID: 24-380050-002
Date: 6/1/2024

Data - HT

NS/EW Streets:	Old Albany Post Rd				Old Albany Post Rd				Shady Lane Farm Rd				Shady Lane Farm Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
TOTAL VOLUMES :	0	5	0	0	0	0	0	0	0	0	0	0	2	0	0	0	7
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0	0	0	0	0	0	0	0	100.00%	0.00%	0.00%	0.00%	
PEAK HR :	12:30 PM - 01:30 PM																TOTAL
PEAK HR VOL :	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4
PEAK HR FACTOR :	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	1.000
	0.500												0.500				

National Data & Surveying Services

Intersection Turning Movement Count

Location: 9A/Briarcliff- Peekskill Pkwy Off-Ramp & Shady Lane Farm Rd
City: Ossining
Control: 2-Way Stop(NB/WB)

Project ID: 24-380050-001
Date: 6/1/2024

Data - Total

NS/EW Streets:	9A/Briarcliff- Peekskill Pkwy Off-Ramp				9A/Briarcliff- Peekskill Pkwy Off-Ramp				Shady Lane Farm Rd				Shady Lane Farm Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
12:30 PM	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
12:45 PM	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
1:00 PM	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
1:15 PM	23	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	24
1:30 PM	23	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	25
1:45 PM	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
2:00 PM	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
2:15 PM	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
TOTAL VOLUMES :	NL 196	NT 0	NR 0	NU 0	SL 0	ST 0	SR 0	SU 0	EL 0	ET 2	ER 0	EU 0	WL 0	WT 1	WR 0	WU 0	TOTAL 199
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	12:30 PM - 01:30 PM																TOTAL
PEAK HR VOL :	101	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	102
PEAK HR FACTOR :	0.789	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.797
	0.789									0.250							

Project ID: 24-380050-001
Date: 6/1/2024

HCM Signalized Intersection Capacity Analysis

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

Existing 2024 AM Peak Hour

06/19/2024

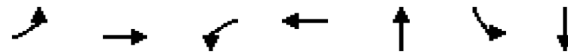
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	65	37	72	151	105	0	447	5	257	741	92
Future Volume (vph)	103	65	37	72	151	105	0	447	5	257	741	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	11	12	12	12	12
Grade (%)		-2%			-3%			-2%				5%
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.94			0.95			0.99			0.98	
Flt Protected	0.95	1.00			0.98			1.00			0.98	
Satd. Flow (prot)	1657	1640			1901			3231			3246	
Flt Permitted	0.40	1.00			0.89			1.00			0.71	
Satd. Flow (perm)	706	1640			1717			3231			2360	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	110	69	39	77	161	112	0	476	5	273	788	98
RTOR Reduction (vph)	0	22	0	0	19	0	0	1	0	0	8	0
Lane Group Flow (vph)	110	86	0	0	331	0	0	480	0	0	1151	0
Heavy Vehicles (%)	10%	6%	19%	4%	11%	9%	0%	9%	0%	2%	7%	7%
Turn Type	Perm	NA		Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8						6		
Actuated Green, G (s)	18.5	18.5			18.5			44.9			44.9	
Effective Green, g (s)	18.5	18.5			18.5			44.9			44.9	
Actuated g/C Ratio	0.25	0.25			0.25			0.60			0.60	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	173	402			421			1924			1405	
v/s Ratio Prot		0.05						0.15				
v/s Ratio Perm	0.16				c0.19						c0.49	
v/c Ratio	0.63	0.21			0.78			0.24			0.81	
Uniform Delay, d1	25.4	22.6			26.6			7.2			12.0	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	7.4	0.2			9.3			0.0			3.8	
Delay (s)	32.8	22.9			35.9			7.3			15.8	
Level of Service	C	C			D			A			B	
Approach Delay (s/veh)		27.9			35.9			7.3			15.8	
Approach LOS		C			D			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			18.4									
HCM 2000 Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			75.4									
Intersection Capacity Utilization			83.4%									
Analysis Period (min)			15									
c Critical Lane Group												

Timings

Existing 2024 AM Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/19/2024



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	103	65	72	151	447	257	741
Future Volume (vph)	103	65	72	151	447	257	741
Turn Type	Perm	NA	Perm	NA	NA	pm+pt	NA
Protected Phases		4		8	2	1	6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	27.0	27.0	27.0	27.0	51.0	12.0	63.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	56.7%	13.3%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0
Lead/Lag					Lag	Lead	
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 76

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road



HCM 7th TWSC
6: Old Albany Post Road & Shady Lane Farm Road

Existing 2024 AM Peak Hour
06/19/2024

Intersection						
Int Delay, s/veh	4.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	120	29	76	8	1	132
Future Vol, veh/h	120	29	76	8	1	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-12	-	4	-	-	-10
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	17	17	0	0	13
Mvmt Flow	140	34	88	9	1	153

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	249	93	0	0	98
Stage 1	93	-	-	-	-
Stage 2	156	-	-	-	-
Critical Hdwy	4.08	5.17	-	-	4.1
Critical Hdwy Stg 1	3.08	-	-	-	-
Critical Hdwy Stg 2	3.08	-	-	-	-
Follow-up Hdwy	3.572	3.453	-	-	2.2
Pot Cap-1 Maneuver	858	953	-	-	1508
Stage 1	974	-	-	-	-
Stage 2	952	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	857	953	-	-	1508
Mov Cap-2 Maneuver	857	-	-	-	-
Stage 1	974	-	-	-	-
Stage 2	951	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v10.13		0	0.06
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	874	14
HCM Lane V/C Ratio	-	-	0.198	0.001
HCM Control Delay (s/veh)	-	-	10.1	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0

HCM 7th TWSC
8: Shady Lane Farm Road & NY 9A WB Off-Ramp

Existing 2024 AM Peak Hour
06/19/2024

Intersection						
Int Delay, s/veh	8.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	143	9	9	0	0	6
Future Vol, veh/h	143	9	9	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-4	-	12	-	-	-12
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	10	0	0	0	0	0
Mvmt Flow	164	10	10	0	0	7

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	17	10	0
Stage 1	10	-	-
Stage 2	7	-	-
Critical Hdwy	5.7	5.8	-
Critical Hdwy Stg 1	4.7	-	-
Critical Hdwy Stg 2	4.7	-	-
Follow-up Hdwy	3.59	3.3	-
Pot Cap-1 Maneuver	984	1078	-
Stage 1	994	-	-
Stage 2	997	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	984	1078	-
Mov Cap-2 Maneuver	984	-	-
Stage 1	994	-	-
Stage 2	997	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.42	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 989	-
HCM Lane V/C Ratio	- 0.177	-
HCM Control Delay (s/veh)	- 9.4	-
HCM Lane LOS	- A	-
HCM 95th %tile Q(veh)	- 0.6	-

HCM Signalized Intersection Capacity Analysis

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

Existing 2024 PM Peak Hour

06/19/2024

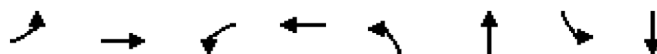
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	6	16	85	41	122	1	797	0	107	566	25
Future Volume (vph)	41	6	16	85	41	122	1	797	0	107	566	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	11	12	12	12	12
Grade (%)		-2%			-3%			-2%			5%	
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.88			0.93			1.00			0.99	
Flt Protected	0.95	1.00			0.98			0.99			0.99	
Satd. Flow (prot)	1787	1706			1954			3389			3345	
Flt Permitted	0.60	1.00			0.87			0.95			0.70	
Satd. Flow (perm)	1141	1706			1744			3234			2383	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	44	6	17	90	44	130	1	848	0	114	602	27
RTOR Reduction (vph)	0	13	0	0	39	0	0	0	0	0	4	0
Lane Group Flow (vph)	44	10	0	0	225	0	0	849	0	0	739	0
Heavy Vehicles (%)	2%	0%	0%	5%	0%	2%	0%	4%	0%	3%	4%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	11.8	11.8			11.8			25.1			25.1	
Effective Green, g (s)	11.8	11.8			11.8			25.1			25.1	
Actuated g/C Ratio	0.24	0.24			0.24			0.51			0.51	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	275	411			420			1659			1223	
v/s Ratio Prot		0.01										
v/s Ratio Perm	0.04				c0.13			0.26			c0.31	
v/c Ratio	0.16	0.02			0.53			0.51			0.60	
Uniform Delay, d1	14.6	14.1			16.1			7.8			8.3	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.2	0.0			1.3			0.2			0.8	
Delay (s)	14.9	14.1			17.4			8.1			9.2	
Level of Service	B	B			B			A			A	
Approach Delay (s/veh)		14.6			17.4			8.1			9.2	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.1									
HCM 2000 Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			48.9									
Intersection Capacity Utilization			77.6%									
Analysis Period (min)			15									
c Critical Lane Group												

Timings

Existing 2024 PM Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/19/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	41	6	85	41	1	797	107	566
Future Volume (vph)	41	6	85	41	1	797	107	566
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	27.0	27.0	27.0	27.0	51.0	51.0	12.0	63.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	56.7%	56.7%	13.3%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0		6.0		6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 49.4

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road



HCM 7th TWSC
6: Old Albany Post Road & Shady Lane Farm Road

Existing 2024 PM Peak Hour
06/24/2024

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	79	41	94	0	0	100
Future Vol, veh/h	79	41	94	0	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-12	-	4	-	-	-10
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	4	8	2	0	0	1
Mvmt Flow	87	45	103	0	0	110

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	213	103	0
Stage 1	103	-	-
Stage 2	110	-	-
Critical Hdwy	4.04	5.08	-
Critical Hdwy Stg 1	3.04	-	-
Critical Hdwy Stg 2	3.04	-	-
Follow-up Hdwy	3.536	3.372	-
Pot Cap-1 Maneuver	888	968	-
Stage 1	981	-	-
Stage 2	979	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	888	968	-
Mov Cap-2 Maneuver	888	-	-
Stage 1	981	-	-
Stage 2	979	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	914	1501
HCM Lane V/C Ratio	-	-	0.144	-
HCM Control Delay (s/veh)	-	-	9.6	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0

HCM 7th TWSC
8: Shady Lane Farm Road & NY 9A WB Off-Ramp

Existing 2024 PM Peak Hour
06/24/2024

Intersection						
Int Delay, s/veh	8.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	112	2	1	0	0	8
Future Vol, veh/h	112	2	1	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-4	-	12	-	-	-12
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	9	0	0	0	0	0
Mvmt Flow	120	2	1	0	0	9

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	10	1	0
Stage 1	1	-	-
Stage 2	9	-	-
Critical Hdwy	5.69	5.8	-
Critical Hdwy Stg 1	4.69	-	-
Critical Hdwy Stg 2	4.69	-	-
Follow-up Hdwy	3.581	3.3	-
Pot Cap-1 Maneuver	995	1090	-
Stage 1	1004	-	0
Stage 2	998	-	0
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	995	1090	-
Mov Cap-2 Maneuver	995	-	-
Stage 1	1004	-	-
Stage 2	998	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.12	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 996	-
HCM Lane V/C Ratio	- 0.123	-
HCM Control Delay (s/veh)	- 9.1	-
HCM Lane LOS	- A	-
HCM 95th %tile Q(veh)	- 0.4	-

HCM Signalized Intersection Capacity Analysis

Existing 2024 Saturday Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/19/2024

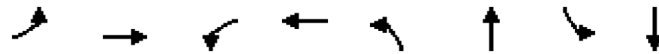
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	2	10	87	33	131	3	550	1	103	495	27
Future Volume (vph)	27	2	10	87	33	131	3	550	1	103	495	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	11	12	12	12	12
Grade (%)		-2%			-3%			-2%			5%	
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.87			0.92			0.99			0.99	
Flt Protected	0.95	1.00			0.98			0.99			0.99	
Satd. Flow (prot)	1823	1679			1972			3421			3414	
Flt Permitted	0.66	1.00			0.87			0.95			0.76	
Satd. Flow (perm)	1284	1679			1765			3255			2640	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	28	2	10	90	34	135	3	567	1	106	510	28
RTOR Reduction (vph)	0	7	0	0	43	0	0	0	0	0	5	0
Lane Group Flow (vph)	28	5	0	0	216	0	0	571	0	0	639	0
Heavy Vehicles (%)	0%	0%	0%	1%	3%	1%	0%	3%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	10.3	10.3			10.3			18.3			18.3	
Effective Green, g (s)	10.3	10.3			10.3			18.3			18.3	
Actuated g/C Ratio	0.25	0.25			0.25			0.45			0.45	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	325	425			447			1467			1189	
v/s Ratio Prot		0.00										
v/s Ratio Perm	0.02				c0.12			0.18			c0.24	
v/c Ratio	0.08	0.01			0.48			0.38			0.53	
Uniform Delay, d1	11.5	11.3			12.8			7.4			8.0	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.0			0.8			0.1			0.4	
Delay (s)	11.6	11.3			13.7			7.5			8.5	
Level of Service	B	B			B			A			A	
Approach Delay (s/veh)		11.5			13.7			7.5			8.5	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			9.2									
HCM 2000 Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			40.6									
Intersection Capacity Utilization			69.1%									
Analysis Period (min)			15									
c Critical Lane Group												

Timings

Existing 2024 Saturday Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/19/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	2	87	33	3	550	103	495
Future Volume (vph)	27	2	87	33	3	550	103	495
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	27.0	27.0	27.0	27.0	51.0	51.0	12.0	63.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	56.7%	56.7%	13.3%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0		6.0		6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 40.9

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

	Ø1		Ø2		Ø4
12 s		51 s			27 s
	Ø6				Ø8
63 s					27 s

HCM 7th TWSC
6: Old Albany Post Road & Shady Lane Farm Road

Existing 2024 Saturday Peak Hour
06/19/2024

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	77	24	76	3	0	105
Future Vol, veh/h	77	24	76	3	0	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-12	-	4	-	-	-10
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	0	3	0	0	0
Mvmt Flow	86	27	84	3	0	117

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	203	86	0	0	88	0
Stage 1	86	-	-	-	-	-
Stage 2	117	-	-	-	-	-
Critical Hdwy	4.03	5	-	-	4.1	-
Critical Hdwy Stg 1	3.03	-	-	-	-	-
Critical Hdwy Stg 2	3.03	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	897	1007	-	-	1521	-
Stage 1	990	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	897	1007	-	-	1521	-
Mov Cap-2 Maneuver	897	-	-	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	979	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.45	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	921	1521
HCM Lane V/C Ratio	-	-	0.122	-
HCM Control Delay (s/veh)	-	-	9.5	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 7th TWSC
8: Shady Lane Farm Road & NY 9A WB Off-Ramp

Existing 2024 Saturday Peak Hour

06/24/2024

Intersection						
Int Delay, s/veh	8.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	101	0	3	0	0	0
Future Vol, veh/h	101	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-4	-	12	-	-	-12
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	126	0	4	0	0	0
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	5	4	0	-	-	-
Stage 1	4	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	5.62	5.8	-	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	-	-	-	-
Pot Cap-1 Maneuver	1018	1086	-	0	0	-
Stage 1	1020	-	-	0	0	-
Stage 2	1022	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	1018	1086	-	-	-	-
Mov Cap-2 Maneuver	1018	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v	9.04	0	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBTWBLn1		SBT			
Capacity (veh/h)	- 1018		-			
HCM Lane V/C Ratio	- 0.124		-			
HCM Control Delay (s/veh)	- 9		-			
HCM Lane LOS	- A		-			
HCM 95th %tile Q(veh)	- 0.4		-			

HCM Signalized Intersection Capacity Analysis

Forecasted 2025 No-Build AM Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024

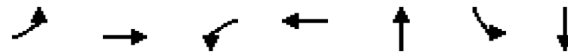
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	66	37	75	153	116	0	451	6	272	748	93
Future Volume (vph)	104	66	37	75	153	116	0	451	6	272	748	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	11	12	12	12	12
Grade (%)		-2%			-3%			-2%			5%	
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.94			0.95			0.99			0.98	
Flt Protected	0.95	1.00			0.98			1.00			0.98	
Satd. Flow (prot)	1657	1641			1897			3231			3246	
Flt Permitted	0.38	1.00			0.89			1.00			0.71	
Satd. Flow (perm)	671	1641			1714			3231			2340	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	111	70	39	80	163	123	0	480	6	289	796	99
RTOR Reduction (vph)	0	22	0	0	20	0	0	1	0	0	8	0
Lane Group Flow (vph)	111	87	0	0	346	0	0	485	0	0	1176	0
Heavy Vehicles (%)	10%	6%	19%	4%	11%	9%	0%	9%	0%	2%	7%	7%
Turn Type	Perm	NA		Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8						6		
Actuated Green, G (s)	19.1	19.1			19.1			46.8			46.8	
Effective Green, g (s)	19.1	19.1			19.1			46.8			46.8	
Actuated g/C Ratio	0.25	0.25			0.25			0.60			0.60	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	164	402			420			1941			1405	
v/s Ratio Prot		0.05						0.15				
v/s Ratio Perm	0.17				c0.20						c0.50	
v/c Ratio	0.67	0.21			0.82			0.24			0.83	
Uniform Delay, d1	26.6	23.4			27.8			7.3			12.4	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	10.5	0.2			12.4			0.0			4.5	
Delay (s)	37.1	23.7			40.2			7.3			16.9	
Level of Service	D	C			D			A			B	
Approach Delay (s/veh)		30.4			40.2			7.3			16.9	
Approach LOS		C			D			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			20.0									
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			77.9									
Intersection Capacity Utilization			85.1%									
Analysis Period (min)			15									
c Critical Lane Group												

Timings

Forecasted 2025 No-Build AM Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	104	66	75	153	451	272	748
Future Volume (vph)	104	66	75	153	451	272	748
Turn Type	Perm	NA	Perm	NA	NA	pm+pt	NA
Protected Phases		4		8	2	1	6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	27.0	27.0	27.0	27.0	51.0	12.0	63.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	56.7%	13.3%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0
Lead/Lag					Lag	Lead	
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 78.3

Natural Cycle: 65

Control Type: Semi Act-Uncoord

Splits and Phases: 3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

	Ø1		Ø2		Ø4
12 s		51 s			27 s
	Ø6				Ø8
63 s					27 s

HCM 7th TWSC
6: Old Albany Post Road & Shady Lane Farm Road

Forecasted 2025 No-Build AM Peak Hour
06/24/2024

Intersection						
Int Delay, s/veh	4.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	123	37	91	11	1	143
Future Vol, veh/h	123	37	91	11	1	143
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-12	-	4	-	-	-10
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	17	17	0	0	13
Mvmt Flow	143	43	106	13	1	166

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	281	112	0
Stage 1	112	-	-
Stage 2	169	-	-
Critical Hdwy	4.08	5.17	-
Critical Hdwy Stg 1	3.08	-	-
Critical Hdwy Stg 2	3.08	-	-
Follow-up Hdwy	3.572	3.453	-
Pot Cap-1 Maneuver	840	936	-
Stage 1	967	-	-
Stage 2	947	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	839	936	-
Mov Cap-2 Maneuver	839	-	-
Stage 1	967	-	-
Stage 2	947	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v10.34		0	0.05
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	860	13
HCM Lane V/C Ratio	-	-	0.216	0.001
HCM Control Delay (s/veh)	-	-	10.3	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

HCM 7th TWSC
8: Shady Lane Farm Road & NY 9A WB Off-Ramp

Forecasted 2025 No-Build AM Peak Hour
06/24/2024

Intersection						
Int Delay, s/veh	8.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑			↑
Traffic Vol, veh/h	152	13	13	0	0	9
Future Vol, veh/h	152	13	13	0	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-4	-	12	-	-	-12
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	10	0	0	0	0	0
Mvmt Flow	175	15	15	0	0	10

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	25	15	0	-	-	-
Stage 1	15	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	5.7	5.8	-	-	-	-
Critical Hdwy Stg 1	4.7	-	-	-	-	-
Critical Hdwy Stg 2	4.7	-	-	-	-	-
Follow-up Hdwy	3.59	3.3	-	-	-	-
Pot Cap-1 Maneuver	976	1072	-	0	0	-
Stage 1	991	-	-	0	0	-
Stage 2	994	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	976	1072	-	-	-	-
Mov Cap-2 Maneuver	976	-	-	-	-	-
Stage 1	991	-	-	-	-	-
Stage 2	994	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.54	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 983	-
HCM Lane V/C Ratio	- 0.193	-
HCM Control Delay (s/veh)	- 9.5	-
HCM Lane LOS	- A	-
HCM 95th %tile Q(veh)	- 0.7	-

HCM Signalized Intersection Capacity Analysis

Forecasted 2025 No-Build PM Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024

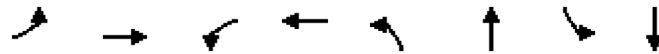
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	6	16	91	41	151	1	805	1	119	572	25
Future Volume (vph)	41	6	16	91	41	151	1	805	1	119	572	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	11	12	12	12	12
Grade (%)		-2%			-3%			-2%				5%
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.88			0.92			0.99			0.99	
Flt Protected	0.95	1.00			0.98			0.99			0.99	
Satd. Flow (prot)	1787	1706			1944			3389			3344	
Flt Permitted	0.54	1.00			0.88			0.95			0.67	
Satd. Flow (perm)	1033	1706			1746			3234			2265	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	44	6	17	97	44	161	1	856	1	127	609	27
RTOR Reduction (vph)	0	13	0	0	45	0	0	0	0	0	4	0
Lane Group Flow (vph)	44	10	0	0	257	0	0	858	0	0	759	0
Heavy Vehicles (%)	2%	0%	0%	5%	0%	2%	0%	4%	0%	3%	4%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	13.1	13.1			13.1			26.9			26.9	
Effective Green, g (s)	13.1	13.1			13.1			26.9			26.9	
Actuated g/C Ratio	0.25	0.25			0.25			0.52			0.52	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	260	429			439			1672			1171	
v/s Ratio Prot		0.01										
v/s Ratio Perm	0.04				c0.15			0.27			c0.34	
v/c Ratio	0.16	0.02			0.58			0.51			0.64	
Uniform Delay, d1	15.1	14.6			17.0			8.2			9.1	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.3	0.0			1.9			0.2			1.2	
Delay (s)	15.5	14.6			19.0			8.5			10.3	
Level of Service	B	B			B			A			B	
Approach Delay (s/veh)		15.2			19.0			8.5			10.3	
Approach LOS		B			B			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			11.0									
HCM 2000 Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			52.0									
Intersection Capacity Utilization			80.5%									
Analysis Period (min)			15									
c Critical Lane Group												

Timings

Forecasted 2025 No-Build PM Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	41	6	91	41	1	805	119	572
Future Volume (vph)	41	6	91	41	1	805	119	572
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	27.0	27.0	27.0	27.0	51.0	51.0	12.0	63.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	56.7%	56.7%	13.3%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0		6.0		6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 52.7

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

	Ø1		Ø2		Ø4
12 s		51 s			27 s
	Ø6				Ø8
63 s					27 s

HCM 7th TWSC
6: Old Albany Post Road & Shady Lane Farm Road

Forecasted 2025 No-Build PM Peak Hour

06/24/2024

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	91	51	110	0	0	123
Future Vol, veh/h	91	51	110	0	0	123
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-12	-	4	-	-	-10
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	4	8	2	0	0	1
Mvmt Flow	100	56	121	0	0	135

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	256	121	0	0	121	0
Stage 1	121	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	4.04	5.08	-	-	4.1	-
Critical Hdwy Stg 1	3.04	-	-	-	-	-
Critical Hdwy Stg 2	3.04	-	-	-	-	-
Follow-up Hdwy	3.536	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	864	952	-	-	1479	-
Stage 1	975	-	-	-	-	-
Stage 2	970	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	864	952	-	-	1479	-
Mov Cap-2 Maneuver	864	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	970	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.88	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	894	1479
HCM Lane V/C Ratio	-	-	0.175	-
HCM Control Delay (s/veh)	-	-	9.9	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0

HCM 7th TWSC
8: Shady Lane Farm Road & NY 9A WB Off-Ramp

Forecasted 2025 No-Build PM Peak Hour

06/24/2024

Intersection						
Int Delay, s/veh	7.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	121	5	1	0	0	21
Future Vol, veh/h	121	5	1	0	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-4	-	12	-	-	-12
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	9	0	0	0	0	0
Mvmt Flow	130	5	1	0	0	23

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	24	1	0	-	-	-
Stage 1	1	-	-	-	-	-
Stage 2	23	-	-	-	-	-
Critical Hdwy	5.69	5.8	-	-	-	-
Critical Hdwy Stg 1	4.69	-	-	-	-	-
Critical Hdwy Stg 2	4.69	-	-	-	-	-
Follow-up Hdwy	3.581	3.3	-	-	-	-
Pot Cap-1 Maneuver	980	1090	-	0	0	-
Stage 1	1004	-	-	0	0	-
Stage 2	987	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	980	1090	-	-	-	-
Mov Cap-2 Maneuver	980	-	-	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	987	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.24	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 984	-
HCM Lane V/C Ratio	- 0.138	-
HCM Control Delay (s/veh)	- 9.2	-
HCM Lane LOS	- A	-
HCM 95th %tile Q(veh)	- 0.5	-

HCM Signalized Intersection Capacity Analysis Forecasted 2025 No-Build Saturday Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024

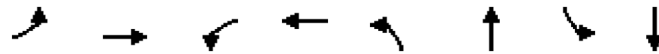
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	2	10	90	33	146	3	556	2	117	500	27
Future Volume (vph)	27	2	10	90	33	146	3	556	2	117	500	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	11	12	12	12	12
Grade (%)		-2%			-3%			-2%			5%	
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.87			0.92			0.99			0.99	
Flt Protected	0.95	1.00			0.98			0.99			0.99	
Satd. Flow (prot)	1823	1679			1968			3420			3413	
Flt Permitted	0.63	1.00			0.88			0.95			0.74	
Satd. Flow (perm)	1216	1679			1768			3255			2563	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	28	2	10	93	34	151	3	573	2	121	515	28
RTOR Reduction (vph)	0	7	0	0	46	0	0	1	0	0	5	0
Lane Group Flow (vph)	28	5	0	0	232	0	0	577	0	0	659	0
Heavy Vehicles (%)	0%	0%	0%	1%	3%	1%	0%	3%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	10.8	10.8			10.8			19.3			19.3	
Effective Green, g (s)	10.8	10.8			10.8			19.3			19.3	
Actuated g/C Ratio	0.26	0.26			0.26			0.46			0.46	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	311	430			453			1492			1174	
v/s Ratio Prot		0.00										
v/s Ratio Perm	0.02				c0.13			0.18			c0.26	
v/c Ratio	0.09	0.01			0.51			0.38			0.56	
Uniform Delay, d1	11.9	11.6			13.3			7.5			8.3	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.0			0.9			0.1			0.6	
Delay (s)	12.0	11.6			14.3			7.6			8.9	
Level of Service	B	B			B			A			A	
Approach Delay (s/veh)		11.9			14.3			7.6			8.9	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			9.5									
HCM 2000 Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			42.1									
Intersection Capacity Utilization			70.9%									
Analysis Period (min)			15									
c Critical Lane Group												

Timings

Forecasted 2025 No-Build Saturday Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	2	90	33	3	556	117	500
Future Volume (vph)	27	2	90	33	3	556	117	500
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	27.0	27.0	27.0	27.0	51.0	51.0	12.0	63.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	56.7%	56.7%	13.3%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0		6.0		6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 42.5

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

	Ø1		Ø2		Ø4
12 s		51 s			27 s
	Ø6				Ø8
63 s					27 s

Intersection

Int Delay, s/veh 3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	78	32	91	6	0	122
Future Vol, veh/h	78	32	91	6	0	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-12	-	4	-	-	-10
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	0	3	0	0	0
Mvmt Flow	87	36	101	7	0	136

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	240	104	0
Stage 1	104	-	-
Stage 2	136	-	-
Critical Hdwy	4.03	5	-
Critical Hdwy Stg 1	3.03	-	-
Critical Hdwy Stg 2	3.03	-	-
Follow-up Hdwy	3.527	3.3	-
Pot Cap-1 Maneuver	876	989	-
Stage 1	983	-	-
Stage 2	972	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	876	989	-
Mov Cap-2 Maneuver	876	-	-
Stage 1	983	-	-
Stage 2	972	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.59	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	906	1496
HCM Lane V/C Ratio	-	-	0.135	-
HCM Control Delay (s/veh)	-	-	9.6	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0

Intersection

Int Delay, s/veh 8.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	109	0	6	0	0	0
Future Vol, veh/h	109	0	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-4	-	12	-	-	-12
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	136	0	8	0	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	9	8	0
Stage 1	8	-	-
Stage 2	1	-	-
Critical Hdwy	5.62	5.8	-
Critical Hdwy Stg 1	4.62	-	-
Critical Hdwy Stg 2	4.62	-	-
Follow-up Hdwy	3.518	3.3	-
Pot Cap-1 Maneuver	1014	1082	-
Stage 1	1017	-	-
Stage 2	1022	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1014	1082	-
Mov Cap-2 Maneuver	1014	-	-
Stage 1	1017	-	-
Stage 2	1022	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 1014	-
HCM Lane V/C Ratio	- 0.134	-
HCM Control Delay (s/veh)	- 9.1	-
HCM Lane LOS	- A	-
HCM 95th %tile Q(veh)	- 0.5	-

HCM Signalized Intersection Capacity Analysis

Forecasted 2025 Build AM Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024

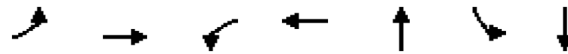
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	66	37	83	153	156	0	451	7	299	748	93
Future Volume (vph)	104	66	37	83	153	156	0	451	7	299	748	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	11	12	12	12	12
Grade (%)		-2%			-3%			-2%			5%	
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.94			0.94			0.99			0.98	
Flt Protected	0.95	1.00			0.98			1.00			0.98	
Satd. Flow (prot)	1657	1641			1882			3230			3247	
Flt Permitted	0.34	1.00			0.89			1.00			0.70	
Satd. Flow (perm)	607	1641			1706			3230			2310	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	111	70	39	88	163	166	0	480	7	318	796	99
RTOR Reduction (vph)	0	21	0	0	26	0	0	1	0	0	8	0
Lane Group Flow (vph)	111	88	0	0	391	0	0	486	0	0	1205	0
Heavy Vehicles (%)	10%	6%	19%	4%	11%	9%	0%	9%	0%	2%	7%	7%
Turn Type	Perm	NA		Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8						6		
Actuated Green, G (s)	21.3	21.3			21.3			49.0			49.0	
Effective Green, g (s)	21.3	21.3			21.3			49.0			49.0	
Actuated g/C Ratio	0.26	0.26			0.26			0.60			0.60	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	157	424			441			1923			1375	
v/s Ratio Prot		0.05						0.15				
v/s Ratio Perm	0.18				c0.23						c0.52	
v/c Ratio	0.70	0.20			0.88			0.25			0.87	
Uniform Delay, d1	27.6	23.8			29.3			7.9			14.0	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	13.5	0.2			18.8			0.0			6.5	
Delay (s)	41.2	24.1			48.1			8.0			20.6	
Level of Service	D	C			D			A			C	
Approach Delay (s/veh)		32.7			48.1			8.0			20.6	
Approach LOS		C			D			A			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		24.1			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.90										
Actuated Cycle Length (s)		82.3			Sum of lost time (s)			14.0				
Intersection Capacity Utilization		88.9%			ICU Level of Service			E				
Analysis Period (min)		15										
c Critical Lane Group												

Timings

Forecasted 2025 Build AM Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	104	66	83	153	451	299	748
Future Volume (vph)	104	66	83	153	451	299	748
Turn Type	Perm	NA	Perm	NA	NA	pm+pt	NA
Protected Phases		4		8	2	1	6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	27.0	27.0	27.0	27.0	51.0	12.0	63.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	56.7%	13.3%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0
Lead/Lag					Lag	Lead	
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 82.5

Natural Cycle: 70

Control Type: Semi Act-Uncoord

Splits and Phases: 3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road



HCM 7th TWSC
6: Old Albany Post Road & Shady Lane Farm Road

Forecasted 2025 Build AM Peak Hour
06/24/2024

Intersection						
Int Delay, s/veh	4.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	171	42	91	47	7	143
Future Vol, veh/h	171	42	91	47	7	143
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-12	-	4	-	-	-10
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	17	17	0	0	13
Mvmt Flow	199	49	106	55	8	166

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	316	133	0
Stage 1	133	-	-
Stage 2	183	-	-
Critical Hdwy	4.08	5.17	-
Critical Hdwy Stg 1	3.08	-	-
Critical Hdwy Stg 2	3.08	-	-
Follow-up Hdwy	3.572	3.453	-
Pot Cap-1 Maneuver	821	917	-
Stage 1	960	-	-
Stage 2	943	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	816	917	-
Mov Cap-2 Maneuver	816	-	-
Stage 1	960	-	-
Stage 2	937	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.13	0	0.35
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	834	84
HCM Lane V/C Ratio	-	-	0.297	0.006
HCM Control Delay (s/veh)	-	-	11.1	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.2	0

HCM 7th TWSC
8: Shady Lane Farm Road & NY 9A WB Off-Ramp

Forecasted 2025 Build AM Peak Hour

06/24/2024

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	152	23	54	0	0	61
Future Vol, veh/h	152	23	54	0	0	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-4	-	12	-	-	-12
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	10	0	0	0	0	0
Mvmt Flow	175	26	62	0	0	70

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	132	62	0	-	-	-
Stage 1	62	-	-	-	-	-
Stage 2	70	-	-	-	-	-
Critical Hdwy	5.7	5.8	-	-	-	-
Critical Hdwy Stg 1	4.7	-	-	-	-	-
Critical Hdwy Stg 2	4.7	-	-	-	-	-
Follow-up Hdwy	3.59	3.3	-	-	-	-
Pot Cap-1 Maneuver	868	1015	-	0	0	-
Stage 1	954	-	-	0	0	-
Stage 2	947	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	868	1015	-	-	-	-
Mov Cap-2 Maneuver	868	-	-	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v10.26		0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 885	-
HCM Lane V/C Ratio	- 0.227	-
HCM Control Delay (s/veh)	- 10.3	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 0.9	-

HCM Signalized Intersection Capacity Analysis

Forecasted 2025 Build PM Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024

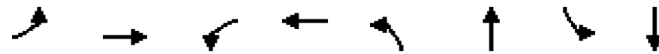
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	6	16	101	41	201	1	805	3	159	572	25
Future Volume (vph)	41	6	16	101	41	201	1	805	3	159	572	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	11	12	12	12	12
Grade (%)		-2%			-3%			-2%			5%	
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.88			0.92			0.99			0.99	
Flt Protected	0.95	1.00			0.98			0.99			0.98	
Satd. Flow (prot)	1787	1706			1933			3388			3339	
Flt Permitted	0.46	1.00			0.89			0.95			0.61	
Satd. Flow (perm)	871	1706			1751			3233			2076	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	44	6	17	107	44	214	1	856	3	169	609	27
RTOR Reduction (vph)	0	13	0	0	54	0	0	0	0	0	3	0
Lane Group Flow (vph)	44	10	0	0	311	0	0	860	0	0	802	0
Heavy Vehicles (%)	2%	0%	0%	5%	0%	2%	0%	4%	0%	3%	4%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0			16.0			32.5			32.5	
Effective Green, g (s)	16.0	16.0			16.0			32.5			32.5	
Actuated g/C Ratio	0.26	0.26			0.26			0.54			0.54	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	230	451			463			1736			1115	
v/s Ratio Prot		0.01										
v/s Ratio Perm	0.05				c0.18			0.27			c0.39	
v/c Ratio	0.19	0.02			0.67			0.49			0.71	
Uniform Delay, d1	17.2	16.4			19.8			8.8			10.5	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.4	0.0			3.7			0.2			2.2	
Delay (s)	17.6	16.4			23.6			9.0			12.8	
Level of Service	B	B			C			A			B	
Approach Delay (s/veh)		17.2			23.6			9.0			12.8	
Approach LOS		B			C			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		13.3			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.73										
Actuated Cycle Length (s)		60.5			Sum of lost time (s)			14.0				
Intersection Capacity Utilization		85.4%			ICU Level of Service			E				
Analysis Period (min)		15										
c Critical Lane Group												

Timings

Forecasted 2025 Build PM Peak Hour

3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	41	6	101	41	1	805	159	572
Future Volume (vph)	41	6	101	41	1	805	159	572
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	27.0	27.0	27.0	27.0	51.0	51.0	12.0	63.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	56.7%	56.7%	13.3%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0		6.0		6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 61.4

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 3: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

	Ø1		Ø2		Ø4
12 s		51 s			27 s
	Ø6				Ø8
63 s					27 s

HCM 7th TWSC
6: Old Albany Post Road & Shady Lane Farm Road

Forecasted 2025 Build PM Peak Hour
06/24/2024

Intersection						
Int Delay, s/veh	4.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	151	57	110	54	9	123
Future Vol, veh/h	151	57	110	54	9	123
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-12	-	4	-	-	-10
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	4	8	2	0	0	1
Mvmt Flow	166	63	121	59	10	135

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	305	151	0	0	180	0
Stage 1	151	-	-	-	-	-
Stage 2	155	-	-	-	-	-
Critical Hdwy	4.04	5.08	-	-	4.1	-
Critical Hdwy Stg 1	3.04	-	-	-	-	-
Critical Hdwy Stg 2	3.04	-	-	-	-	-
Follow-up Hdwy	3.536	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	836	926	-	-	1407	-
Stage 1	964	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	830	926	-	-	1407	-
Mov Cap-2 Maneuver	830	-	-	-	-	-
Stage 1	964	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v10.75		0	0.52
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	854	123
HCM Lane V/C Ratio	-	-	0.268	0.007
HCM Control Delay (s/veh)	-	-	10.7	7.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.1	0

HCM 7th TWSC
8: Shady Lane Farm Road & NY 9A WB Off-Ramp

Forecasted 2025 Build PM Peak Hour
06/24/2024

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	121	27	63	0	0	87
Future Vol, veh/h	121	27	63	0	0	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-4	-	12	-	-	-12
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	9	0	0	0	0	0
Mvmt Flow	130	29	68	0	0	94

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	161	68	0	-	-	-
Stage 1	68	-	-	-	-	-
Stage 2	94	-	-	-	-	-
Critical Hdwy	5.69	5.8	-	-	-	-
Critical Hdwy Stg 1	4.69	-	-	-	-	-
Critical Hdwy Stg 2	4.69	-	-	-	-	-
Follow-up Hdwy	3.581	3.3	-	-	-	-
Pot Cap-1 Maneuver	843	1009	-	0	0	-
Stage 1	952	-	-	0	0	-
Stage 2	932	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	843	1009	-	-	-	-
Mov Cap-2 Maneuver	843	-	-	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	932	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v10.07		0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 869	-
HCM Lane V/C Ratio	- 0.183	-
HCM Control Delay (s/veh)	- 10.1	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 0.7	-

HCM Signalized Intersection Capacity Analysis

Forecasted 2025 Build Saturday Peak Hour

1: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024

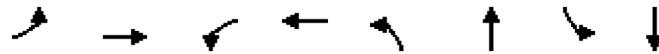
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	2	10	104	33	217	3	556	4	167	500	27
Future Volume (vph)	27	2	10	104	33	217	3	556	4	167	500	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	11	12	12	12	12
Grade (%)		-2%			-3%			-2%			5%	
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.87			0.91			0.99			0.99	
Flt Protected	0.95	1.00			0.98			0.99			0.98	
Satd. Flow (prot)	1823	1679			1952			3419			3408	
Flt Permitted	0.51	1.00			0.89			0.95			0.70	
Satd. Flow (perm)	980	1679			1776			3254			2418	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	28	2	10	107	34	224	3	573	4	172	515	28
RTOR Reduction (vph)	0	7	0	0	59	0	0	1	0	0	5	0
Lane Group Flow (vph)	28	5	0	0	306	0	0	579	0	0	710	0
Heavy Vehicles (%)	0%	0%	0%	1%	3%	1%	0%	3%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	14.0	14.0			14.0			23.1			23.1	
Effective Green, g (s)	14.0	14.0			14.0			23.1			23.1	
Actuated g/C Ratio	0.29	0.29			0.29			0.47			0.47	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	279	478			506			1530			1137	
v/s Ratio Prot		0.00										
v/s Ratio Perm	0.03				c0.17			0.18			c0.29	
v/c Ratio	0.10	0.01			0.60			0.37			0.62	
Uniform Delay, d1	12.9	12.5			15.1			8.3			9.7	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.0			2.0			0.1			1.0	
Delay (s)	13.0	12.5			17.1			8.5			10.8	
Level of Service	B	B			B			A			B	
Approach Delay (s/veh)		12.9			17.1			8.5			10.8	
Approach LOS		B			B			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			11.5									
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			49.1									
Intersection Capacity Utilization			77.6%									
Analysis Period (min)			15									
c Critical Lane Group												

Timings

Forecasted 2025 Build Saturday Peak Hour

1: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

06/24/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	2	104	33	3	556	167	500
Future Volume (vph)	27	2	104	33	3	556	167	500
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	27.0	27.0	27.0	27.0	51.0	51.0	12.0	63.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	56.7%	56.7%	13.3%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0		6.0		6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 49.8

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 1: Albany Post Road (US 9) & Mystic Drive/Old Albany Post Road

	Ø1		Ø2		Ø4
12 s		51 s			27 s
	Ø6				Ø8
63 s					27 s

Intersection

Int Delay, s/veh 4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	163	42	91	72	13	122
Future Vol, veh/h	163	42	91	72	13	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-12	-	4	-	-	-10
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	0	3	0	0	0
Mvmt Flow	181	47	101	80	14	136

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	306	141	0
Stage 1	141	-	-
Stage 2	164	-	-
Critical Hdwy	4.03	5	-
Critical Hdwy Stg 1	3.03	-	-
Critical Hdwy Stg 2	3.03	-	-
Follow-up Hdwy	3.527	3.3	-
Pot Cap-1 Maneuver	839	956	-
Stage 1	970	-	-
Stage 2	962	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	830	956	-
Mov Cap-2 Maneuver	830	-	-
Stage 1	970	-	-
Stage 2	952	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v10.75		0	0.73
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	853	173
HCM Lane V/C Ratio	-	-	0.267	0.01
HCM Control Delay (s/veh)	-	-	10.8	7.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.1	0

HCM 7th TWSC
3: Shady Lane Farm Road & NY 9A WB Off-Ramp

Forecasted 2025 Build Saturday Peak Hour

06/24/2024

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑			↑
Traffic Vol, veh/h	109	36	85	0	0	95
Future Vol, veh/h	109	36	85	0	0	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-4	-	12	-	-	-12
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	136	45	106	0	0	119

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	225	106	0	-	-	-
Stage 1	106	-	-	-	-	-
Stage 2	119	-	-	-	-	-
Critical Hdwy	5.62	5.8	-	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	-	-	-	-
Pot Cap-1 Maneuver	802	965	-	0	0	-
Stage 1	940	-	-	0	0	-
Stage 2	931	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	802	965	-	-	-	-
Mov Cap-2 Maneuver	802	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v10.48		0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 837	-
HCM Lane V/C Ratio	- 0.216	-
HCM Control Delay (s/veh)	- 10.5	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 0.8	-