NELSON POPE VOORHIS

environmental • land use • planning

TRANSMITTAL FORM

TO: Central Pine Barrens
Joint Planning & Policy Commission
624 Old Riverhead Road
Westhampton Beach, NY 11978
Attn: Julie Hargrave & Judy Jakobsen

FROM: Carrie O'Farrell, AICP
DATE: November 15, 2023
PROJECT: LIPA Medford Operations Center
NPV No.: 08204
REF:

VIA:

[ ] **Regular Mail** [X] **Overnight** [ ] **Messenger** [X] **Email**

COPIES	DESCRIPTION
6	Cover letter dated 11/15/23 from N+P as response to comments from draft Staff Report dated 10/18/23 (5-Board Members, 1 file copy) (also sent via email from Ashley Marciszyn on 11/15/23)
6	Demonstration of Hardship Criteria (5-Board Member, 1 file copy)
6	Traffic Impact Study, Revised October 2023 (5-Board Member, 1 file copy)
6	Site Plan Sets from N+P, last revised 11/6/23
1	Copy of email

REMARKS:

cc:

NELSON+POPE
engineers • architects • surveyors

November 15, 2023

Ms. Julie Hargrave
The Central Pine Barrens Commission Office
624 Old Riverhead Road (CR 31)
Westhampton Beach, NY 11978

Re: LIPA Medford Operations Center
Compatible Growth Area Hardship Application
N+P No.: 08204

Dear Ms. Hargrave:

We are in receipt of the Draft Staff Report dated October 18, 2023, which included conditions and comments for discussion. We have reviewed these comments and offer the following responses:

COMMENT 1: Clarify the site ownership, is this a lease or did PSEG acquire the Project Site.

Response: *LIPA is in contract with the seller for purchase of the property. They intend to retain ownership of the property for the proposed operations center use.*

COMMENT 2: Retain the existing large, mature trees including large evergreens for screening and supplement the vegetation in this roadside area rather than removing the large trees and landscaping with small trees as a buffer.

Response: *PSEG Long Island and the project engineers reviewed the grading and parking lot configuration along the property frontage to determine if plan revisions were possible to minimize disturbance to the existing trees along the roadside area. The majority of the existing large trees in the roadside area are located on the northwest side of the existing mini-golf course, in an area that has elevated topography. The topography within the proposed parking lot area to the east of these trees is also undulating (due to the presence of the mini-golf and go kart track features). The topographic conditions are a design constraint in establishing suitable grades for the proposed parking lot. However, the plan was modified to eliminate 13 parking spaces and incorporate a retaining wall to allow for retention of 12 of the 16 existing mature trees along the property frontage (see Existing Conditions and Demolition Plan, C-102). Further reduction of parking would impact the anticipated operational needs for the facility.*

COMMENT 3: Please explain if the site plan could be modified to place the proposed buildings rather than the parking lot in the front area visible from the road.

Response: *The proposed parking lot is intended to provide employee parking for the administrative building, fleet operations and maintenance crews. PSEG Long Island protocols require that the fleet vehicle parking, maintenance, fueling, and storage areas all be fully enclosed within a secure area. Employee's personal vehicles do not need to enter the secured area, necessitating locating this parking area closer to the roadway entrance, while providing additional queuing for fleet vehicles on the internal access driveway that must enter the secured portion of the site.*

The newly proposed building will be utilized for fleet maintenance and storage. Such service uses are less desirable along the roadway, and typically would be screened from public view. Additionally, moving the proposed maintenance garage and parts building closer to the roadway would also require moving the fleet vehicle parking and storage areas closer to the street. The fleet vehicles are larger and more difficult to screen from the roadway than the employee vehicle parking lot. Additionally, there is greater maneuverability for the larger fleet vehicles in the central portion of the property to pull into/out of parking spaces, the fueling station, and the maintenance building. The western portion of the site is also constrained by the administration building (to be retained) and secondary site access, providing less area for fleet vehicle circulation. Therefore, the current layout provides important and practical operational advantages and allows for the service/heavy equipment related site operations to be setback and screened from the roadway.

COMMENT 4: **Discuss whether the site plan can be modified to eliminate the need for the additional 0.5 acres that triggers the need for a hardship on this site by building within the existing cleared area.**

Response: *An internal review of the impact of reducing the size of the proposed fueling station has concluded that based on the current and future needs of PSEG Long Island, the current site layout cannot be further minimized in this area. The proposed configuration of the fueling station was designed based on safe access, maneuverability, and appropriate turning radii for large vehicles capable of towing utility pole trailers. Fueling of these vehicles on-site is pertinent to the facility operations, as off-site service stations do not typically contain sufficient area/site maneuverability to ensure safe fueling of these vehicles.*

COMMENT 5: **Landscape Plan**

a. Lists only 28,231 square feet of existing vegetation to remain. Please clarify, other statements in the application refer to approximately 4 acres of existing natural vegetation remaining.

Response: *The 28,231 square feet of existing vegetation to remain is not inclusive of the wooded area to remain which is slated for targeted understory restoration, as illustrated on the Landscape Plan (Sheet LA-101). 134,071 square feet of existing poor quality woodland*

will be retained and will be subject to targeted understory restoration given the significant disturbance to the understory. Select invasive species will be removed and replaced with native species. All work will occur by hand, and no machinery will be utilized for this effort. In total, 162,302 square feet (3.73 acres) of existing woodland will remain.

b. Add more native oak trees and pitch pine trees to the landscaping plan.

Response: *The landscape plan was designed with the advancement of natural processes in mind. In particular, it is acknowledged that woodland restoration takes time to fully mature. Ultimately, what is initially planted is intended to provide space for a mature and healthy woodland with adequate canopy space for mature trees, and provide the most opportunity for the trees planted to succeed. As the woodland matures, it is anticipated that trees will produce seed and additional seedlings will establish, and survival of said seedlings will be dependent upon the availability of resources. Further, over densification of forested areas contributes to fuel loads, and does not result in a balanced ecosystem. Therefore, no additional trees have been added to the Landscape Plan given the considerations outlined above.*

c. **The proposal includes "understory restoration" in the natural open space area. No understory restoration should occur in the open space.**

Response: *The woodland that comprises the southeast portion of the site is of low quality as it has been significantly impacted by disturbance activities in the understory, including paintball games and storage of landscape debris. The understory restoration depicted on the Landscape Plan includes the targeted removal of large stands or individuals of invasive understory species, and replacement with native shrubs. No tree removal or sub-canopy removal will occur as part of this restorative effort. Given the severity of the impact of the previous disturbance on the woodland, understory restoration will serve to enhance the quality of the habitat which will provide overall ecosystem benefits for the natural open space areas (both existing and proposed) on the site. As a result, understory restoration is still proposed.*

d. All revegetation should be with native trees and shrubs rather than part woods and part meadow. The meadow would need regular maintenance, or it would become successional.

Response: *The Landscape Plan was purposefully designed with both the meadow area and woodland area given the proposed site improvements. In particular, green infrastructure in the form of a wet meadow is proposed in the central portion of the site in order to provide both treatment for stormwater and habitat. In order to provide a more sustainable transition to the forested portion of the site, restoration of a portion of the site with a meadow is proposed. Meadows/grasslands are the largest disappearing habitat type in the United States, and significant benefits are derived from meadow/grassland restorations, even those that are small patches. Further, PSEG Long Island has a dedicated vegetation management program that routinely mows LIPA right of ways on a four year cycle; maintenance of the meadow will not be problematic as it is a task inherent to utility maintenance. Further, should some succession of the meadow occur, no detriment to the*

open space would be realized, as succession from meadow, to shrubland, and ultimately woodland, is a natural process which would ultimately lead to a fully woodland community in the future. Overall, installation of the meadow area will only be beneficial to the property and as a result, is still currently proposed.

COMMENT 6: Clearing and grading. Prior to site disturbance:

a. Prepare draft covenants to protect open space including the revegetated area, more than 10 acres, and submit for review and approval by the Commission.

Response: *Comment acknowledged; draft covenants will be prepared and submitted to the Commission for review and approval.*

b. Prepare and submit for review draft covenants or easements to protect open space. Once approved, record and submit proof of same to the Commission prior to commencing site disturbance.

Response: *Comment acknowledged; draft covenants will be prepared and submitted to the Commission for review and approval.*

c. Install snow fencing on clearing limits prior to clearing.

Response: *The plans have been revised to include notes indicating that snow fencing shall be installed along the clearing limits prior to clearing.*

d. Coordinate the proposal and clearing with NYSDEC to protect listed species including the Northern Long-eared Bat (Endangered species) and any other listed species.

Response: *PSEG Long Island is committed to restricting tree clearing associated with the Proposed Project to the permissible clearing window between December 1 to February 28 of any given year to prevent impacts to possible Northern Long-eared Bats in the area. Coordination with NYSDEC will be conducted, as required, prior to clearing.*

e. Retain the existing large trees/buffer on the road front for screening.

Response: *The plans have been revised to minimize the impact to the exiting trees along the roadway. As noted above, the plan revisions resulted in a reduction of 13 parking spaces and incorporation of a retaining wall along the edge of the parking area to preserve 12 of the 16 existing mature trees along the roadway. Additionally, the Proposed Project includes a robust Landscape Plan including evergreens and native trees and shrubs proposed along the property frontage to screen the interior of the site from public view. The Proposed Project will provide a more natural appearance compared to the current views of the mini golf course and go kart track.*

COMMENT 7: Submit an As Built plan to monitor the open space in the future.

Response: *Comment acknowledged. An as-built plan will be submitted upon completion of construction.*

COMMENT 8: Install dark skies lighting

Response: *Comment acknowledged; the Proposed Project will utilize dark sky compliant lighting.*

COMMENT 9: Limit the proliferation of signage to one sign on the road front if possible. Submit the sign plan for review and comment prior to installation.

Response: *Comment acknowledged. A sign plan will be prepared and submitted for review prior to installation.*

COMMENT 10: Obtain all approvals and permits prior to disturbance, grading excavation, and other site work.

Response: *Comment acknowledged; all applicable permits will be obtained prior to the commencement of work.*

COMMENT 11: Additional information may be provided after the public hearing on past precedent matters involving requests to clear natural vegetation in excess of the standard and hardship waivers that have been approved and denied.

Response: *Comment acknowledged.*

COMMENT 12: Additional analyses may be necessary after the public hearing and/or receipt of any additional information. The hearing record may need to remain open to receive and review any additional information for the public record. Keep record open for a minimum of 10 days to receive supplemental information and public comments.

Response: *Comment acknowledged.*

We hope this information clarifies the rationale behind the Proposed Project design and layout, and the site constraints associated with the proposed use. If you require any additional information, please feel free to contact us.

Sincerely,
Nelson + Pope

Christopher C. Voorhis, PE
Project Manager

Demonstration of Hardship Criteria

The Proposed Project involves the conversion of the existing Country Fair commercial entertainment facility to a centralized Long Island Power Authority ("LIPA" or "Applicant") administrative office, fleet maintenance, repair and storage facility, and fleet fueling station ("Medford Operations Center") for an essential electric utility provider. The new facility is needed to provide enhanced service capabilities in central Suffolk County by consolidating operations at a centralized location proximate to several major east/west and north/south highways and arterials including NYS 112 (Medford Avenue), I-495 (the Long Island Expressway, "LIE"), CR 83 (Ocean Avenue), NYS 25 (Middle Country Road) and (NYS 27) Sunrise Highway. The Proposed Project would provide modern facilities, equipment, and site infrastructure to support growing energy infrastructure needs within the service region.

The Proposed Project has been purposefully designed to minimize impacts on the resources of the Compatible Growth Area ("CGA") to the maximum extent practicable, while meeting the public need for essential service to the energy supply and LIPA and PSEG LI objectives to better serve the increasing electrical utility needs of customers in the Town and County. More particularly, the Proposed Project will allow for improving service and responsiveness for customers including power restoration after storms, creation of temporary construction jobs, and a viable long-term use of a previously developed property. The proposed Medford Operations Center will also provide a series of environmental and energy conservation benefits for long range sustainability, and an overall environmental improvement of the property.

The Applicant seeks an exemption based upon a demonstration of hardship for development in the CGA. In making such a finding, the commission shall consider the criteria for a use variance pursuant to section two hundred sixty-seven-b of NYS Town law. These criteria are as follows:

(1) the applicant cannot realize a reasonable return, provided that lack of return is substantial as demonstrated by competent financial evidence;
(2) that the alleged hardship relating to the property in question is unique, and does not apply to a substantial portion of the district or neighborhood;
(3) that the requested use variance, if granted, will not alter the essential character of the neighborhood; and
(4) that the alleged hardship has not been self-created.

A demonstration supporting the above factors is outlined below.

(1) the applicant cannot realize a reasonable return, provided that lack of return is substantial as demonstrated by competent financial evidence;

Currently, LIPA leases all its operations facilities on Long Island in shared locations with National Grid. As energy demands continue to grow, the operational demands of both utilities are increasing within the limited shared space available. LIPA conducted a Site Optimization Analysis based upon existing National Grid leased operations centers and locations. This analysis identified a need to consolidate

the Port Jefferson and Patchogue operations centers to maximize operational efficiencies. Based on financial review, it is LIPA's objective to own rather than lease their operations facilities in order to reduce operational costs for this area. The goal of the optimization of services is to properly site a facility in proximity to major roadways and highways in order to reduce response time for maintenance activities or outages which require rapid response. Additionally, efficiency optimization for the operations center will allow for LIPA and PSEG LI to meet the growing needs of the customer and ratepayer as population and energy demand increase on Long Island.

LIPA currently leases eight operations locations. As part of the Site Optimization Analysis, the Applicant examined a number of operational factors to identify inefficiencies and determine the ideal locations of 4-6 consolidated facilities. Based on the analysis, LIPA identified existing facilities that are properly sited along the "Long Island Backbone" that are capable of meeting existing and future electric system expansion requirements, and conversely, identified facilities that would benefit from relocation and consolidation.

To service central Suffolk County, LIPA currently operates two existing leased facilities, one in Patchogue and one in Port Jefferson. Neither facility met the conditions outlined in the Site Optimization Analysis as required to safely and efficiently meet growing customer and ratepayer needs based on the locations and sizes of the facilities. Specifically, the size and configuration of the existing facilities limit storage space for fleet vehicles, have inadequate space for pole storage, and have lot configurations that limit maneuverability of larger fleet vehicles, particularly when towing trailers. The significant distance from major highways at the two existing facilities causes delays and inefficiencies in responding to customer's needs or storm restoration activities.

As part of the Site Optimization Analysis, LIPA conducted a calculation of work orders that support public need including service requests, tickets for new work, repair work, and maintenance on the electric transmission and distribution system. Based on these work order calculations, "work centroids" were established, indicating key service locations. The existing Patchogue operations facility was determined to be too far south with respect to the mapped work centroid, and the existing Port Jefferson operations facility was determined to be too far north with respect to the outlined work centroid. Specifically, the Applicant notes that an additional 40 minutes of response time is required for travel in order to respond to work orders in the region due to distance of the existing operations centers from major thoroughfares, where travel time can be critical in the event of storm or emergency response. Based on the Site Optimization Analysis, the existing facilities were determined to be too small, incapable of effectively supporting the storm restoration process, inefficiently located, and leased, which is prohibitive of operational growth to meet LIPA's projected energy demands.

Given the above, the cost of the current inefficiencies related to the existing two operations centers does not provide a reasonable rate of return for operations purposes. Improvements in costs cannot be realized via improvements to the existing shared facilities as such facilities are undersized and located too far from the necessary major arterial roadways to provide efficient, timely service. Therefore, a reasonable return cannot be achieved without implementing the necessary consolidation efforts through the development of the Medford Operations Center Project.

(2) that the alleged hardship relating to the property in question is unique, and does not apply to a substantial portion of the district or neighborhood;

Based on mapping of work centroids as part of the Site Optimization Analysis, Medford was identified as a location that will provide an ideal location for an operations facility in order to provide an efficient response time to key service locations. LIPA evaluated sixteen properties in Medford and adjacent areas; however, there were very limited options available for sale that met the minimum size criteria (approximately 15-18 acres), lot configuration requirements, and proximity to major roadways.

The subject property was identified as a facility that met most of the required operational criteria, which led to pursuing the property. The unique property characteristics that support the Proposed Project include:

- The subject property has been previously disturbed for the past 60± years and has had substantial human activity. Most of the Proposed Project site has already been developed, thus little existing natural habitat is expected to be affected by construction and operations by the operations facility.
- The subject property is currently used for commercial purposes, and the existing recreational building was found suitable for renovation and reuse for office space.
- The Property is located within a CGA, which serves as a "receiving area" for new development that might otherwise occur elsewhere in the protected Core.
- The subject property is presently "over cleared", and the Proposed Project can provide the benefit of revegetation with native pine barrens species.
- The subject property is situated along major thoroughfares and near to crucial service arteries pertinent to LIPA/PSEG LI operations, enabling an ability to function as a critical facility in serving the public. Based on established work centroids, the subject property would provide a key location to consolidate two inefficient locations to be able to improve response times and address different categories of instances/work orders.
- The size of the facility is adequate to provide required site features (storage of poles and large vehicles, fueling for large vehicles, parking for fleet, driveways adequate for turning of large vehicles).
- The property is situated on Route 112, which has multiple existing access points and a dedicated turning lane along the length of the property frontage, allowing for fleet vehicles to safely que without blocking the travel lanes.

The requested hardship is unique given that there are limited utility providers on Long Island, and LIPA is the only electric service provider for the majority of Long Island. Additionally, after over 2+ years of looking for properties which met the search criteria, this was the only property identified as available that met the requirements for redevelopment with an operations center. There are no comparable commercial or industrial uses to the utility industry, so the operations themselves are unique in nature and lend to unique needs. Given these factors, the hardship requested is unique in nature given the nature of the utility, and location and availability of suitable property.

(3) that the requested use variance, if granted, will not alter the essential character of the neighborhood;

From a land use perspective, the proposed administrative offices, fleet parking, fueling station and maintenance and storage facility (Medford Operations Center) are consistent with other nearby uses, including the area's two office complexes, two auto repair facilities, two commercial gas stations, a construction and landscaping materials and equipment storage facility, and other mixed commercial and industrial uses. A multifamily residential development is located adjacent to the north and is screened from the existing parking lots by a perimeter buffer of trees (to remain). Various strategies are proposed to prevent or mitigate any potential impacts on adjacent land uses from future site activities.

The Proposed Project site has a total of 24.26± acres, which allows for the main portion of the development to be clustered toward the west side of the property along the NY 112 commercial corridor in areas of previous site clearing and development. The proposed land use includes the same primary site access and involves adaptive reuse of the existing two-story building at the northwest corner of the property, including façade improvements, which is currently the most visually prominent feature on the site from the perspective of NY 112. The Route 112 frontage is proposed to be professionally landscaped to screen the proposed parking areas and enhance views along the property frontage. The Proposed Project will have a second access at the southwest end of the site to facilitate site circulation for dedicated truck/fleet vehicles into a secure and dedicated fleet parking, maintenance and storage area. The proposed warehouse and fleet garage and fueling station are all setback at least 500+ feet from NY 112 and Cedarhurst Avenue, and the parking canopy is 310± feet from the closest public vantage point (NY 112). Structural setbacks, vegetated buffers consisting of native vegetation, and proposed enhanced perimeter landscaping are provided to ensure suitable screening of the development from nearby public areas. The plan calls for retention of 4.43± acres of existing native woodlands and restoration of 5.73± acres of the site with native pine barrens/oak-hickory forest and native meadow habitats. The Proposed Project also includes the targeted removal of invasive understory vegetation in some areas of the existing onsite woodlands located in the southeast portion of the site and enhancement of these areas with native understory species. Understory restoration will serve to augment and improve vegetated buffers and screening, expand and enhance wildlife habitat, eliminate the need for fertilizers and irrigation, and mitigate impacts on adjacent land uses. Existing wooded buffers that are present on the north, south and east sides of the property will be retained to maintain some of the site's existing character and provide visual buffering and screening. Perimeter fencing will also be installed to provide site security and property delineation.

The Proposed Project is also generally consistent with the Central Pine Barrens Comprehensive Land Use Plan ("CLUP") policies. In addition to revegetating previously disturbed areas of the property, the project will provide stormwater management systems to collect and recharge stormwater runoff generated on the site. The system is designed to include green stormwater infrastructure in the form of a wet meadow o containing native plants. The proposed wet meadow will provide increased stormwater treatment while maintaining green space and significantly reducing the need for maintenance traditionally associated with standard stormwater infrastructure, in support of CLUP objectives. The Proposed Project utilizes previously disturbed areas for redevelopment and siting proposed structures near the middle of the property and away from property boundaries to avoid impacts on neighboring land uses.

As the Proposed Project has been designed to conform with the standards of the CLUP, involves uses that are generally consistent with zoning and land use in the surrounding areas, and incorporates mitigation measures recommended in the Plans, no significant land use or community character impacts will occur, and the Project will not significantly alter the essential character of the area.

(4) that the alleged hardship has not been self-created.

Based on the Site Optimization Analysis, no other properties of the required size were identified on the market within the targeted radius and along main thoroughfares in the Medford area. Given limited availability of parcels that fit the criteria, the subject property was identified as a unique site that was already disturbed and currently occupied by a commercial use. The subject property has been developed since the mid 1960's and is largely cleared, except for the southeast portion of the property. In conformance with the allowable site clearance standards listed in Figure 5-1 of the CLUP, the overall maximum allowed site clearance for the subject property is 15.21 acres and the total existing clearing is 19.34 acres. Therefore, the historic use of the property has resulted in approximately 4.13± acres of clearing exceedances.

The Proposed Project condenses the planned infrastructure and improvements to the previously developed portions of the site and proposes reuse of the existing building and parking areas where possible. However, essential site improvements require limited clearing (0.5 acres) along the fragmented perimeter of the existing wooded area in the southeastern portion of the property (see Existing Conditions and Demolition Plan, Sheet C-102). This area is comprised of lawn area with trees that is currently utilized by the amusement facility for paint ball and other gaming activity areas. Disturbance of this area is necessary to accommodate a fueling area with adequate access and maneuverability for fleet vehicles. A key function of the proposed facility is an ability to store and transport utility poles, which require large fleet vehicles capable of towing trailers with utility poles of various lengths. Due to the size of the vehicles, on-site fueling is an operational requirement for safety reasons, as commercial gas station locations typically do not provide for the necessary turning radii and maneuvering required for many of the fleet vehicles, particularly those trailering utility poles. Attempting to fuel the large vehicles off-site would present a risk to the public for incidents/accidents. As such, the vehicles need to be able to safely make turning radii on-site to minimize the risk of on-site incidents/accidents.

The Proposed Project was designed to minimize impacts on the resources of the CGA to the maximum extent practicable, while meeting the growing and essential electricity needs of the public and supporting the distribution system within the surrounding area. The required clearing of 0.5 acres will be mitigated by the establishment of 5.73 acres of native plant restoration areas, including 2.76 acres of native woodland species and 2.97 acres of native meadow species that will provide ecological benefits. This restoration area combined with the 4.43 acres of existing forest to be retained would result in a total of 10.16 acres of natural vegetation (41.9 percent of the property). The Proposed Project will increase the acreage of native pine barrens habitat in a contiguous area in the eastern portion of the property (see Sheet LA-101 of the Site Plan) thus improving connectivity and reducing the fragmentation that currently

exists on the property. The Applicant has agreed to a covenant for no further clearing of the subject property following the approval of the hardship waiver.

As discussed herein, LIPA has a demonstrated need for additional operational support in central Suffolk County. Key requirements for the Medford Operational Center are a centralized location proximate to major east/west and north/south highways and arterials. These requirements largely coincide with the mapped area of the Central Pine Barrens. Suitable properties meeting the necessary criteria for this use were very limited. Ultimately, the new facility is required to serve an essential public need by supporting reliable electricity for residents and the communities' supporting services (e.g., schools, fire departments, health services, and businesses). In addition to native pine barrens restoration, the proposed facility design incorporates a number of environmentally beneficial improvements, including installation of roof mounted photovoltaic panels to generate clean sustainable energy for onsite use and the installation of two new Innovative/Alternative Onsite Wastewater Treatment Systems (I/A OWTS) to reduce total nitrogen loading from sanitary wastewater systems and provide overall enhanced wastewater treatment to protect groundwater resources. Given that the site was previously over-developed, and the scarcity of available parcels to meet LIPA's operational needs, and those needs are driven by the use and growth of the surrounding community, it is submitted that the hardship was not self-created and provides both a public benefit and net environmental benefit as compared to the existing site conditions.

TRAFFIC IMPACT STUDY

Proposed Medford Operations Center

3351 NYS Route 112, Medford,
Town of Brookhaven,
Suffolk County, New York

July 2023 (Revised October 2023)

N+P Job No.08204

NELSON+POPE
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TABLE OF CONTENTS

FIGURES

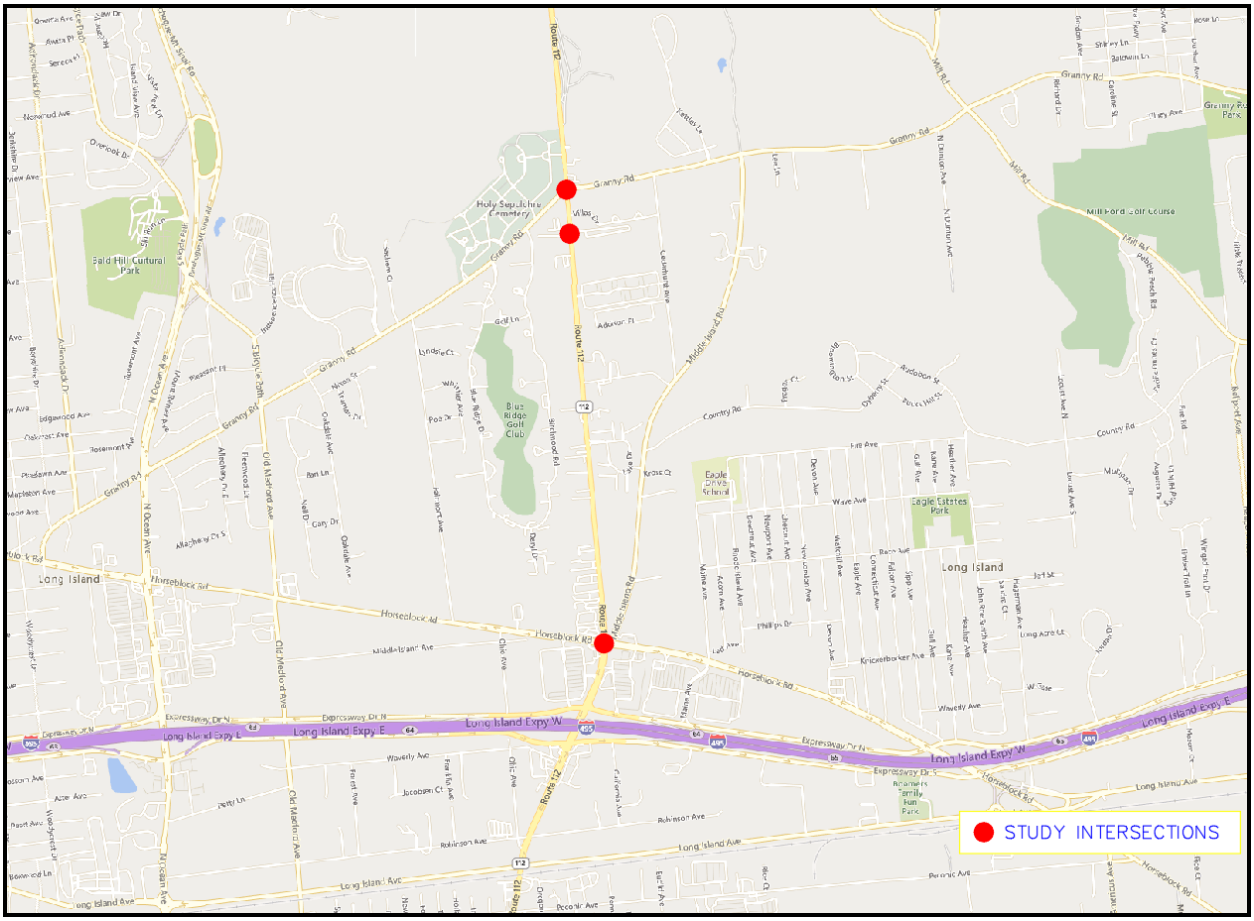
TABLES

APPENDIX

PURPOSE OF REPORT

Nelson + Pope (N+P) has investigated the potential traffic associated with the proposed redevelopment of an existing 24-acre parcel into the Medford Operations Center that will include administrative offices, warehousing, and maintenance/repair building for fleet vehicles. The site is the Country Fair property located on NYS Route 112 in Medford, New York. Access to the site will be provided via a proposed full movement signalized driveway on NYS Route 112 to support facility trucks and employee traffic and an existing unsignalized access on NYS Route 112 to support full movement visitor traffic and right-turn only movement for facility trucks.

This report summarizes the results of a detailed investigation of the traffic impacts associated with the proposed project by reviewing the area's existing roadway characteristics and traffic conditions, estimating the vehicular volume and pattern that the proposed project will generate during peak hours, and analyzing the effect of the additional volume on the surrounding roadway network. Figure 1 shows the site location and study intersection.



SOURCE: MICROSOFT BING

Figure 1: Location Map

STUDY METHODOLOGY

The study assesses the traffic impacts associated with the proposed project and identifies appropriate mitigation, if necessary. In executing the scope of work, the following steps were undertaken.

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, location/geometry of existing driveway and intersection along with signing, parking restrictions, signal timings, phasing, and cycle lengths.

- The most recent 3-years of accident data for the study intersection and roadways in the vicinity of the site was obtained from the New York State Department of Transportation NYSDOT. The data was tabulated and summarized.

- Turning movement traffic counts were conducted at the following intersection during the weekday morning (7:00 AM to 10:00 AM), weekday evening (4:00 PM to 7:00 PM) and Saturday midday (10:00 AM to 2:00 PM) peak hours.

    - NYS Route 112 at Granny Road
    - NYS Route 112 at Site Access
    - NYS Route 112 at Horseblock Road

- Turning movement counts and gap counts were conducted at the intersection of NYS Route 112 at Site Access during the typical weekday (7:00 AM to 7:00 PM) and on a Saturday from 7:00 AM to 7:00 PM to be utilized in the signal warrant and gap analysis.

- The Automatic Traffic Recorders (ATR) machines were installed on northbound and southbound NYS Route 112 in the vicinity of the site for a period of 7 days to be utilized for signal warrant analysis.

- The turning movement counts collected at the study intersections were tabulated for each time period. Peak hours were identified, and peak hour factors calculated for each approach. These traffic volumes are referred to as the 2023 Existing volumes.

- The existing volumes were adjusted to future 2026 volumes using annual growth factors obtained by performing a review of available resources: growth trends demonstrated through historic traffic data and information provided in the Long Island Transportation Plan (LITP) 2000 study model or annual growth factors developed for the New York Metropolitan Transportation Council's Best Practices Model (BMP). These volumes are referred to as the Base Volumes.

- The Town of Brookhaven Planning Department was contacted to obtain information on other planned developments that may impact traffic flow in the study area.

- At the time of study, no other planned project information was provided to us by the Town of Brookhaven. Hence the Base traffic volumes are the 2026 No Build Volumes.

- Turning movement counts were conducted at the access points to an existing Patchogue Operations Center at 460 East Main Street, Patchogue, New York, on a Weekday and Saturday from 6:00 AM to 8:00 PM.

- Estimates of traffic that would be generated by the proposed project were prepared utilizing trip generation rates calculated from the traffic counts conducted at the existing Patchogue Operations Center. The site-generated traffic volumes were assigned to the adjacent street system based upon the anticipated directional trip distribution forecasted by Nelson + Pope.

- The 2026 Build Condition volumes for the proposed project were developed by adding the site generated traffic volumes to the 2026 No Build Condition volumes.

- Performed intersection capacity analyses for the study intersections identified above and the site access driveway. Analyses were performed using Synchro Version 11 to provide level of service results at the intersection and site access location. The analyses were completed for the Existing, No Build, and Build Conditions for weekday AM, PM, and Saturday midday peak hours.

- The results of the analyses for the 2026 No Build Condition and 2026 Build Condition were compared to identify any significant traffic impact associated with the proposed project.

EXISTING CONDITION

Land Use

As previously discussed, the proposed project is a Medford Operations Center that will include administrative offices, warehousing, and maintenance/repair building for fleet vehicles. The site is the Country Fair property located on NYS Route 112 in Medford, New York. Access to the site will be provided via a proposed full movement signalized driveway on NYS Route 112 to support facility trucks and employee traffic and an existing unsignalized access on NYS Route 112 to support full movement visitor traffic and right-turn only movement for facility trucks.

Roadway Conditions

The following is a list of roadways included in the study network surrounding the site. The traffic generated by the proposed project will be distributed throughout the network. The general descriptions listed here refer only to the sections of the roadways that exist near the site and their cross-section may vary further away from the site.

NYS Route 112 is a north/south arterial that provides one lane per travel direction with a two-way center left turn lane and exclusive turn lanes at key intersections in the vicinity of the study area. The section of NYS Route 112 between Granny Road and Horseblock Road has an average annual daily traffic (AADT) volume of approximately 26,014 vehicles per day (source: 2023 Traffic Count Data collected by Nelson + Pope). The posted speed limit on NYS Route 112 in the vicinity of the study area is 40 MPH. Along NYS Route 112 in the vicinity of the site, the horizontal alignment is straight, and the vertical alignment is flat. The land uses along this roadway are predominantly commercial.

Table 1 summarizes the lane configurations and traffic controls at the study intersections.

Table 1: Intersection Geometry

Intersection	Approach	Lane Designation*	Traffic Control
NYS Route 112 at Granny Road	EB	L-TR	Traffic Signal
	WB	L-T-R	
	NB	L-T-TR	
	SB	L-2T-R	
NYS Route 112 at Site Access	WB	L-R	Stop Controlled
	NB	T-R	
	SB	LT	
NYS Route 112 at Horseblock Road	EB	L-2T-R	Traffic Signal
	WB	2L-2T-R	
	NB	2L-2T-R	
	SB	2L-2T-R	

** L = Left turn lane; T = through lane; R = Right turn lane*

Accident History

Accident data for the sections of roadways and intersections in the vicinity of the site were obtained from the NYSDOT. The most recent data available was from December 31, 2019, to December 31, 2022 (3-year period). The data was reviewed and summarized in the following tables.

Table 2: Accident Summary by Severity

Location	Accident Severity				
	Fatality	Injury	Property Damage	Non - Reportable	TOTAL
NYS Route 112 at Granny Road	-	10	39	9	58
NYS Route 112 at Site Access	-	-	-	-	0
NYS Route 112 at Commercial Blvd	-	9	17	3	29
NYS Route 112 at Lake Drive	-	7	8	2	17
NYS Route 112 at Horseblock Road	-	14	53	18	85
Total	0 *0%*	40 *21%*	117 *62%*	32 *17%*	189 *100%*

Table 2 indicates a total of 189 accidents occurred at or in the vicinity of the study intersection and roadway segment during the analysis period. The majority of the accidents resulted in property damage. The location with the greatest number of accidents is the intersection of NYS

Route 112 at Horseblock Road with 85 accidents, followed by NYS Route 112 at Granny Road with 58 accidents. There was no fatal accident that occurred during the study period.

Table 3: Accident Summary by Type of Collision

Location	Accident Type										
	Right Angle	Rear End	Head On	Left Turn	Right Turn	Fixed Object	Ped/ Bicycle	Overtk	Side swipe	Other/ Unknown	Total
NYS Route 112 at Granny Road	7	28	1	6	-	-	2	8	2	4	58
NYS Route 112 at Site Access	-	-	-	-	-	-	-	-	-	-	0
NYS Route 112 at Commercial Blvd	2	13	-	2	1	1	-	3	1	6	29
NYS Route 112 at Lake Drive	2	5	-	2	-	2	-	1	2	3	17
NYS Route 112 at Horseblock Road	8	27	1	3	2	3	1	29	2	9	85
Total	19 *10%*	73 *38.5%*	2 *1%*	13 *7%*	3 *1.5%*	6 *3%*	3 *2%*	41 *21.5%*	7 *4%*	22 *11.5%*	189 *100%*

A review of Table 3 indicates that a high percentage (38.5%) of the accidents involves read-end accidents, followed by overtaking accident type at 21.5%, other/unknown at 11.5% and right angle accidents at 10%.

Traffic Volume Data

Turning movement traffic counts were collected at the study intersections on Tuesday, April 25, 2023, during the weekday morning (7:00 AM to 10:00AM) and weekday evening (4:00 PM to 7:00 PM) peak hours. The weekend turning movement counts were collected on April 22, 2023, during the Saturday midday peak period (10:00 AM to 2:00 PM). The volume data was tabulated to identify the peak hours at the study intersection.

The turning movements counts were recorded during 15-minute intervals classified by vehicle type including cars, buses, and trucks. The data was tabulated and summarized to identify the peak hour volumes and to calculate the peak hour factors. The turning counts detailed data are included in Appendix A.

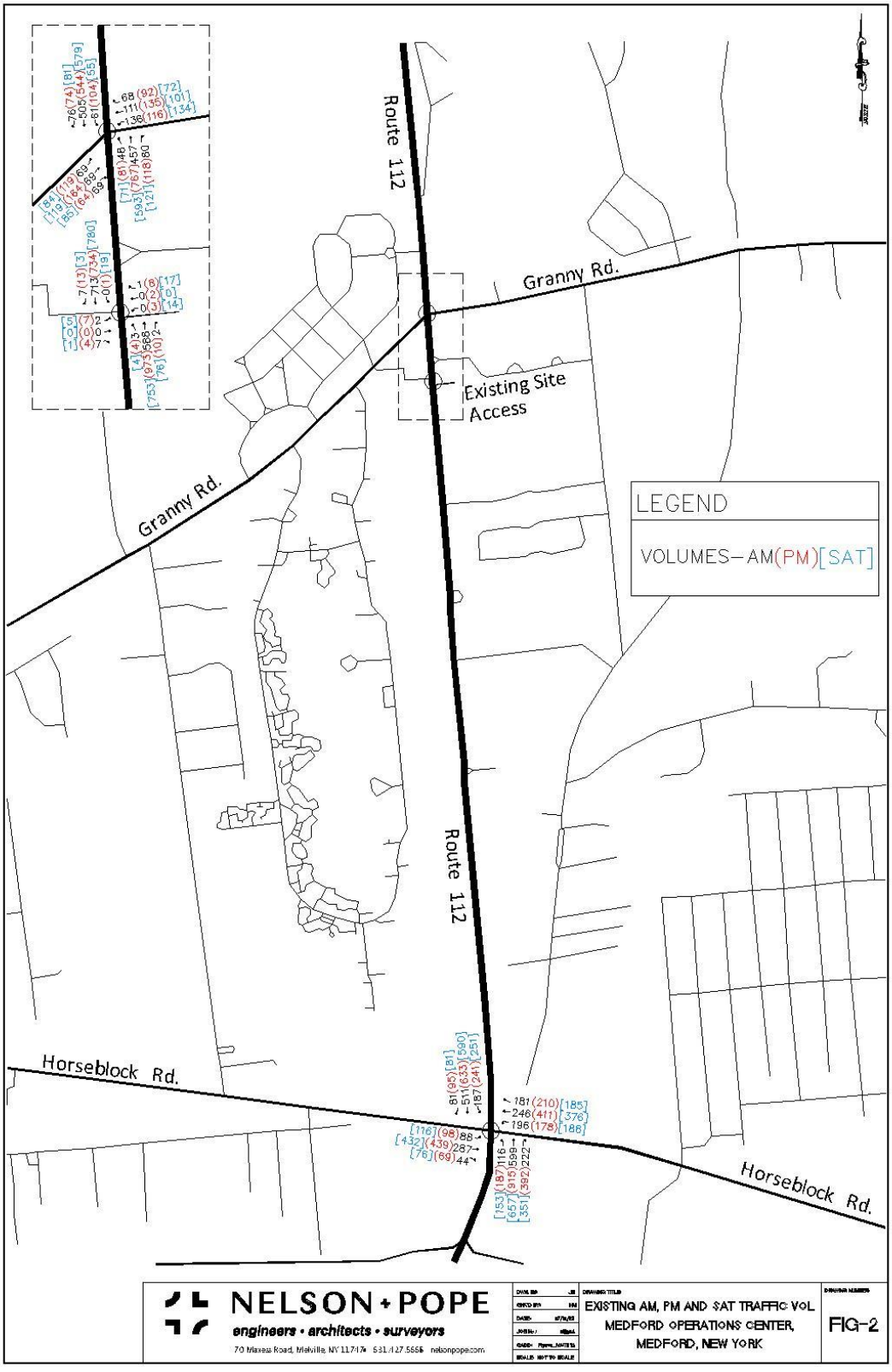


Figure 2: 2023 Existing Peak Hour Traffic Volumes

LEVEL OF SERVICE DESCRIPTION

While traffic volumes provide an important measure of activity on the adjacent roadway network, evaluating how well that network accommodates those volumes is also important. Therefore, a comparison between peak hour traffic volumes and available roadway capacity was prepared. Capacity, by definition, represents the maximum number of vehicles that can be accommodated given the constraints of roadway geometry, traffic characteristics and controls. Intersections primarily control capacity within roadway networks, since conflicts exist at these points resulting from through, crossing and turning traffic. Because of these conflicts, congestion is most likely to occur at intersections. Therefore, intersections are studied most often when determining the quality of traffic flow.

To identify the operational characteristics of the study intersections, LOS and capacity analyses and arterial network analyses for the study intersections were performed using *SYNCHRO Version 11* Software. *SYNCHRO*, in conjunction with *SimTraffic*, is a software package that allows for an interactive analysis of a single intersection or a network of intersections and can also be used for modeling and optimizing traffic signal timings. The *SimTraffic* component provides simulations of operations with animation features. *SYNCHRO* implements the Intersection Capacity Utilization (ICU) 2003 method for determining intersection capacity. This method compares the current volume to the intersection's ultimate capacity. *SYNCHRO* also implements the methods of the Highway Capacity Manual (HCM 6) for urban streets, signalized intersections, and unsignalized intersections for determining intersection capacity analyses. The *HCM* contains procedures and methodologies for estimating capacity and determining LOS for many transportation facilities and modes including signalized and unsignalized intersections.

An intersection's LOS (LOS) describes its quality of traffic flow. It ranges in grade from LOS "A" (relatively congestion-free) to LOS "F" (very congested). The LOS definition, as well as the threshold values for each level, varies according to whether the intersection is controlled by a signal or a stop sign. A brief description is given here, and a more detailed definition is found in Appendix C.

The capacity of a signalized intersection is evaluated in terms of the ratio of demand flow rate to capacity (V/C ratio). The capacity for each approach represents the maximum rate of flow (for the subject approach) which may pass through the intersection under prevailing traffic, roadway, and signal conditions. The LOS of a signalized intersection is evaluated based on average control-delay measured in seconds per vehicle (sec/veh). The control-delay is calculated using an equation that combines the stopped-delay with the vehicle acceleration/deceleration delay that is caused by the signalized intersection. At the signalized intersections, factors that affect the various approach capacities include width of approach,

number of lanes, signal “green time,” turning percentages, truck volumes, etc. However, delay cannot be related to capacity in a simple one-to-one fashion. For example, it is possible to have delays in the LOS “F” range without exceeding roadway capacity. Substantial delays can exist without exceeding capacity if one or more of the following conditions exist: long signal cycle length; a particular traffic movement experience a long red time; or progressive movements for a particular lane is poor.

The flow at a two-way stop-controlled (TWSC) intersection is gauged in terms of LOS and capacity. The capacity of a stop-controlled leg is based on the distribution of gaps in the major street traffic, driver judgment in selecting a gap, and the follow-up time required by each driver in a queue. The LOS for a TWSC intersection is determined by the control-delay and is defined for each movement rather than for the overall intersection. As with signalized intersections, HCS quantifies only the average control-delay, which is a function of the approach and the degree of saturation for any particular minor movement.

EXISTING CONDITION ANALYSIS

The 2023 existing peak hour traffic volumes depicted in Figure 2 were used to determine the existing capacity and LOS of the study intersections. Table 4 and 5 contains the LOS summary for the study intersections under the Existing Conditions calculated through the Synchro software described previously. The detailed analysis worksheets are in Appendix D.

Table 4: Existing Condition LOS Summary (signalized intersections)

Signalized Intersections			AM Peak		PM Peak		Saturday Peak	
Location	Approach	Movement	Delay	LOS	Delay	LOS	Delay	LOS
NYS Route-112 at Granny Road	EB	L	35.1	D	38.6	D	33.8	C
		TR	44.7	D	66.5	E	56.9	E
	WB	L	43.4	D	46.5	D	46.1	D
		T	49.1	D	51.4	D	44.4	D
		R	1.4	A	2.6	A	1.1	A
	NB	L	9.3	A	10.3	B	10.1	B
		TR	17.1	B	22.3	C	18.4	B
	SB	L	9.7	A	14.6	B	10.2	B
		T	16.8	B	18.4	B	18.1	B
		R	0.3	A	0.2	A	0.2	A
		Intersection	22.2	C	27.1	C	24.2	C
NYS Route-112 at Horseblock Road (CR-16)	EB	L	55.0	D	90.4	F	104.7	F
		T	43.9	D	57.5	E	46.7	D
		R	40.5	D	49.1	D	40.6	D
	WB	L	47.0	D	73.0	E	67.4	E
		T	39.4	D	55.8	E	45.3	D
		R	9.8	A	8.9	A	9.3	A
	NB	L	46.2	D	65.8	E	47.1	D
		T	35.6	D	43.5	D	34.6	C
		R	5.7	A	17.7	B	14.3	B
	SB	L	45.5	D	68.6	E	46.1	D
		T	28.7	C	33.3	C	29.1	C
		R	0.5	A	2.3	A	0.5	A
		Intersection	33.0	C	44.7	D	38.0	D

Notes: LOS = Level of Service, Delay = seconds/vehicle,

NYS Route-112 at Granny Road

The signalized intersection of NYS Route-112 at Granny Road currently operates at overall LOS C during the weekday AM, weekday PM and Saturday midday peak hours with all approach movements operating at LOS D or better except for the eastbound through-right turn movement that operates with LOS E during the weekday PM and Saturday midday peak hours.

NYS Route-112 at Horseblock Road (CR-16)

The signalized intersection of NYS Route-112 at Horseblock Road (CR-16) currently operates at overall LOS C, D and D during the weekday AM, weekday PM and Saturday midday peak hours with all approach movements operating at LOS E or better except for the eastbound left turn movement that operates with LOS F during the weekday PM and Saturday midday peak hours.

Table 5: Existing Condition LOS Summary (unsignalized intersection)

Unsignalized Intersection			AM Peak		PM Peak		Saturday Peak	
Location	Approach	Movement	Delay	LOS	Delay	LOS	Delay	LOS
	EB	LTR	15.2	C	19.7	C	19.9	C
NYS Route-112 at	WB	LTR	16.5	C	19.1	C	18.0	C
Existing Site	NB	LT	0.1	A	0.2	A	0.1	A
Driveway		R	0.0	A	0.0	A	0.0	A
	SB	LTR	0.0	A	0.0	A	0.7	A

Notes: LOS = Level of Service, Delay = seconds/vehicle,

NYS Route-112 at Horseblock Road (CR-16)

Currently the eastbound and westbound approaches at the intersection of NYS Route-112 and existing site driveway operates at overall LOS C and the northbound and southbound NYS Route-112 approaches operate at LOS A during the weekday AM, weekday PM and Saturday midday peak hours.

NO BUILD CONDITION

The No Build Condition represents traffic conditions expected at the study intersection in the future year 2026 without the construction of the proposed project. The No Build Condition traffic volumes are estimated based on two factors as follows:

- Increases in traffic due to general population growth and developments outside of the immediate project area. This traffic increase is referred to as ambient growth.
- Other planned projects located near the project site that may affect traffic levels and patterns at the study intersection in this report.

Traffic Growth

A 1.3% annual growth factor was obtained from the New York State Department of Transportation (NYSDOT) Long Island Transportation Plan 2000 Study (LITP2000) for the Town of Brookhaven. The existing traffic volumes were increased by this factor for a period of 3 years to project volumes to the year 2025 (2025 Base Volumes).

Other Planned Projects

"Other Planned Projects" is a term that refers to developments located near the project site that are currently under construction or in the planning stages. Traffic generated by these projects may significantly influence the operations of the study intersections and would not be represented in the field data collected. The Town of Brookhaven was contacted to obtain information on any planned projects in the area. At the time this study was conducted, there were no significant planned projects provided to us by the Town. However, any minor projects in the area will be accounted for in the background growth rate. The No Build traffic volumes are shown in Figure 3.

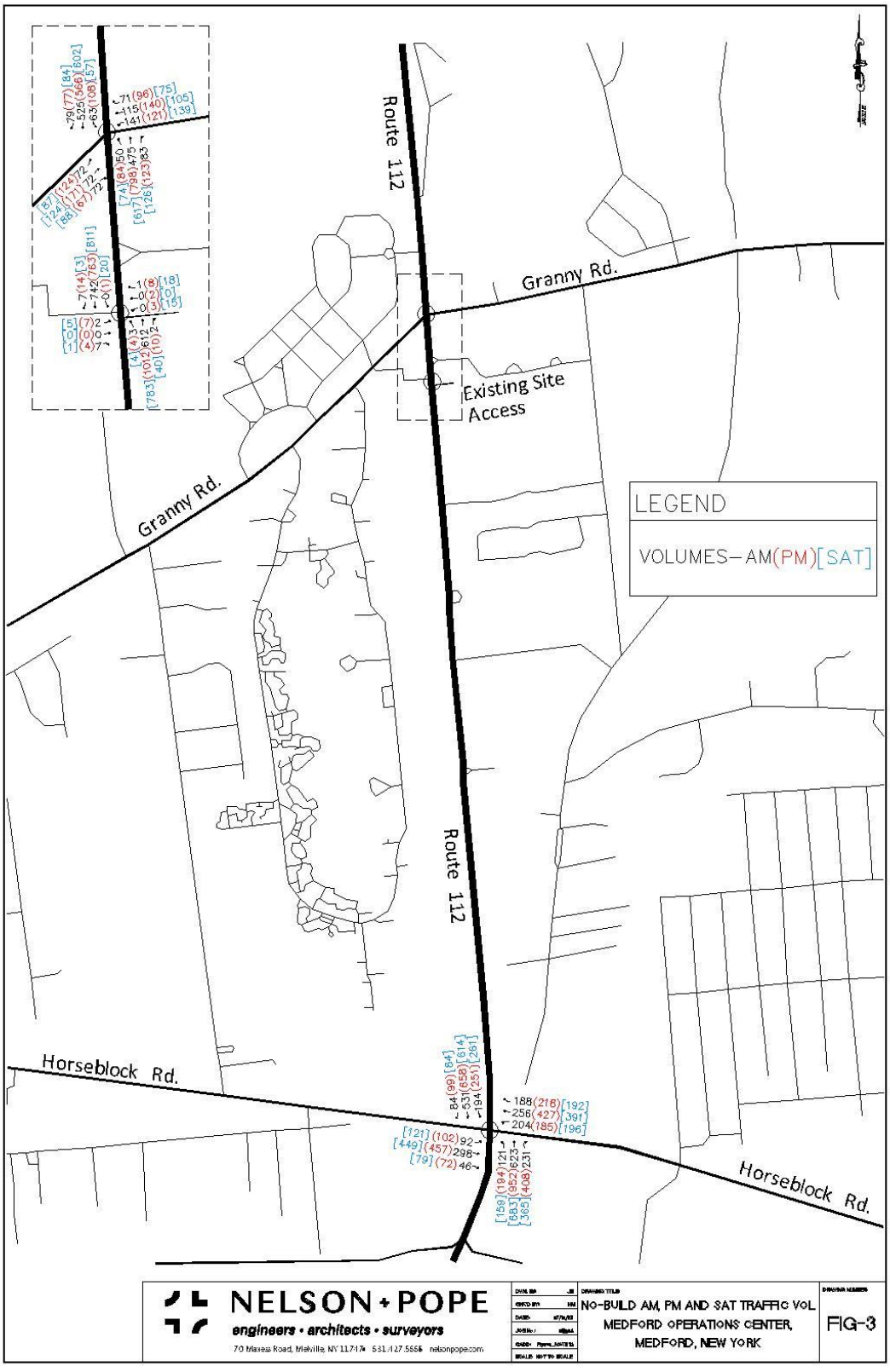


Figure 3: 2026 No Build Peak Hour Traffic Volumes

PROPOSED DEVELOPMENT

Site Access

As depicted on the site plan the proposed redevelopment of an existing 24-acre parcel into the Medford Operations Center will include administrative offices, warehousing, and maintenance/repair building for fleet vehicles. The site is the Country Fair property located on NYS Route 112 in Medford, New York. Access to the site will be provided via a proposed full movement signalized driveway on NYS Route 112 to support facility trucks and employee traffic and an existing unsignalized access on NYS Route 112 to support full movement visitor traffic and right-turn only movement for facility trucks.

Trip Generation

To identify the impacts the proposed project may have on the adjacent street system, it is necessary to estimate the magnitude of traffic volume generated during the peak hours and to estimate the directional distribution of the site traffic when entering and exiting the subject property.

The trips generated by an existing operations center located in Patchogue were counted during the weekday and Saturday from 6:30 AM to 8:00 PM to calculate the number of trips generated by the existing Patchogue Operations Center. The ITE publication, Trip Generation, 11th Edition, has no land use code similar to the existing operations center. Hence, to calculate the trips for the proposed Medford Operations Center, a rate was developed based on the trip counts, total number of staff and fleet size of the existing operations center located in Patchogue. The following tables summarize the trip generation estimates for the proposed Medford Operations Center with rate developed from the existing Patchogue Operations Center. Appendix B contains the trip generation worksheets.

Table 6: Trip Generation (Proposed Medford Operations Center)

Time Period	Distribution	Proposed Medford Operations Center (Totals Trips)	Cars	Trucks
Weekday AM Peak Hour	Enter	10	6	4
	Exit	42	7	35
	Total	**52**	**13**	**39**
Weekday PM Peak Hour	Enter	31	11	20
	Exit	13	7	6
	Total	**44**	**18**	**26**
Saturday Midday Peak Hour	Enter	5	5	0
	Exit	7	5	2
	Total	**12**	**10**	**2**

As can be seen from Table 6 above, the proposed Medford Operations Center is anticipated to generate 52 trips (10 entering and 42 exiting) during the weekday AM peak hour, 44 trips (31 entering and 13 exiting) during the weekday PM peak hour, and 12 trips (5 entering and 7 exiting) during the Saturday midday peak hour.

Trip Distribution and Assignment

The volume of site traffic expected to be generated by the proposed project during peak hours was distributed and assigned to each intersection movement based on existing roadway volumes and travel patterns. The nature of the proposed land use and its associated travel patterns was considered as well. Separate distributions were developed for cars and trucks. Figures 4 and 5 depict the trip distributions for cars and trucks, respectively. Figures 6, 7, 8, 9, 10 and 11 depict the site generated traffic volumes for the weekday AM, PM and Saturday midday peak hours for cars and trucks. The site generated traffic volumes were then added to the weekday AM, PM, and Saturday midday peak hours. No Build Condition volumes resulting in the Build Condition volumes. The Build volumes are depicted in Figure 12.

It should be noted that the existing Country Fair Entertainment Park will be removed, and the proposed project will utilize the existing stop-controlled driveway. The existing traffic utilizing this driveway will not be there after the construction of the proposed project. However, to perform a conservative analysis, no credit was taken to account for the traffic from the existing uses on the site, and traffic generated by the existing uses was not removed for the Build condition analysis.

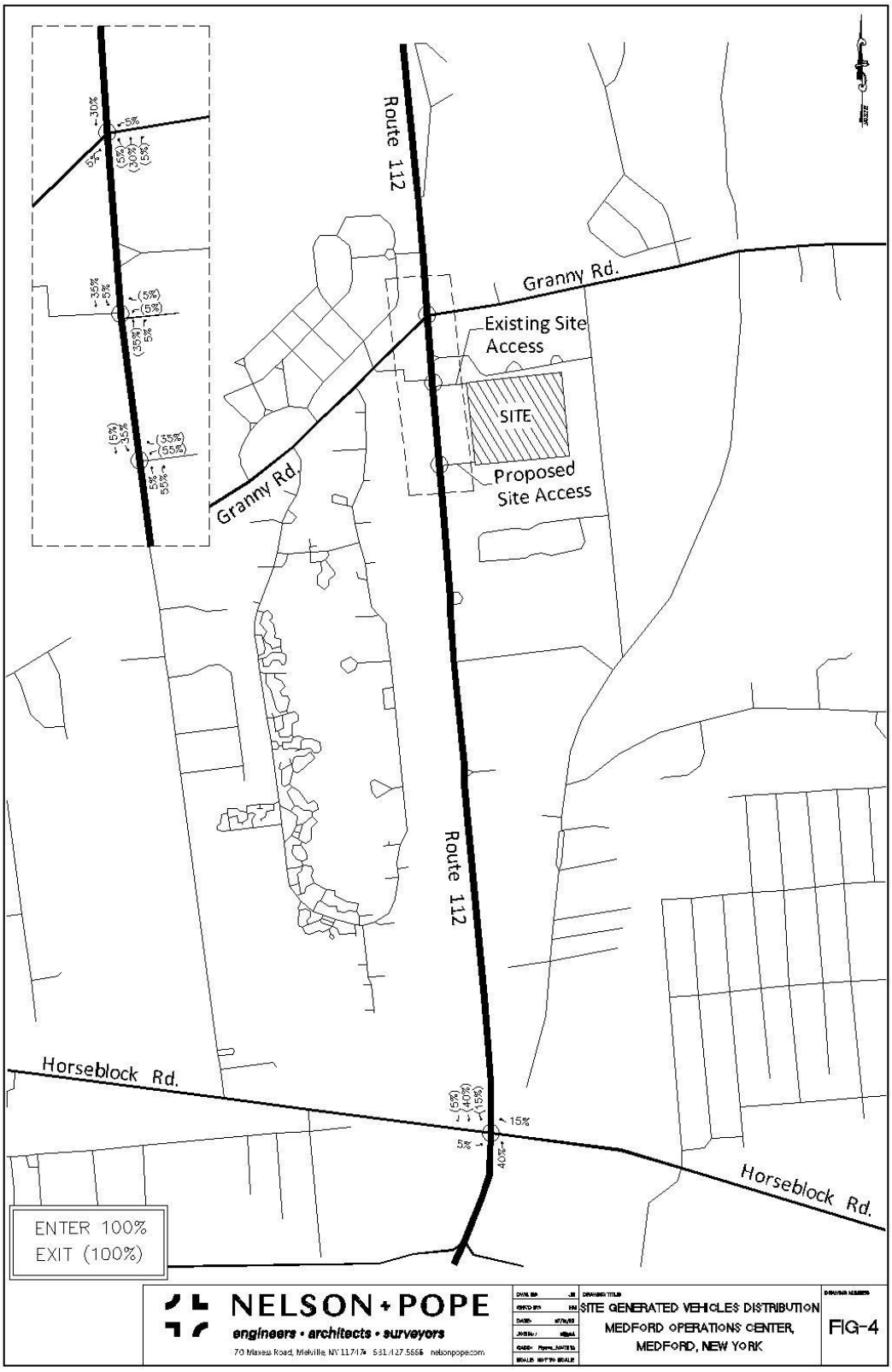


Figure 4: Site Generated Vehicles Trip Distribution

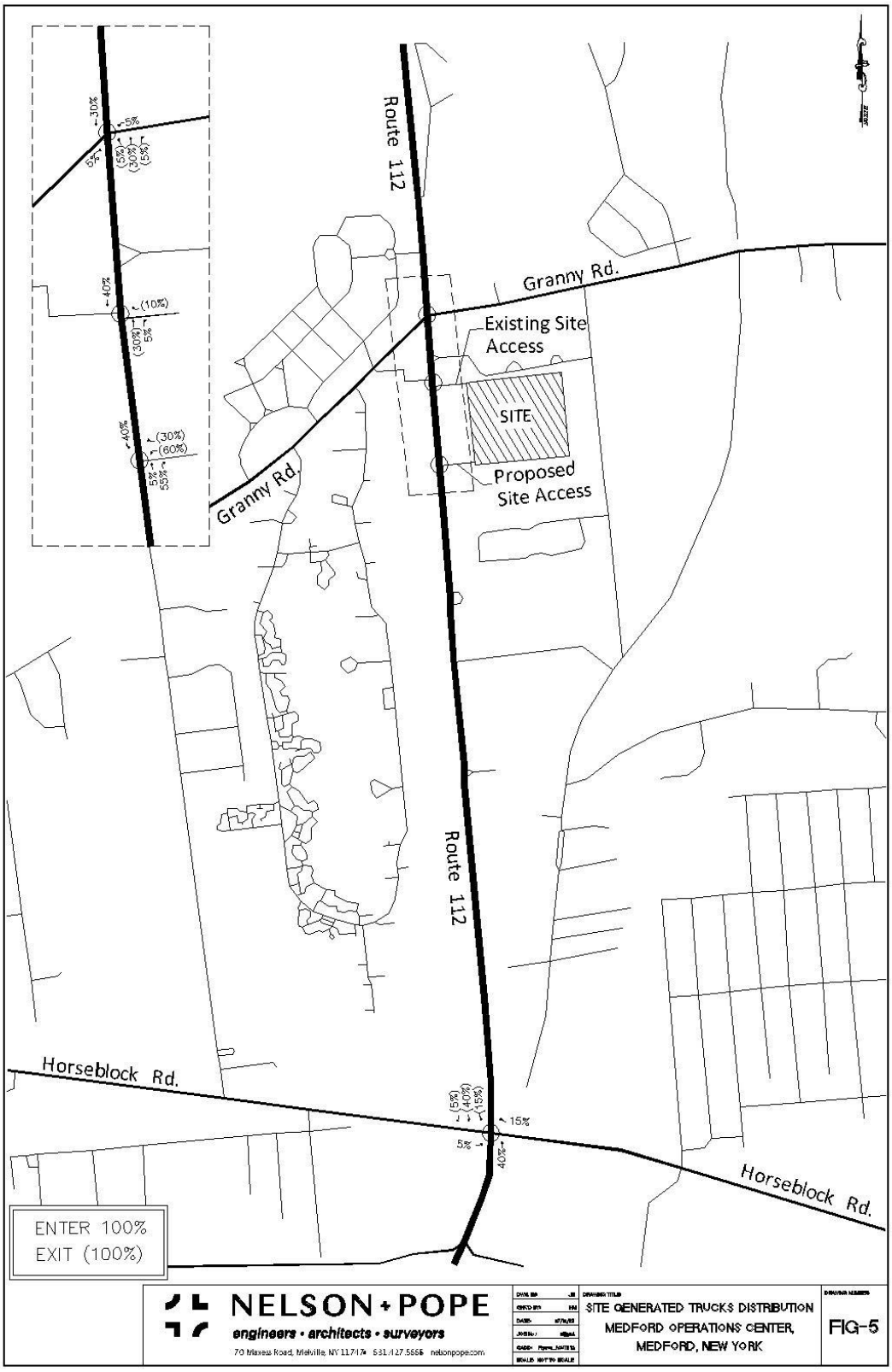


Figure 5: Site Generated Trucks Trip Distribution

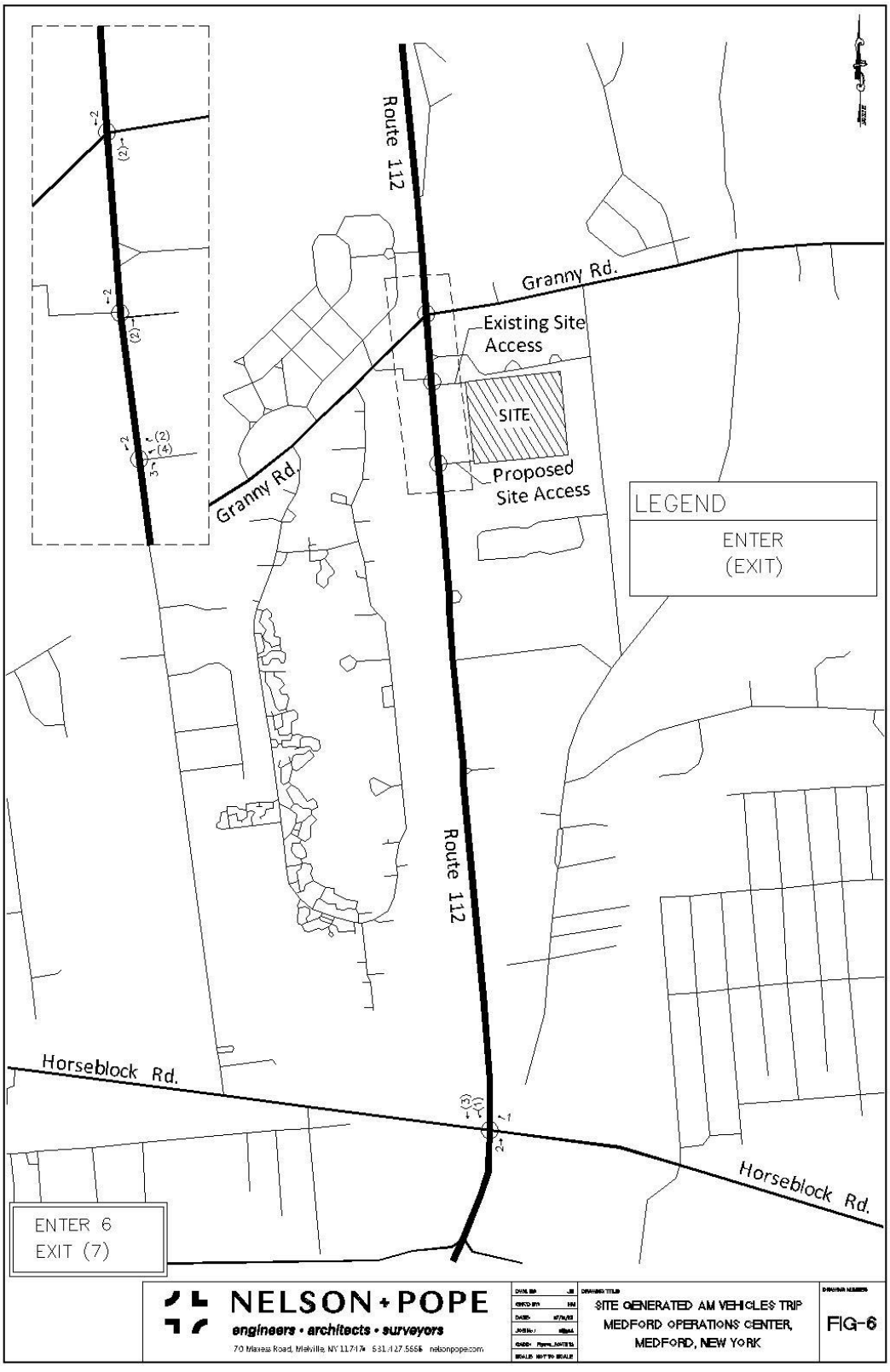


Figure 6: Site Generated AM Peak Hour Vehicle Traffic Volumes

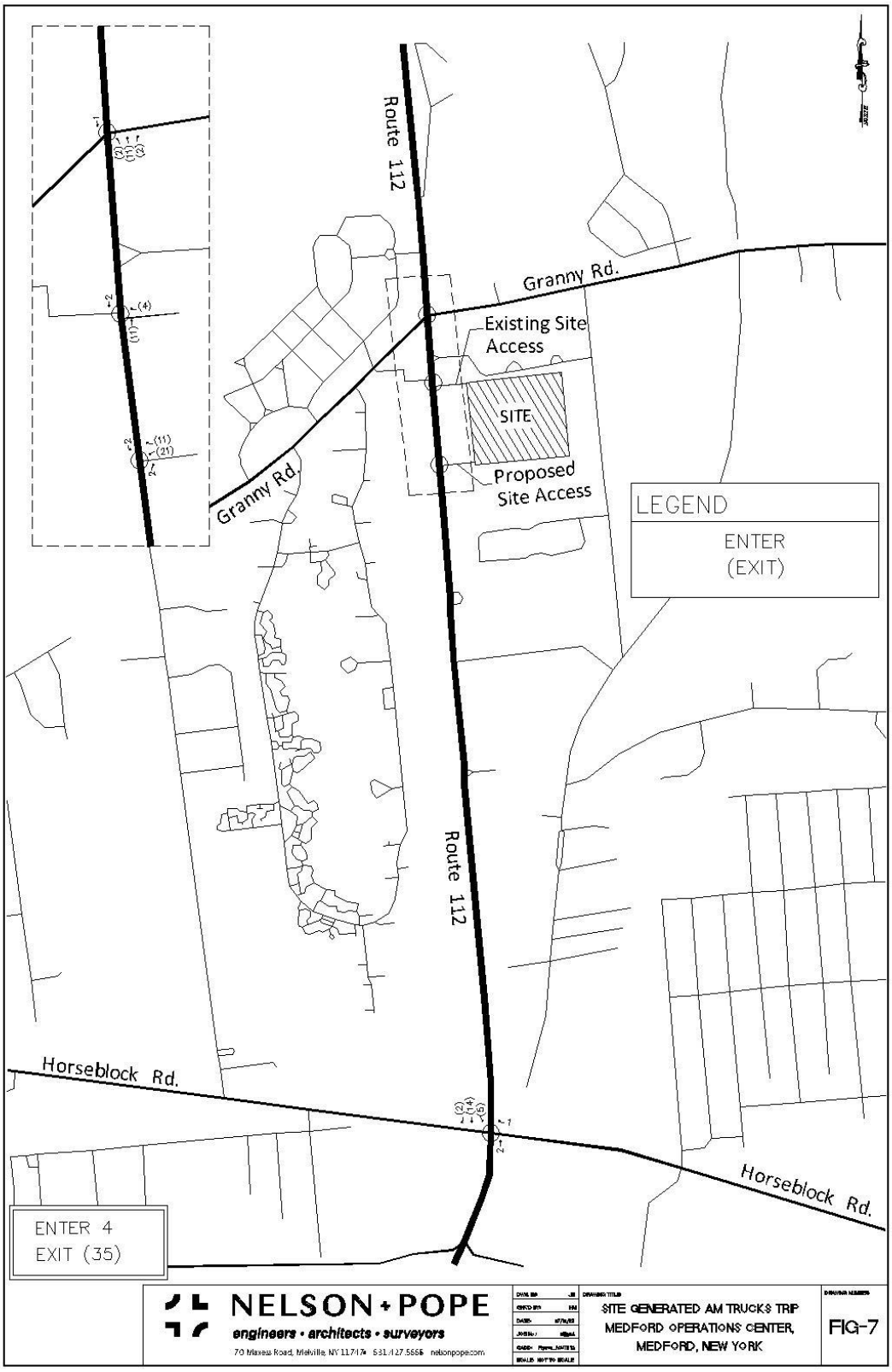


Figure 7: Site Generated AM Peak Hour Truck Traffic Volumes

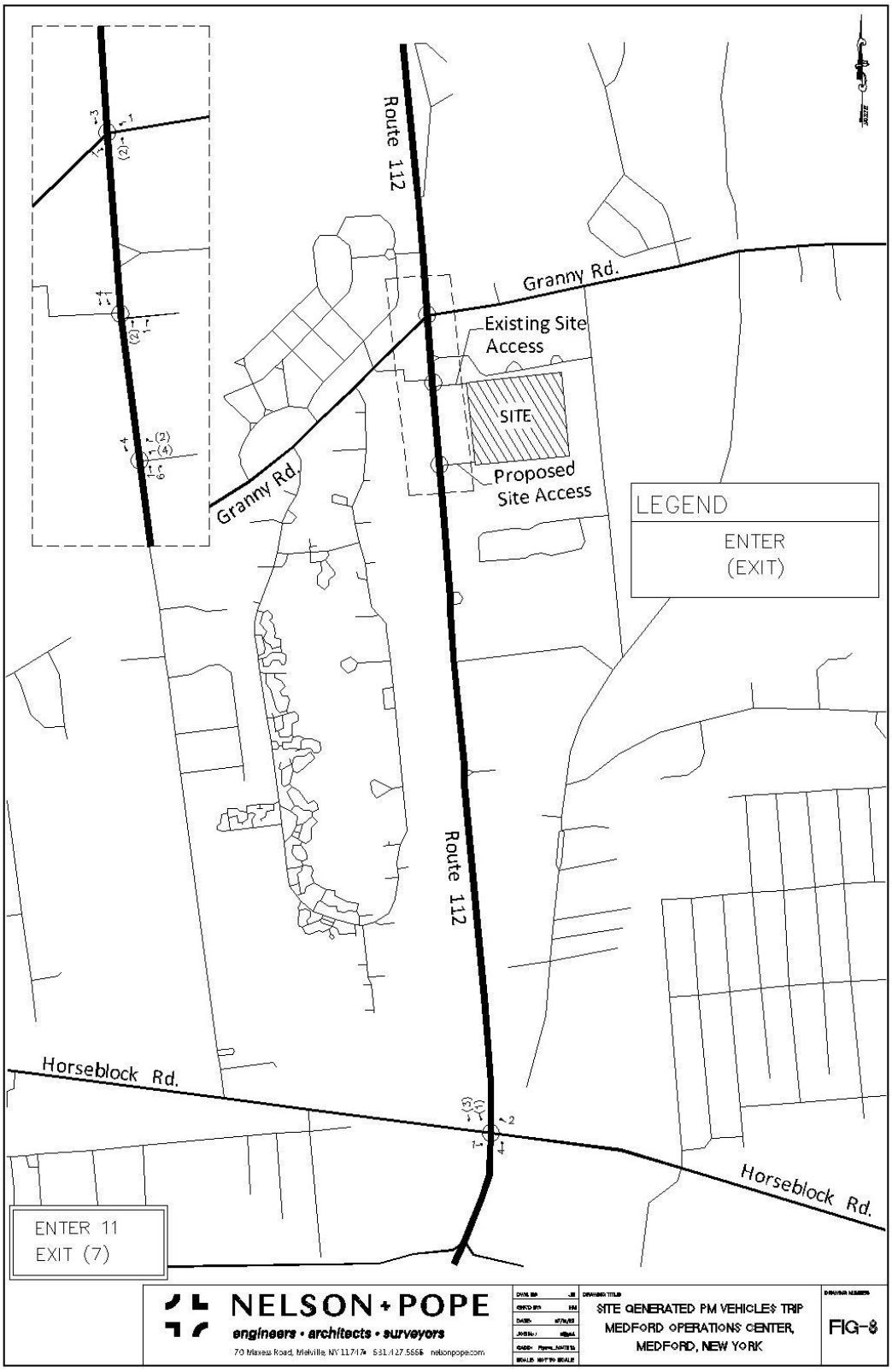


Figure 8: Site Generated PM Peak Hour Vehicle Traffic Volumes

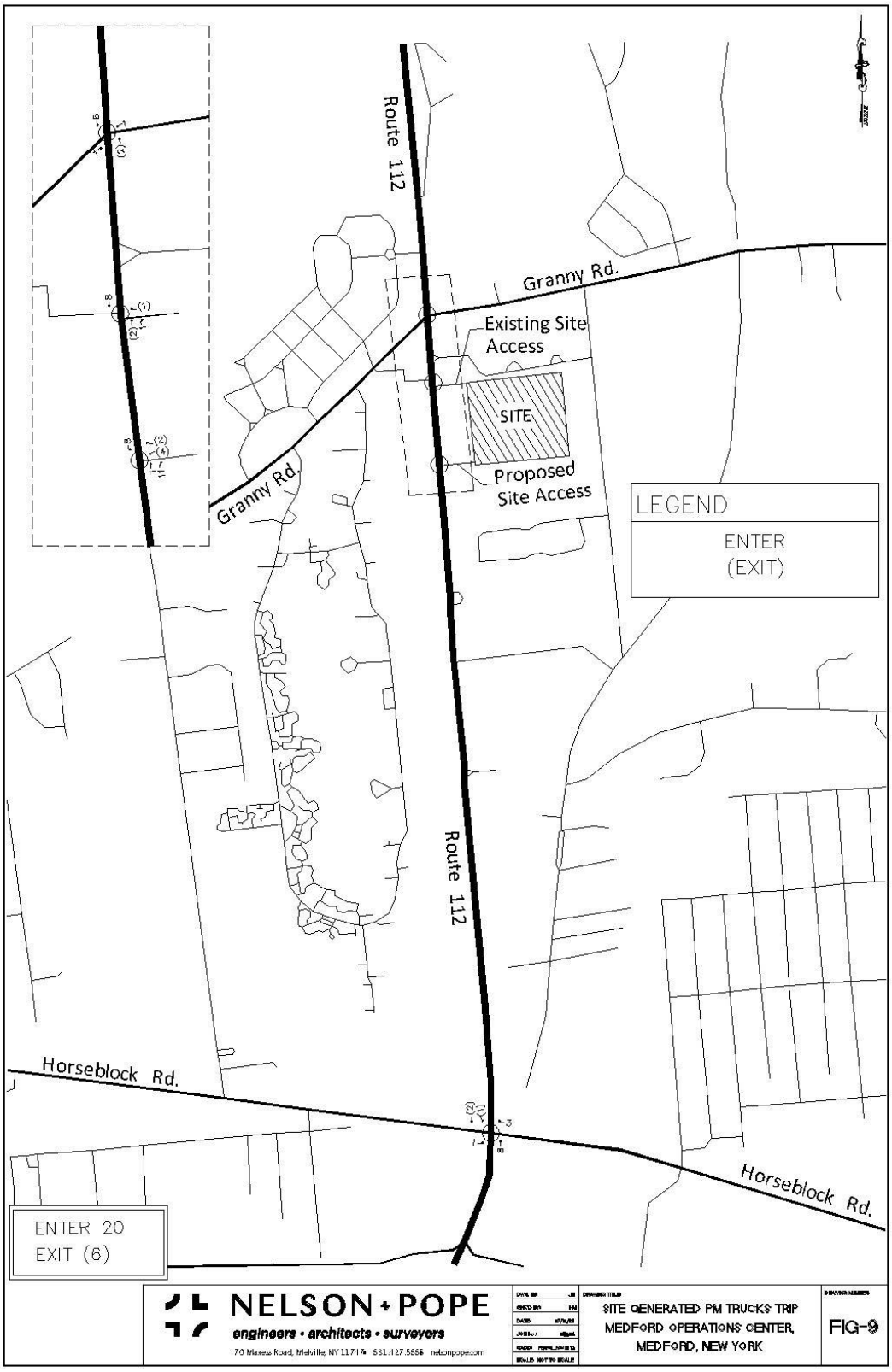


Figure 9: Site Generated PM Peak Hour Truck Traffic Volumes

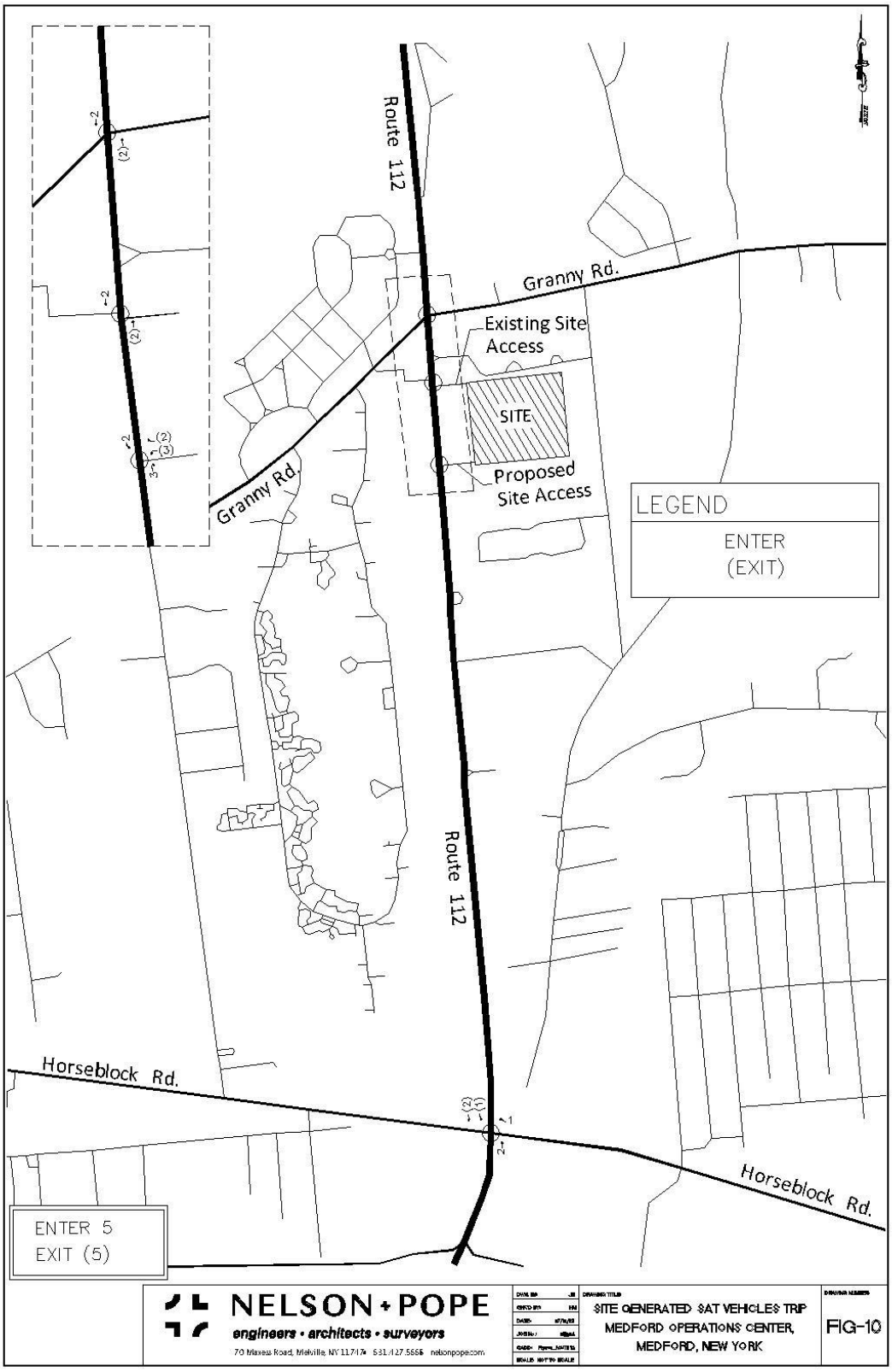


Figure 10: Site Generated SAT Peak Hour Vehicles Traffic Volumes

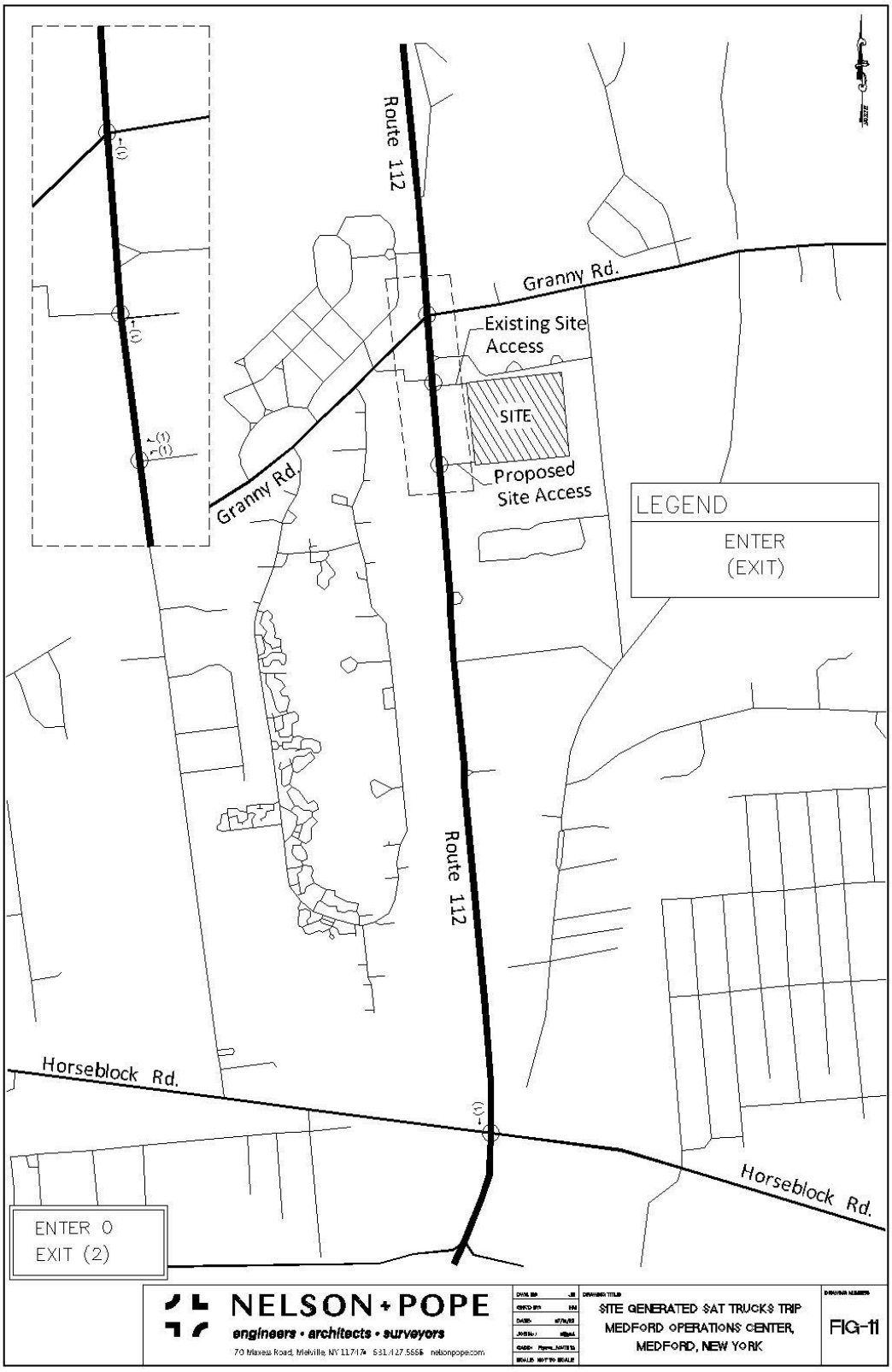


Figure 11: Site Generated SAT Peak Hour Trucks Traffic Volumes

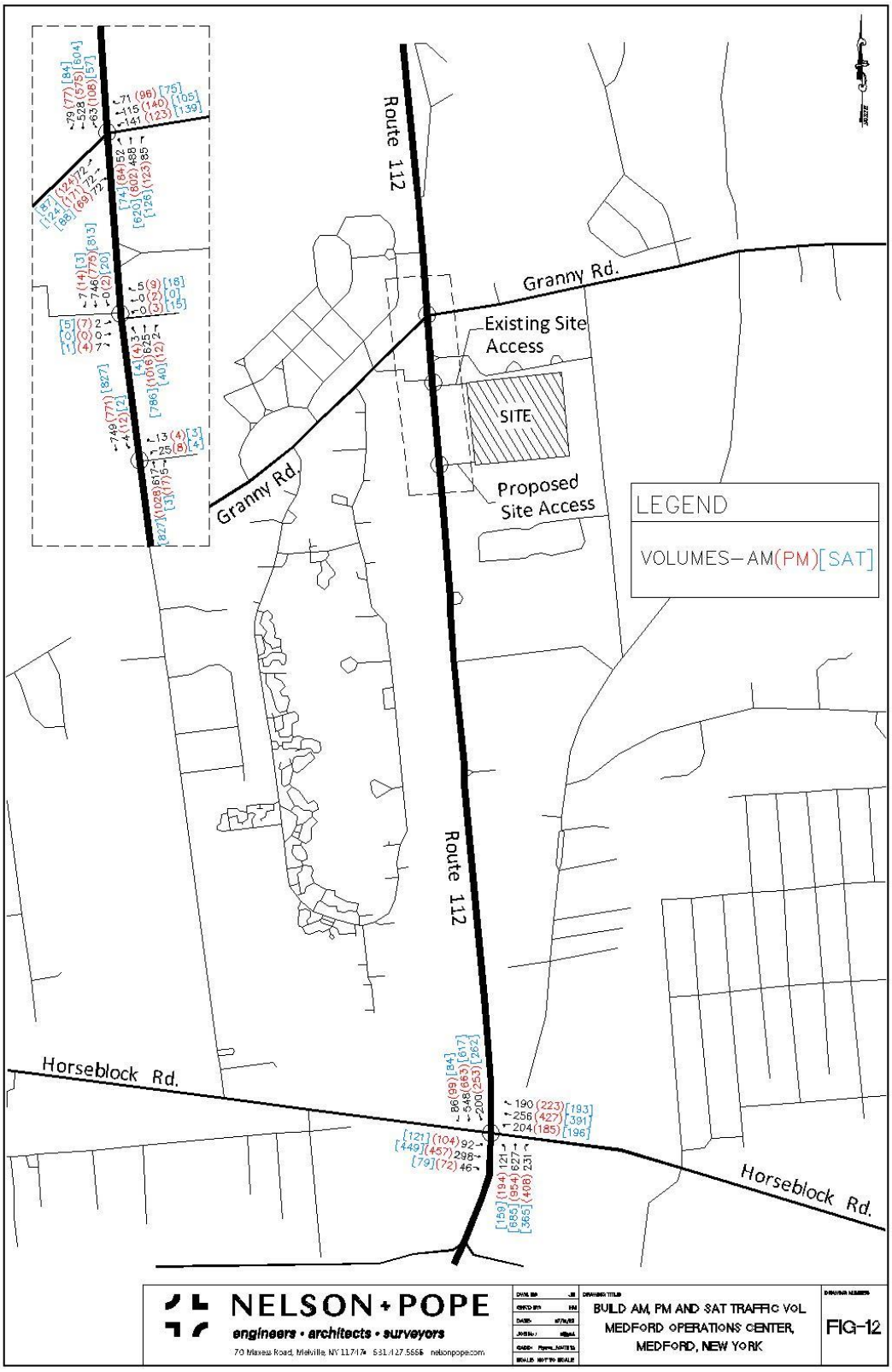


Figure 12: 2026 Build Peak Hour Traffic Volumes

TRAFFIC IMPACT ANALYSIS AND MITIGATION

In order to identify the impacts created by the proposed project, capacity analyses were conducted at the study intersection for the No Build and Build Conditions during the weekday AM, PM, and Saturday midday peak hours. The results of the capacity analyses for the No Build and Build Conditions were compared to determine the impact that will be created on the study intersections by the proposed project.

Tables 7 through 12 summarize the results of the capacity analyses for the No Build and Build Conditions for the AM, PM, and Saturday midday peak hours. These tables are followed by a detailed description of the intersection and the LOS comparison.

Table 7: Level of Service Summary – AM Peak Hour Signalized Intersection

Signalized Intersections			No Build		Build	
Location	Approach	Movement	Delay (sec)	LOS	Delay (sec)	LOS
NYS Route-112 at Granny Road	EB	L	35.3	D	35.3	D
		TR	45.9	D	45.9	D
	WB	L	45.1	D	45.1	D
		T	49.4	D	49.4	D
		R	1.4	A	1.4	A
	NB	L	9.5	A	9.5	A
		TR	17.4	B	17.6	B
	SB	L	9.8	A	9.9	A
		T	17.1	B	17.1	B
		R	0.3	A	0.3	A
		Intersection	22.7	C	22.7	C
NYS Route-112 at Horseblock Road (CR-16)	EB	L	56.9	E	57.2	E
		T	44.7	D	45.0	D
		R	41.0	D	41.2	D
	WB	L	48.4	D	48.7	D
		T	40.0	D	40.2	D
		R	4.5	A	9.7	A
	NB	L	47.1	D	47.3	D
		T	36.6	D	36.9	D
		R	5.7	A	5.7	A
	SB	L	46.4	D	46.6	D
		T	29.2	C	29.4	C
		R	0.5	A	0.5	A
		Intersection	34.1	C	33.9	C
NYS Route-112 at Proposed Site Driveway	WB	LR	-	-	19.3	B
	NB	TR	-	-	3.3	A
	SB	L	-	-	2.2	A
		T	-	-	4.1	A
		Intersection			4.1	A

Notes: LOS = Level of Service, Delay = seconds/vehicle

Table 8: Level of Service Summary – AM Peak Hour Unsignalized Intersection

Unsignalized Intersection			No Build		Build	
Location	Approach	Movement	Delay (sec)	LOS	Delay (sec)	LOS
NYS Route-112 at Existing Site Driveway	EB	LTR	15.8	C	15.8	C
	WB	LTR	17.0	C	17.6	C
	NB	LT	0.1	A	0.1	A
		R	0.0	A	0	A
	SB	LTR	0.0	A	0	A

Notes: LOS = Level of Service, Delay = seconds/vehicle

Table 9: Level of Service Summary – PM Peak Hour Signalized Intersection

Signalized Intersections			No Build		Build	
Location	Approach	Movement	Delay (sec)	LOS	Delay (sec)	LOS
NYS Route-112 at Granny Road	EB	L	39.5	D	39.4	D
		TR	68.8	E	69.3	E
	WB	L	50.1	D	51.2	D
		T	51.4	D	51.4	D
		R	3.0	A	3.0	A
	NB	L	10.5	B	10.5	B
		TR	23.0	C	23.1	C
	SB	L	15.7	B	15.8	B
		T	18.7	B	18.8	B
		R	0.2	A	0.2	A
		Intersection	28.0	C	28.1	C
NYS Route-112 at Horseblock Road (CR-16)	EB	L	96.5	F	98.3	F
		T	59.0	E	59.2	E
		R	49.5	D	49.7	D
	WB	L	77.4	E	77.9	E
		T	57.2	E	57.4	E
		R	9.8	A	11.0	B
	NB	L	67.8	E	68.1	E
		T	45.3	D	45.8	D
		R	19.6	B	19.6	B
	SB	L	71.7	E	72.2	E
		T	34.1	C	34.1	C
		R	2.5	A	2.5	A
		Intersection	46.5	D	46.9	D
NYS Route-112 at Proposed Site Driveway	WB	LR	-	-	25.2	C
	NB	TR	-	-	4.6	A
	SB	L	-	-	1.3	A
		T	-	-	2.2	A
		Intersection			3.7	A

Notes: LOS = Level of Service, Delay = seconds/vehicle

Table 10: Level of Service Summary – PM Peak Hour Unsignalized Intersection

Unsignalized Intersection			No Build		Build	
Location	Approach	Movement	Delay (sec)	LOS	Delay (sec)	LOS
NYS Route-112 at Existing Site Driveway	EB	LTR	20.6	C	23.5	C
	WB	LTR	19.9	C	24.6	C
	NB	LT	0.2	A	0.2	A
		R	0.0	A	0.0	A
	SB	LTR	0.0	A	0.2	A

Notes: LOS = Level of Service, Delay = seconds/vehicle

Table 11: Level of Service Summary – SAT Midday Peak Hour Signalized Intersection

Signalized Intersections			No Build		Build	
Location	Approach	Movement	Delay (sec)	LOS	Delay (sec)	LOS
NYS Route-112 at Granny Road	EB	L	34.0	C	34.0	C
		TR	58.4	E	58.4	E
	WB	L	48.7	D	48.7	D
		T	44.4	D	44.4	D
		R	1.1	A	1.1	A
	NB	L	10.2	B	10.2	B
		TR	18.8	B	18.8	B
	SB	L	10.3	B	10.3	B
		T	18.4	B	18.5	B
		R	0.3	A	0.3	A
		Intersection	24.8	C	24.8	C
NYS Route-112 at Horseblock Road (CR-16)	EB	L	122.5	F	122.5	F
		T	48.6	D	48.7	D
		R	41.8	D	41.9	D
	WB	L	74.8	E	75.0	E
		T	47.0	D	47.1	D
		R	9.4	A	9.4	A
	NB	L	48.4	D	48.5	D
		T	35.2	D	35.3	D
		R	15.6	B	15.6	B
	SB	L	47.3	D	47.4	D
		T	29.4	C	29.4	C
		R	0.5	A	0.5	A
		Intersection	39.9	D	40.0	D
NYS Route-112 at Proposed Site Driveway	WB	LR	-	-	34.0	C
	NB	TR	-	-	2.0	A
	SB	L	-	-	1.0	A
		T	-	-	2.0	A
		Intersection			2.1	A

Notes: LOS = Level of Service, Delay = seconds/vehicle

Table 12: Level of Service Summary – SAT Midday Peak Hour Unsignalized Intersection

Unsignalized Intersection			No Build		Build	
Location	Approach	Movement	Delay (sec)	LOS	Delay (sec)	LOS
NYS Route-112 at Existing Site Driveway	EB	LTR	20.9	C	20.2	C
	WB	LTR	18.9	C	18.5	C
	NB	LT	0.2	A	0.2	A
		R	0.0	A	0.0	A
	SB	LTR	0.7	A	0.8	A

Notes: LOS = Level of Service, Delay = seconds/vehicle

NYS Route-112 at Granny Road

In the No Build Condition, the signalized intersection of NYS Route-112 at Granny Road is projected to operate at an overall LOS C during the weekday AM, weekday PM and Saturday midday peak hours. With the construction of the proposed project, the intersection will continue to operate with an overall No Build LOS with minor increases in delays in some individual traffic movements. Therefore, no significant impacts are created by the proposed project and hence no mitigations are required.

NYS Route-112 at Horseblock Road (CR-16)

In the No Build Condition, the signalized intersection of NYS Route-112 at Horseblock Road (CR-16) is projected to operate at an overall LOS C, D and D during the weekday AM, weekday PM and Saturday midday peak hours. With the construction of the proposed project, the intersection will continue to operate with an overall No Build LOS with minor increases in delays in some individual traffic movements. Therefore, no significant impacts are created by the proposed project and hence no mitigations are required.

NYS Route-112 at Proposed Site Driveway

After the construction of the proposed project, the westbound approach of the signalized intersection of NYS Route-112 at Proposed Side Driveway will operate at an overall LOS A during the weekday AM, weekday PM and Saturday midday peak hours.

NYS Route-112 at Existing Site Driveway

In No Building condition, the westbound (stop-controlled) approach of the unsignalized intersection of NYS Route-112 at Existing Site Driveway is projected to operate at LOS C during the weekday AM, weekday PM and Saturday midday peak hours. With the construction of the proposed project, the westbound (stop-controlled) approach will continue to operate at No Build LOS C with minor increase or decease in delay. Therefore, no significant impacts are created by the proposed project.

It should be noted that during the Build condition analysis, the westbound (stop-controlled) approach of the unsignalized intersection of NYS Route-112 at Existing Site Driveway was originally projected to operate at LOS C during the weekday AM and Saturday midday peak hours and at LOS D during the weekday PM peak hour. However, the proposed traffic signal at the southerly site access has been modified to optimize the signal timing in order to improve the overall LOS at the intersection and for the better operation of the unsignalized northerly existing site driveway. The proposed signal for the westbound approach is provided green time only when any vehicle approaches the site driveway and is detected by the traffic signal; otherwise, the main corridor of NYS Route-112 will get maximum green time. As a result, the westbound (stop-controlled) approach of the unsignalized intersection of NYS Route-112 at

Existing Site Driveway will operate at the LOS C during the weekday PM peak hour in the Build Condition.

SITE DRIVEWAY TRAFFIC, SIGNAL WARRANT AND GAP ANALYSES

Access to the site will be provided via a proposed full movement signalized driveway on NYS Route 112 to support facility trucks and employee traffic and an existing unsignalized access on NYS Route 112 to support full movement visitor traffic and right-turn only movement for facility trucks. NYS Route 112 in the vicinity of the site has one travel lane per direction and a two-way center left turn lane that provides southbound left turns into the site.

As can be seen from the trip generation analyses, a significant amount of the traffic that will be generated by the proposed project will be facility trucks that will require longer gaps on NYS Route 112 to safely enter and exit the proposed site access. To determine the gaps that will be required on NYS Route 112 for facility trucks to safely exit driveway onto NYS Route 112, a gap study was conducted at the existing facility in Patchogue. Based on this study, it was determined that gaps ranging from 11 seconds to 20 seconds and a follow-up headway of 4 seconds will be required for trucks to exit the site, depending on the size of the truck. To improve traffic safety for trucks at this driveway, a traffic signal is proposed. To justify the installation of a traffic signal at this driveway, a signal warrant analysis and a gap analysis were conducted.

Signal Warrant Analyses

A signal warrant analysis was performed in accordance with the most recent version of the Federal Manual on Uniform Traffic Control Devices (MUTCD) for the proposed intersection of NYS Route 112 at the Medford Operations Center driveway in Medford, Town of Brookhaven, New York. The detailed warrant report is submitted as a separate document. This warrant analysis was conducted for the future conditions, considering the existing traffic volumes on NYS Route 112 and the anticipated future traffic volumes after the construction of the proposed Medford Operations Center. Of the nine warrants in the MUTCD, only 3 (Warrant 1, Eight-Hour Vehicular Volume, Warrant 2, Four-Hour Vehicular Volume, and Warrant 3, Peak Hour) were considered applicable for evaluation for this location. At this location, NYS Route 112 will be considered the Major Street, and the proposed Medford Operations Center driveway will be considered the Minor Street. The detailed warrant analysis contained are in Appendix E.

From the review of the results of the signal warrant analysis based on the guidelines provided in the MUTCD demonstrates that none of the three (3) referenced signal warrants were met during the weekday for 2026 Build conditions.

Gap Analyses

A gap analysis was conducted for the northbound and southbound NYS Route 112 approaches in the vicinity of the proposed site access driveway. These manual gap counts were conducted concurrently with the turning movement counts. The manual gap count study recorded the number of gaps in the traffic flow for the northbound direction, southbound direction, and two-way combined gaps in both directions along NYS Route 112 at the site access driveway and the length of time (in seconds) of each gap. The gap analysis was conducted for the most critical traffic movement (trucks exiting the site).

According to the gap study conducted at the existing operations center located in Patchogue, the critical gap required for a facility truck to make a turnout at the site is 11 seconds. The following table summarizes the number of gaps greater than 11 seconds recorded on NYS Route 112 and the number of exiting trucks that can be processed during these gaps during the weekday AM and PM peak periods.

Table 13: Number of Gaps Recorded During Peak Hours

Gap Direction	Number of Gaps recorded		
Northbound & Southbound (Combined)	Length of gap	AM Peak Hour (Trucks)	PM Peak Hour (Trucks)
	12-13 secs	6	2
	14-15 secs	3	3
	16-17 secs	1	2
	>17 secs	2	0
Total number of vehicles processed		15	9
Total trucks exiting driveway		35	6

Upon review of Table 13 above, a total of 15 trucks can be processed during the weekday AM peak hour and a total of 9 trucks can be processed during the PM peak hours. Comparing the available gaps and the number of exiting trucks, the available gaps are not sufficient to accommodate the trucks exiting the site during the AM Peak hour. Therefore, the installation of a traffic signal at this driveway is necessary for trucks to adequately and safely exit the site during the analyzed peak periods.

CONCLUSION

Nelson + Pope has investigated the potential traffic impacts associated with the proposed redevelopment of an existing 24-acre parcel into the Medford Operations Center that will include administrative offices, warehousing, and maintenance/repair building for fleet vehicles. The site is the Country Fair property located on NYS Route 112 in Medford, New York. Access to the site will be provided via a proposed full movement signalized driveway on NYS Route 112 to support facility trucks and employee traffic and an existing unsignalized access on NYS Route 112 to support full movement visitor traffic and right-turn only movement for facility trucks.

The following is a summary of this investigation and the findings thereof:

1. The following intersections were studied:
    - NYS Route 112 at Granny Road
    - NYS Route 112 at Site Access
    - NYS Route 112 at Horseblock Road
2. Turning movement traffic counts were collected at the study intersections on Tuesday, April 25, 2023, during the weekday AM (7:00-10:00 AM) and weekday PM (4:00-7:00 PM) peak hours. The weekend turning movement counts were collected on April 22, 2023, during the Saturday midday peak period (10:00 AM to 2:00 PM).
3. Future No Build traffic volumes were determined by applying the annual growth factors for the Town of Brookhaven (1.3% per year) derived from the New York State Department of Transportation (NYSDOT) Long Island Transportation Plan 2000 Study (LITP2000). The site-generated traffic was estimated and distributed to the study intersections and then added to the No Build traffic volumes to generate the future Build traffic volumes.
4. The proposed Medford Operations Center is anticipated to generate 52 trips (10 entering and 42 exiting) during the weekday AM peak hour, 44 trips (31 entering and 13 exiting) during the weekday PM peak hour, and 12 trips (5 entering and 7 exiting) during the Saturday midday peak hour.
5. Capacity analyses were conducted at all study intersections during the weekday AM, weekday PM and Saturday midday peak hours for the 2023 Existing Condition, 2026 No Build Condition and 2026 Build Condition.
6. In the No Build Condition, the signalized intersection of NYS Route-112 at Granny Road is projected to operate at an overall LOS C during the weekday AM, weekday PM and Saturday midday peak hours. With the construction of the proposed project, the intersection will continue to operate with an overall No Build LOS with minor increases in delays in some individual traffic movements. Therefore, no significant impacts are created by the proposed project and hence no mitigations are required.

7. In the No Build Condition, the signalized intersection of NYS Route-112 at Horseblock Road (CR-16) is projected to operate at an overall LOS C, D and D during the weekday AM, weekday PM and Saturday midday peak hours. With the construction of the proposed project, the intersection will continue to operate with an overall No Build LOS with minor increases in delays in some individual traffic movements. Therefore, no significant impacts are created by the proposed project and hence no mitigations are required.
8. After the construction of the proposed project, the westbound approach of the signalized intersection of NYS Route-112 at Proposed Side Driveway will operate at an overall LOS A during the weekday AM, weekday PM and Saturday midday peak hours.
9. In No Building condition, the westbound (stop-controlled) approach of the unsignalized intersection of NYS Route-112 at Existing Site Driveway is projected to operate at LOS C during the weekday AM, weekday PM and Saturday midday peak hours. With the construction of the proposed project, the westbound (stop-controlled) approach will continue to operate at No Build LOS C with minor increase or decrease in delay. Therefore, no significant impacts are created by the proposed project.
10. The signal warrant analysis was performed for the proposed intersection of NYS Route 112 at the Medford Operations Center driveway. From the review of the results of the signal warrant analysis based on the guidelines provided in the MUTCD demonstrates that none of the three (3) referenced signal warrants were met during the weekday for 2026 Build conditions.
11. A gap analysis was conducted for the northbound and southbound NYS Route 112 approaches in the vicinity of the proposed site access driveway. According to the gap study conducted at the existing operations center located in Patchogue, the critical gap required for a facility truck to make a turnout at the site is 11 seconds. Therefore, the number of gaps greater than 11 seconds recorded on NYS Route 112 and the number of exiting trucks that can be processed during these gaps during the weekday AM and PM peak periods were summarized. Based on the gap analysis, a total of 15 trucks can be processed during the weekday AM peak hour and a total of 9 trucks can be processed during the PM peak hours. Comparing the available gaps and the number of exiting trucks, the available gaps are not sufficient to accommodate the trucks exiting the site during the AM Peak hour. Therefore, the installation of a traffic signal at this driveway is necessary for trucks to adequately and safely exit the site during the analyzed peak periods.

Based on the results of the Traffic Impact study as detailed in the body of this report, it is the professional opinion of Nelson + Pope that, constructing the proposed development will not result in any adverse traffic impacts in the study area.

APPENDIX A

DISTRIBUTION SHEETS

NELSON & POPE

AM PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

GROWTH FACTOR: 1.30%
NO. OF YEARS: 3
GROWTH RATE: 1.040

LOCATION	DIR	MVMT	EXISTING VOLUME	SEASONALLY ADJUSTED VOLUMES	AMBIENT NO BUILD VOLUME
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT	48	48	50
		THROUGH	457	457	475
		RIGHT	80	80	83
	SB	LEFT	61	61	63
		THROUGH	505	505	525
		RIGHT	76	76	79
	EB	LEFT	69	69	72
		THROUGH	69	69	72
		RIGHT	69	69	72
	WB	LEFT	136	136	141
		THROUGH	111	111	115
		RIGHT	68	68	71
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT	3	3	3
		THROUGH	588	588	612
		RIGHT	2	2	2
	SB	LEFT	0	0	0
		THROUGH	713	713	742
		RIGHT	7	7	7
	EB	LEFT	2	2	2
		THROUGH	0	0	0
		RIGHT	7	7	7
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	1	1	1
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT	0	0	0
		THROUGH	593	593	617
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	720	720	749
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT	116	116	121
		THROUGH	599	599	623
		RIGHT	222	222	231
	SB	LEFT	187	187	194
		THROUGH	511	511	531
		RIGHT	81	81	84
	EB	LEFT	88	88	92
		THROUGH	287	287	298
		RIGHT	44	44	46
	WB	LEFT	196	196	204
		THROUGH	246	246	256
		RIGHT	181	181	188

NELSON & POPE

AM PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

OTHER
PLANNED
PROJECTS

	VOL
ENTER	
EXIT	
TOTAL	

	VOL
ENTER	
EXIT	
TOTAL	

SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS

LOCATION	DIR	MVMT	%EN	%EX	VOL	%EN	%EX	VOL	SUBTOTAL VOL
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0

NELSON & POPE

AM PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT	50	0	50
		THROUGH	475	0	475
		RIGHT	83	0	83
	SB	LEFT	63	0	63
		THROUGH	525	0	525
		RIGHT	79	0	79
	EB	LEFT	72	0	72
		THROUGH	72	0	72
		RIGHT	72	0	72
	WB	LEFT	141	0	141
		THROUGH	115	0	115
		RIGHT	71	0	71
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT	3	0	3
		THROUGH	612	0	612
		RIGHT	2	0	2
	SB	LEFT	0	0	0
		THROUGH	742	0	742
		RIGHT	7	0	7
	EB	LEFT	2	0	2
		THROUGH	0	0	0
		RIGHT	7	0	7
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	1	0	1
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT	0	0	0
		THROUGH	617	0	617
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	749	0	749
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT	121	0	121
		THROUGH	623	0	623
		RIGHT	231	0	231
	SB	LEFT	194	0	194
		THROUGH	531	0	531
		RIGHT	84	0	84
	EB	LEFT	92	0	92
		THROUGH	298	0	298
		RIGHT	46	0	46
	WB	LEFT	204	0	204
		THROUGH	256	0	256
		RIGHT	188	0	188

NELSON & POPE

AM PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

	VEHICLES TRIPS		TRUCKS TRIPS		SUBTOTAL TRAFFIC GENERATED
	VOL		VOL		
ENTER	6	ENTER	4		
EXIT	7	EXIT	35		
TOTAL	13	TOTAL	39		

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	SUBTOTAL VOL
	NB	LEFT		5	0		5	2	2
NYS ROUTE 112		THROUGH		30	2		30	11	13
AT		RIGHT		5	0		5	2	2
GRANNY ROAD	SB	LEFT			0			0	0
1		THROUGH	30		2	30		1	3
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT	5		0	5		0	0
	WB	LEFT	5		0	5		0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	NB	LEFT			0			0	0
		THROUGH		35	2		30	11	13
NYS ROUTE 112		RIGHT	5		0	5		0	0
AT	SB	LEFT	5		0			0	0
SITE ACCESS (EXISTING)		THROUGH	35		2	40		2	4
2		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT		5	0			0	0
		THROUGH			0			0	0
		RIGHT		5	0		10	4	4
	NB	LEFT			0			0	0
		THROUGH	5		0	5		0	0
NYS ROUTE 112		RIGHT	55		3	55		2	5
AT	SB	LEFT	35		2	40		2	4
SITE ACCESS (PROPOSED)		THROUGH		5	0			0	0
3		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT		55	4		60	21	25
		THROUGH			0			0	0
		RIGHT		35	2		30	11	13
	NB	LEFT			0			0	0
NYS ROUTE 112		THROUGH	40		2	40		2	4
AT		RIGHT			0			0	0
HORSEBLOCK ROAD	SB	LEFT		15	1		15	5	6
4		THROUGH		40	3		40	14	17
		RIGHT		5	0		5	2	2
	EB	LEFT	5		0	5		0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT	15		1	15		1	2

NELSON & POPE

AM PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT	50	2	52
		THROUGH	475	13	488
		RIGHT	83	2	85
	SB	LEFT	63	0	63
		THROUGH	525	3	528
		RIGHT	79	0	79
	EB	LEFT	72	0	72
		THROUGH	72	0	72
		RIGHT	72	0	72
	WB	LEFT	141	0	141
		THROUGH	115	0	115
		RIGHT	71	0	71
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT	3	0	3
		THROUGH	612	13	625
		RIGHT	2	0	2
	SB	LEFT	0	0	0
		THROUGH	742	4	746
		RIGHT	7	0	7
	EB	LEFT	2	0	2
		THROUGH	0	0	0
		RIGHT	7	0	7
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	1	4	5
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT	0	0	0
		THROUGH	617	0	617
		RIGHT	0	5	5
	SB	LEFT	0	4	4
		THROUGH	749	0	749
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	25	25
		THROUGH	0	0	0
		RIGHT	0	13	13
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT	121	0	121
		THROUGH	623	4	627
		RIGHT	231	0	231
	SB	LEFT	194	6	200
		THROUGH	531	17	548
		RIGHT	84	2	86
	EB	LEFT	92	0	92
		THROUGH	298	0	298
		RIGHT	46	0	46
	WB	LEFT	204	0	204
		THROUGH	256	0	256
		RIGHT	188	2	190

NELSON & POPE

PM PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

GROWTH FACTOR: 1.30%
NO. OF YEARS: 3
GROWTH RATE: 1.040

LOCATION	DIR	MVMT	EXISTING VOLUME	SEASONALLY ADJUSTED VOLUMES	AMBIENT NO BUILD VOLUME
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT	81	81	84
		THROUGH	767	767	798
		RIGHT	118	118	123
	SB	LEFT	104	104	108
		THROUGH	544	544	566
		RIGHT	74	74	77
	EB	LEFT	119	119	124
		THROUGH	164	164	171
		RIGHT	64	64	67
	WB	LEFT	116	116	121
		THROUGH	135	135	140
		RIGHT	92	92	96
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT	4	4	4
		THROUGH	973	973	1012
		RIGHT	10	10	10
	SB	LEFT	1	1	1
		THROUGH	734	734	763
		RIGHT	13	13	14
	EB	LEFT	7	7	7
		THROUGH	0	0	0
		RIGHT	4	4	4
	WB	LEFT	3	3	3
		THROUGH	2	2	2
		RIGHT	8	8	8
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT	0	0	0
		THROUGH	987	987	1026
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	741	741	771
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT	187	187	194
		THROUGH	915	915	952
		RIGHT	392	392	408
	SB	LEFT	241	241	251
		THROUGH	633	633	658
		RIGHT	95	95	99
	EB	LEFT	98	98	102
		THROUGH	439	439	457
		RIGHT	69	69	72
	WB	LEFT	178	178	185
		THROUGH	411	411	427
		RIGHT	210	210	218

NELSON & POPE

PM PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

OTHER
PLANNED
PROJECTS

	VOL
ENTER	
EXIT	
TOTAL	

	VOL
ENTER	
EXIT	
TOTAL	

SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS

LOCATION	DIR	MVMT	%EN	%EX	VOL	%EN	%EX	VOL	SUBTOTAL VOL
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0

NELSON & POPE

PM PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT	84	0	84
		THROUGH	798	0	798
		RIGHT	123	0	123
	SB	LEFT	108	0	108
		THROUGH	566	0	566
		RIGHT	77	0	77
	EB	LEFT	124	0	124
		THROUGH	171	0	171
		RIGHT	67	0	67
	WB	LEFT	121	0	121
		THROUGH	140	0	140
		RIGHT	96	0	96
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT	4	0	4
		THROUGH	1012	0	1012
		RIGHT	10	0	10
	SB	LEFT	1	0	1
		THROUGH	763	0	763
		RIGHT	14	0	14
	EB	LEFT	7	0	7
		THROUGH	0	0	0
		RIGHT	4	0	4
	WB	LEFT	3	0	3
		THROUGH	2	0	2
		RIGHT	8	0	8
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT	0	0	0
		THROUGH	1026	0	1026
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	771	0	771
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT	194	0	194
		THROUGH	952	0	952
		RIGHT	408	0	408
	SB	LEFT	251	0	251
		THROUGH	658	0	658
		RIGHT	99	0	99
	EB	LEFT	102	0	102
		THROUGH	457	0	457
		RIGHT	72	0	72
	WB	LEFT	185	0	185
		THROUGH	427	0	427
		RIGHT	218	0	218

NELSON & POPE

PM PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

					VEHICLES TRIPS			TRUCKS TRIPS	SUBTOTAL TRAFFIC GENERATED
					VOL			VOL	
				ENTER	11		ENTER	20	
				EXIT	7		EXIT	6	
				TOTAL	18		TOTAL	26	
LOCATION	**DIR**	**MVMT**	**%EN**	**%EX**	**1 VOL**	**%EN**	**%EX**	**2 VOL**	SUBTOTAL VOL
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT		5	0		5	0	0
		THROUGH		30	2		30	2	4
		RIGHT		5	0		5	0	0
	SB	LEFT			0			0	0
		THROUGH	30		3	30		6	9
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT	5		1	5		1	2
	WB	LEFT	5		1	5		1	2
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT			0			0	0
		THROUGH		35	2		30	2	4
		RIGHT	5		1	5		1	2
	SB	LEFT	5		1			0	1
		THROUGH	35		4	40		8	12
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT		5	0			0	0
		THROUGH			0			0	0
		RIGHT		5	0		10	1	1
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT			0			0	0
		THROUGH	5		1	5		1	2
		RIGHT	55		6	55		11	17
	SB	LEFT	35		4	40		8	12
		THROUGH		5	0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT		55	4		60	4	8
		THROUGH			0			0	0
		RIGHT		35	2		30	2	4
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT			0			0	0
		THROUGH	40		4	40		8	12
		RIGHT			0			0	0
	SB	LEFT		15	1		15	1	2
		THROUGH		40	3		40	2	5
		RIGHT		5	0		0	0	0
	EB	LEFT	5		1	5		1	2
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT	15		2	15		3	5

NELSON & POPE

PM PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT	84	0	84
		THROUGH	798	4	802
		RIGHT	123	0	123
	SB	LEFT	108	0	108
		THROUGH	566	9	575
		RIGHT	77	0	77
	EB	LEFT	124	0	124
		THROUGH	171	0	171
		RIGHT	67	2	69
	WB	LEFT	121	2	123
		THROUGH	140	0	140
		RIGHT	96	0	96
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT	4	0	4
		THROUGH	1012	4	1016
		RIGHT	10	2	12
	SB	LEFT	1	1	2
		THROUGH	763	12	775
		RIGHT	14	0	14
	EB	LEFT	7	0	7
		THROUGH	0	0	0
		RIGHT	4	0	4
	WB	LEFT	3	0	3
		THROUGH	2	0	2
		RIGHT	8	1	9
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT	0	0	0
		THROUGH	1026	2	1028
		RIGHT	0	17	17
	SB	LEFT	0	12	12
		THROUGH	771	0	771
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	8	8
		THROUGH	0	0	0
		RIGHT	0	4	4
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT	194	0	194
		THROUGH	952	12	964
		RIGHT	408	0	408
	SB	LEFT	251	2	253
		THROUGH	658	5	663
		RIGHT	99	0	99
	EB	LEFT	102	2	104
		THROUGH	457	0	457
		RIGHT	72	0	72
	WB	LEFT	185	0	185
		THROUGH	427	0	427
		RIGHT	218	5	223

NELSON & POPE

SAT PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

GROWTH FACTOR: 1.30%
NO. OF YEARS: 3
GROWTH RATE: 1.040

LOCATION	DIR	MVMT	EXISTING VOLUME	SEASONALLY ADJUSTED VOLUMES	AMBIENT NO BUILD VOLUME
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT	71	71	74
		THROUGH	593	593	617
		RIGHT	121	121	126
	SB	LEFT	55	55	57
		THROUGH	579	579	602
		RIGHT	81	81	84
	EB	LEFT	84	84	87
		THROUGH	119	119	124
		RIGHT	85	85	88
	WB	LEFT	134	134	139
		THROUGH	101	101	105
		RIGHT	72	72	75
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT	4	4	4
		THROUGH	753	753	783
		RIGHT	38	38	40
	SB	LEFT	19	19	20
		THROUGH	780	780	811
		RIGHT	3	3	3
	EB	LEFT	5	5	5
		THROUGH	0	0	0
		RIGHT	1	1	1
	WB	LEFT	14	14	15
		THROUGH	0	0	0
		RIGHT	17	17	18
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT	0	0	0
		THROUGH	795	795	827
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	795	795	827
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT	153	153	159
		THROUGH	657	657	683
		RIGHT	351	351	365
	SB	LEFT	251	251	261
		THROUGH	590	590	614
		RIGHT	81	81	84
	EB	LEFT	116	116	121
		THROUGH	432	432	449
		RIGHT	76	76	79
	WB	LEFT	188	188	196
		THROUGH	376	376	391
		RIGHT	185	185	192

NELSON & POPE

SAT PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

OTHER
PLANNED
PROJECTS

	VOL
ENTER	
EXIT	
TOTAL	

	VOL
ENTER	
EXIT	
TOTAL	

LOCATION	DIR	MVMT	%EN	%EX	VOL	%EN	%EX	VOL	SUBTOTAL VOL
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	SB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0

NELSON & POPE

SAT PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT	74	0	74
		THROUGH	617	0	617
		RIGHT	126	0	126
	SB	LEFT	57	0	57
		THROUGH	602	0	602
		RIGHT	84	0	84
	EB	LEFT	87	0	87
		THROUGH	124	0	124
		RIGHT	88	0	88
	WB	LEFT	139	0	139
		THROUGH	105	0	105
		RIGHT	75	0	75
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT	4	0	4
		THROUGH	783	0	783
		RIGHT	40	0	40
	SB	LEFT	20	0	20
		THROUGH	811	0	811
		RIGHT	3	0	3
	EB	LEFT	5	0	5
		THROUGH	0	0	0
		RIGHT	1	0	1
	WB	LEFT	15	0	15
		THROUGH	0	0	0
		RIGHT	18	0	18
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT	0	0	0
		THROUGH	827	0	827
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	827	0	827
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT	159	0	159
		THROUGH	683	0	683
		RIGHT	365	0	365
	SB	LEFT	261	0	261
		THROUGH	614	0	614
		RIGHT	84	0	84
	EB	LEFT	121	0	121
		THROUGH	449	0	449
		RIGHT	79	0	79
	WB	LEFT	196	0	196
		THROUGH	391	0	391
		RIGHT	192	0	192

NELSON & POPE

SAT PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

	VEHICLES TRIPS		TRUCKS TRIPS		SUBTOTAL TRAFFIC GENERATED
	VOL		VOL		
ENTER	5	ENTER	0		
EXIT	5	EXIT	2		
TOTAL	10	TOTAL	2		

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	1 VOL	SUBTOTAL VOL
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT		5	0		5	0	0
		THROUGH		30	2		30	1	3
		RIGHT		5	0		5	0	0
	SB	LEFT			0			0	0
		THROUGH	30		2	30		0	2
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT	5		0	5		0	0
	WB	LEFT	5		0	5		0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT			0			0	0
		THROUGH		35	2		30	1	3
		RIGHT	5		0	5		0	0
	SB	LEFT	5		0			0	0
		THROUGH	35		2	40		0	2
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT		5	0			0	0
		THROUGH			0			0	0
		RIGHT		5	0		10	0	0
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT			0			0	0
		THROUGH	5		0	5		0	0
		RIGHT	55		3	55		0	3
	SB	LEFT	35		2	40		0	2
		THROUGH		5	0			0	0
		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT		55	3		60	1	4
		THROUGH			0			0	0
		RIGHT		35	2		30	1	3
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT			0			0	0
		THROUGH	40		2	40		0	2
		RIGHT			0			0	0
	SB	LEFT		15	1		15	0	1
		THROUGH		40	2		40	1	3
		RIGHT		5	0		5	0	0
	EB	LEFT	5		0	5		0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT	15		1	15		0	1

NELSON & POPE

SAT PEAK HOUR
Proposed PSEG Facility, Medford
N&P Project No. 08204

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
NYS ROUTE 112 AT GRANNY ROAD 1	NB	LEFT	74	0	74
		THROUGH	617	3	620
		RIGHT	126	0	126
	SB	LEFT	57	0	57
		THROUGH	602	2	604
		RIGHT	84	0	84
	EB	LEFT	87	0	87
		THROUGH	124	0	124
		RIGHT	88	0	88
	WB	LEFT	139	0	139
		THROUGH	105	0	105
		RIGHT	75	0	75
NYS ROUTE 112 AT SITE ACCESS (EXISTING) 2	NB	LEFT	4	0	4
		THROUGH	783	3	786
		RIGHT	40	0	40
	SB	LEFT	20	0	20
		THROUGH	811	2	813
		RIGHT	3	0	3
	EB	LEFT	5	0	5
		THROUGH	0	0	0
		RIGHT	1	0	1
	WB	LEFT	15	0	15
		THROUGH	0	0	0
		RIGHT	18	0	18
NYS ROUTE 112 AT SITE ACCESS (PROPOSED) 3	NB	LEFT	0	0	0
		THROUGH	827	0	827
		RIGHT	0	3	3
	SB	LEFT	0	2	2
		THROUGH	827	0	827
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	4	4
		THROUGH	0	0	0
		RIGHT	0	3	3
NYS ROUTE 112 AT HORSEBLOCK ROAD 4	NB	LEFT	159	0	159
		THROUGH	683	2	685
		RIGHT	365	0	365
	SB	LEFT	261	1	262
		THROUGH	614	3	617
		RIGHT	84	0	84
	EB	LEFT	121	0	121
		THROUGH	449	0	449
		RIGHT	79	0	79
	WB	LEFT	196	0	196
		THROUGH	391	0	391
		RIGHT	192	1	193

TURNING MOVEMENT COUNTS (TMCs)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 1-RT 112 AT GRANNY RD-SAT
Site Code:
Start Date: 04-22-2023

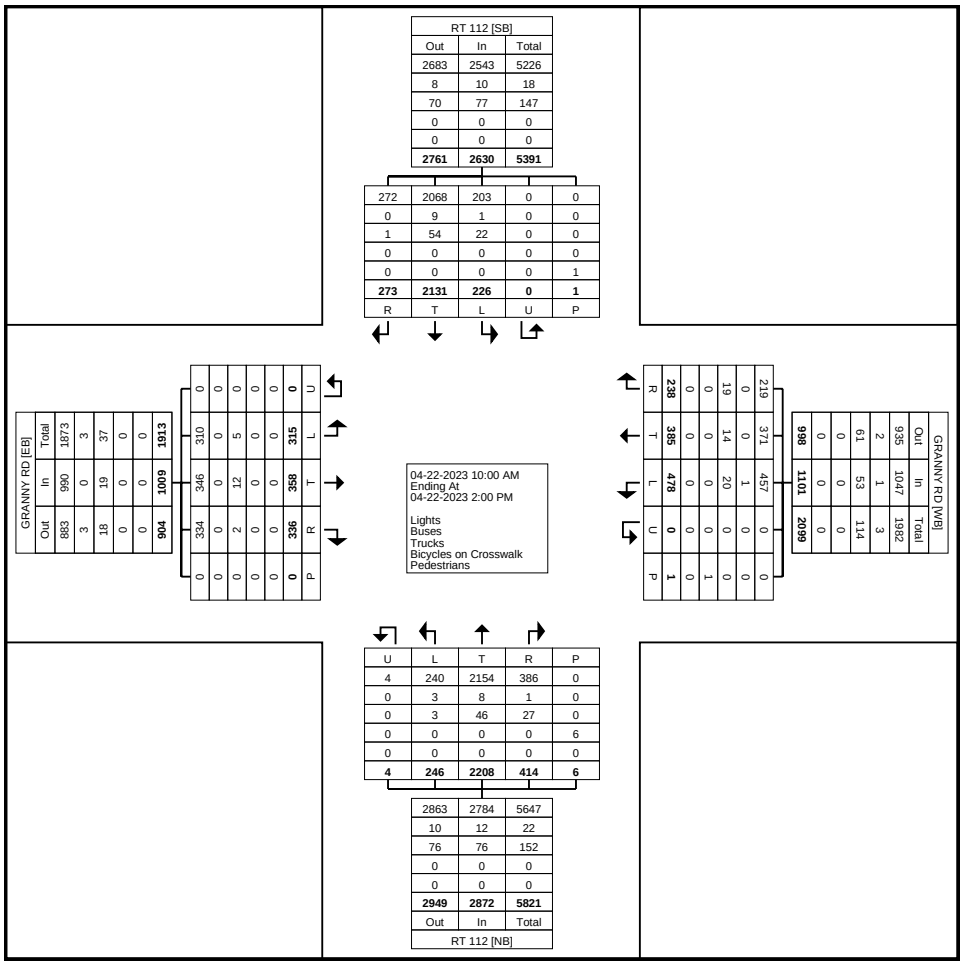
Turning Movement Data

Start Time	RT 112 Southbound						GRANNY RD Westbound						RT 112 Northbound						GRANNY RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
10:00 AM	13	117	21	0	0	151	24	31	12	0	0	67	17	118	21	0	0	156	14	15	21	0	0	50	424
10:15 AM	9	106	11	0	0	126	26	21	14	0	0	61	11	117	21	0	1	149	18	24	21	0	0	63	399
10:30 AM	22	128	14	0	0	164	28	25	15	0	0	68	15	123	20	0	0	158	19	17	37	0	0	73	463
10:45 AM	10	120	13	0	1	143	31	27	11	0	0	69	13	127	31	0	0	171	21	20	24	0	0	65	448
Hourly Total	54	471	59	0	1	584	109	104	52	0	0	265	56	485	93	0	1	634	72	76	103	0	0	251	1734
11:00 AM	10	139	15	0	0	164	31	31	7	0	0	69	17	120	30	0	0	167	19	17	12	0	0	48	448
11:15 AM	9	113	30	0	0	152	24	15	14	0	0	53	14	144	20	0	0	178	9	17	9	0	0	35	418
11:30 AM	16	132	16	0	0	164	24	20	17	0	0	61	5	142	22	0	0	169	21	17	16	0	0	54	448
11:45 AM	17	129	19	0	0	165	28	21	14	0	0	63	14	151	29	3	2	197	20	19	22	0	0	61	486
Hourly Total	52	513	80	0	0	645	107	87	52	0	0	246	50	557	101	3	2	711	69	70	59	0	0	198	1800
12:00 PM	18	149	19	0	0	186	46	17	16	0	0	79	14	155	26	0	0	195	27	16	34	0	0	77	537
12:15 PM	24	140	9	0	0	173	37	30	13	0	0	80	16	142	24	0	3	182	22	35	17	0	0	74	509
12:30 PM	10	122	9	0	0	141	27	21	16	0	0	64	21	141	17	0	0	179	20	23	18	0	0	61	445
12:45 PM	16	137	19	0	0	172	28	24	19	0	1	71	16	140	35	0	0	191	15	28	22	0	0	65	499
Hourly Total	68	548	56	0	0	672	138	92	64	0	1	294	67	578	102	0	3	747	84	102	91	0	0	277	1990
1:00 PM	17	151	17	0	0	185	43	23	15	0	0	81	15	152	33	1	0	201	25	29	17	0	0	71	538
1:15 PM	10	144	24	0	0	178	24	32	29	0	0	85	21	158	26	0	0	205	22	26	25	0	0	73	541
1:30 PM	12	147	21	0	0	180	39	22	9	0	0	70	18	143	27	0	0	188	22	36	21	0	0	79	517
1:45 PM	13	157	16	0	0	186	18	25	17	0	0	60	19	135	32	0	0	186	21	19	20	0	0	60	492
Hourly Total	52	599	78	0	0	729	124	102	70	0	0	296	73	588	118	1	0	780	90	110	83	0	0	283	2088
Grand Total	226	2131	273	0	1	2630	478	385	238	0	1	1101	246	2208	414	4	6	2872	315	358	336	0	0	1009	7612
Approach %	8.6	81.0	10.4	0.0	-	-	43.4	35.0	21.6	0.0	-	-	8.6	76.9	14.4	0.1	-	-	31.2	35.5	33.3	0.0	-	-	-
Total %	3.0	28.0	3.6	0.0	-	34.6	6.3	5.1	3.1	0.0	-	14.5	3.2	29.0	5.4	0.1	-	37.7	4.1	4.7	4.4	0.0	-	13.3	-
Lights	203	2068	272	0	-	2543	457	371	219	0	-	1047	240	2154	386	4	-	2784	310	346	334	0	-	990	7364
% Lights	89.8	97.0	99.6	-	-	96.7	95.6	96.4	92.0	-	-	95.1	97.6	97.6	93.2	100.0	-	96.9	98.4	96.6	99.4	-	-	98.1	96.7
Buses	1	9	0	0	-	10	1	0	0	0	-	1	3	8	1	0	-	12	0	0	0	0	-	0	23
% Buses	0.4	0.4	0.0	-	-	0.4	0.2	0.0	0.0	-	-	0.1	1.2	0.4	0.2	0.0	-	0.4	0.0	0.0	0.0	-	-	0.0	0.3
Trucks	22	54	1	0	-	77	20	14	19	0	-	53	3	46	27	0	-	76	5	12	2	0	-	19	225
% Trucks	9.7	2.5	0.4	-	-	2.9	4.2	3.6	8.0	-	-	4.8	1.2	2.1	6.5	0.0	-	2.6	1.6	3.4	0.6	-	-	1.9	3.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 1-RT 112 AT GRANNY RD-SAT
Site Code:
Start Date: 04-22-2023



Turning Movement Data Plot

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 1-RT 112 AT GRANNY RD-SAT
Site Code:
Start Date: 04-22-2023

Turning Movement Peak Hour Data (11:00 AM)

Start Time	RT 112 Southbound						GRANNY RD Westbound						RT 112 Northbound						GRANNY RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
11:00 AM	10	139	15	0	0	164	31	31	7	0	0	69	17	120	30	0	0	167	19	17	12	0	0	48	448
11:15 AM	9	113	30	0	0	152	24	15	14	0	0	53	14	144	20	0	0	178	9	17	9	0	0	35	418
11:30 AM	16	132	16	0	0	164	24	20	17	0	0	61	5	142	22	0	0	169	21	17	16	0	0	54	448
11:45 AM	17	129	19	0	0	165	28	21	14	0	0	63	14	151	29	3	2	197	20	19	22	0	0	61	486
Total	52	513	80	0	0	645	107	87	52	0	0	246	50	557	101	3	2	711	69	70	59	0	0	198	1800
Approach %	8.1	79.5	12.4	0.0	-	-	43.5	35.4	21.1	0.0	-	-	7.0	78.3	14.2	0.4	-	-	34.8	35.4	29.8	0.0	-	-	-
Total %	2.9	28.5	4.4	0.0	-	35.8	5.9	4.8	2.9	0.0	-	13.7	2.8	30.9	5.6	0.2	-	39.5	3.8	3.9	3.3	0.0	-	11.0	-
PHF	0.765	0.923	0.667	0.000	-	0.977	0.863	0.702	0.765	0.000	-	0.891	0.735	0.922	0.842	0.250	-	0.902	0.821	0.921	0.670	0.000	-	0.811	0.926
Lights	45	493	80	0	-	618	104	82	47	0	-	233	49	544	91	3	-	687	67	66	59	0	-	192	1730
% Lights	86.5	96.1	100.0	-	-	95.8	97.2	94.3	90.4	-	-	94.7	98.0	97.7	90.1	100.0	-	96.6	97.1	94.3	100.0	-	-	97.0	96.1
Buses	0	3	0	0	-	3	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	5
% Buses	0.0	0.6	0.0	-	-	0.5	0.0	0.0	0.0	-	-	0.0	0.0	0.4	0.0	0.0	-	0.3	0.0	0.0	0.0	-	-	0.0	0.3
Trucks	7	17	0	0	-	24	3	5	5	0	-	13	1	11	10	0	-	22	2	4	0	0	-	6	65
% Trucks	13.5	3.3	0.0	-	-	3.7	2.8	5.7	9.6	-	-	5.3	2.0	2.0	9.9	0.0	-	3.1	2.9	5.7	0.0	-	-	3.0	3.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-

Traffic Databank LLC
716 S 6th Avenue

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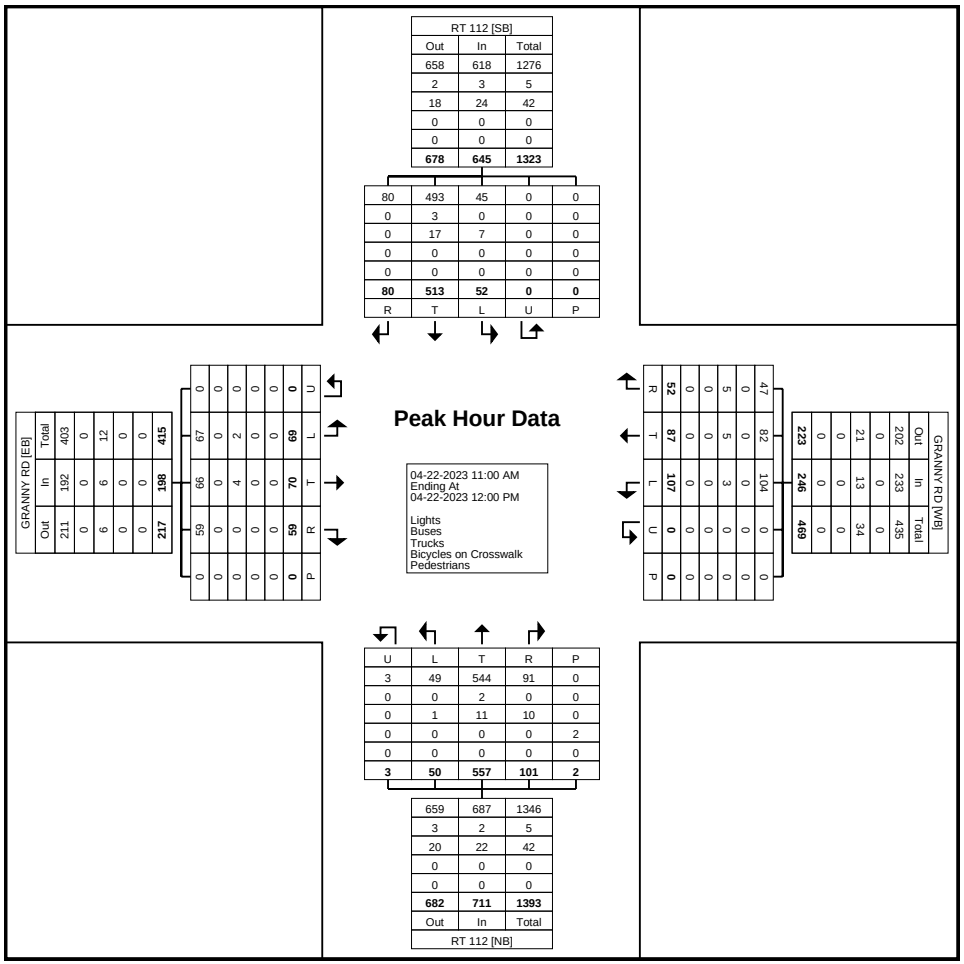
Count Name: 1-RT 112 AT GRANNY RD-SAT
Site Code:
Start Date: 04-22-2023



Turning Movement Peak Hour Data Plot (11:00 AM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 1-RT 112 AT GRANNY RD-SAT
Site Code:
Start Date: 04-22-2023

Turning Movement Peak Hour Data (12:45 PM)

Start Time	RT 112 Southbound						GRANNY RD Westbound						RT 112 Northbound						GRANNY RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
12:45 PM	16	137	19	0	0	172	28	24	19	0	1	71	16	140	35	0	0	191	15	28	22	0	0	65	499
1:00 PM	17	151	17	0	0	185	43	23	15	0	0	81	15	152	33	1	0	201	25	29	17	0	0	71	538
1:15 PM	10	144	24	0	0	178	24	32	29	0	0	85	21	158	26	0	0	205	22	26	25	0	0	73	541
1:30 PM	12	147	21	0	0	180	39	22	9	0	0	70	18	143	27	0	0	188	22	36	21	0	0	79	517
Total	55	579	81	0	0	715	134	101	72	0	1	307	70	593	121	1	0	785	84	119	85	0	0	288	2095
Approach %	7.7	81.0	11.3	0.0	-	-	43.6	32.9	23.5	0.0	-	-	8.9	75.5	15.4	0.1	-	-	29.2	41.3	29.5	0.0	-	-	-
Total %	2.6	27.6	3.9	0.0	-	34.1	6.4	4.8	3.4	0.0	-	14.7	3.3	28.3	5.8	0.0	-	37.5	4.0	5.7	4.1	0.0	-	13.7	-
PHF	0.809	0.959	0.844	0.000	-	0.966	0.779	0.789	0.621	0.000	-	0.903	0.833	0.938	0.864	0.250	-	0.957	0.840	0.826	0.850	0.000	-	0.911	0.968
Lights	52	564	81	0	-	697	128	98	67	0	-	293	69	584	120	1	-	774	82	117	84	0	-	283	2047
% Lights	94.5	97.4	100.0	-	-	97.5	95.5	97.0	93.1	-	-	95.4	98.6	98.5	99.2	100.0	-	98.6	97.6	98.3	98.8	-	-	98.3	97.7
Buses	0	3	0	0	-	3	1	0	0	0	-	1	0	2	0	0	-	2	0	0	0	0	-	0	6
% Buses	0.0	0.5	0.0	-	-	0.4	0.7	0.0	0.0	-	-	0.3	0.0	0.3	0.0	0.0	-	0.3	0.0	0.0	0.0	-	-	0.0	0.3
Trucks	3	12	0	0	-	15	5	3	5	0	-	13	1	7	1	0	-	9	2	2	1	0	-	5	42
% Trucks	5.5	2.1	0.0	-	-	2.1	3.7	3.0	6.9	-	-	4.2	1.4	1.2	0.8	0.0	-	1.1	2.4	1.7	1.2	-	-	1.7	2.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
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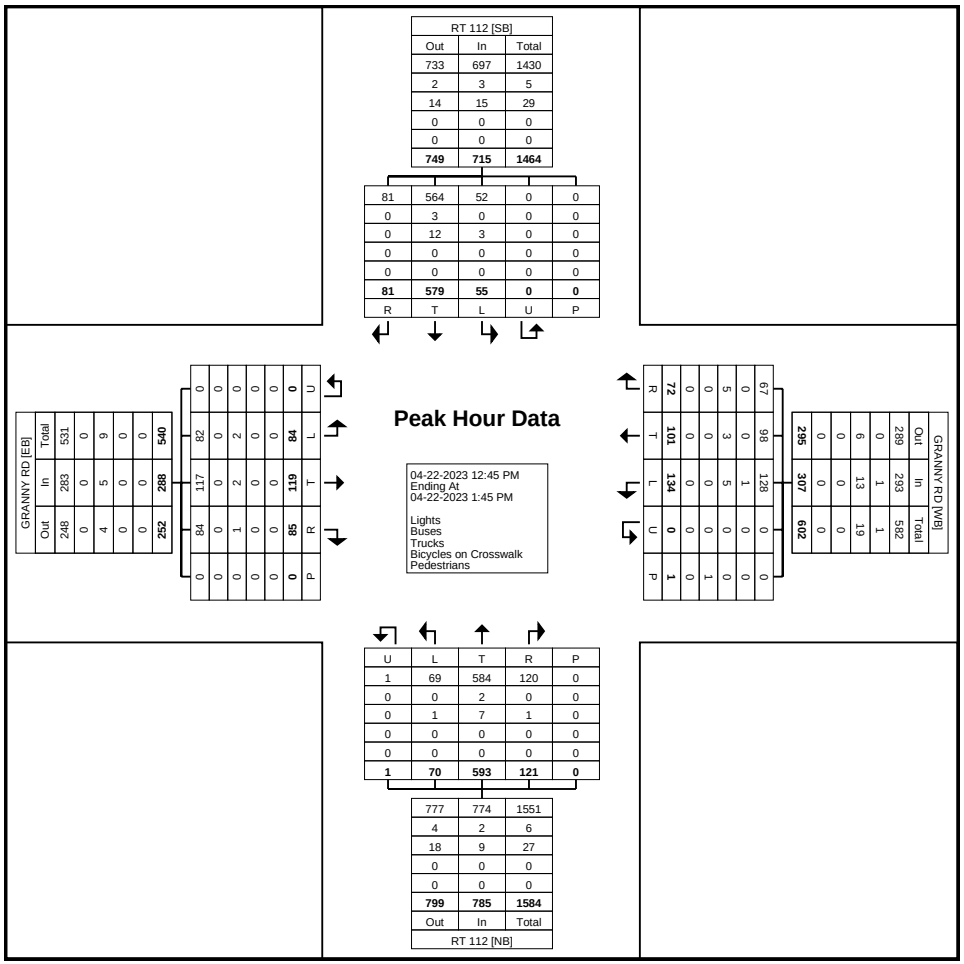
Count Name: 1-RT 112 AT GRANNY RD-SAT
Site Code:
Start Date: 04-22-2023



Turning Movement Peak Hour Data Plot (12:45 PM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 1-RT 112 AT GRANNY RD-TUE
Site Code:
Start Date: 04-25-2023

Turning Movement Data

Start Time	RT 112 Southbound						GRANNY RD Westbound						RT 112 Northbound						GRANNY RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	8	121	8	0	0	137	40	24	18	0	0	82	8	80	10	0	0	98	11	9	28	0	0	48	365
7:15 AM	9	149	17	0	0	175	31	22	15	0	0	68	8	87	13	0	0	108	14	22	29	0	0	65	416
7:30 AM	9	137	17	0	0	163	33	21	12	0	0	66	11	123	15	0	0	149	19	20	22	0	0	61	439
7:45 AM	15	138	15	0	0	168	21	19	23	0	0	63	5	108	12	0	0	125	20	19	11	0	0	50	406
Hourly Total	41	545	57	0	0	643	125	86	68	0	0	279	32	398	50	0	0	480	64	70	90	0	0	224	1626
8:00 AM	15	148	11	0	0	174	26	19	12	0	0	57	7	117	25	0	0	149	16	22	11	0	0	49	429
8:15 AM	14	116	16	0	0	146	32	24	16	0	0	72	7	105	14	0	0	126	17	12	11	0	0	40	384
8:30 AM	15	128	20	0	0	163	34	27	12	0	0	73	12	137	19	0	0	168	20	15	13	0	0	48	452
8:45 AM	16	125	19	0	0	160	41	36	11	0	0	88	10	111	17	0	0	138	17	17	19	0	0	53	439
Hourly Total	60	517	66	0	0	643	133	106	51	0	0	290	36	470	75	0	0	581	70	66	54	0	0	190	1704
9:00 AM	13	115	22	0	0	150	30	29	20	0	0	79	15	95	23	0	0	133	12	17	21	0	0	50	412
9:15 AM	17	137	15	0	0	169	31	19	25	0	0	75	11	114	21	0	0	146	20	20	16	0	0	56	446
9:30 AM	24	133	14	0	0	171	14	19	11	0	0	44	7	126	23	0	0	156	11	21	15	0	0	47	418
9:45 AM	7	111	17	0	0	135	32	16	9	0	0	57	13	120	21	0	0	154	14	19	17	0	0	50	396
Hourly Total	61	496	68	0	0	625	107	83	65	0	0	255	46	455	88	0	0	589	57	77	69	0	0	203	1672
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	17	121	20	0	0	158	25	31	18	0	0	74	21	181	26	0	0	228	22	41	21	0	0	84	544
4:15 PM	33	141	22	0	0	196	23	37	14	0	0	74	23	180	32	0	0	235	29	32	15	0	0	76	581
4:30 PM	26	154	15	0	0	195	32	33	22	0	0	87	24	189	30	0	0	243	30	47	14	0	0	91	616
4:45 PM	23	127	25	0	1	175	37	35	26	0	0	98	11	194	25	0	0	230	30	44	15	0	1	89	592
Hourly Total	99	543	82	0	1	724	117	136	80	0	0	333	79	744	113	0	0	936	111	164	65	0	1	340	2333
5:00 PM	22	122	12	0	0	156	24	30	30	0	0	84	23	204	31	0	0	258	30	41	20	0	1	91	589
5:15 PM	20	117	17	0	0	154	28	33	26	0	0	87	18	185	38	0	0	241	32	39	14	0	0	85	567
5:30 PM	26	114	23	0	0	163	18	32	16	0	0	66	18	196	31	0	0	245	25	46	14	0	0	85	559
5:45 PM	18	91	17	0	0	126	31	31	15	0	1	77	18	159	37	0	0	214	30	42	14	0	1	86	503
Hourly Total	86	444	69	0	0	599	101	126	87	0	1	314	77	744	137	0	0	958	117	168	62	0	2	347	2218
6:00 PM	15	113	17	0	0	145	21	26	16	0	0	63	16	156	38	0	0	210	23	51	19	0	0	93	511
6:15 PM	14	106	10	0	0	130	23	25	14	0	0	62	30	160	37	0	0	227	22	35	23	0	0	80	499
6:30 PM	13	116	18	0	0	147	27	23	19	0	1	69	15	163	43	0	0	221	13	32	21	0	0	66	503
6:45 PM	14	99	22	0	0	135	17	19	16	0	1	52	12	147	33	0	0	192	19	36	7	0	0	62	441
Hourly Total	56	434	67	0	0	557	88	93	65	0	2	246	73	626	151	0	0	850	77	154	70	0	0	301	1954
Grand Total	403	2979	409	0	1	3791	671	630	416	0	3	1717	343	3437	614	0	0	4394	496	699	410	0	3	1605	11507
Approach %	10.6	78.6	10.8	0.0	-	-	39.1	36.7	24.2	0.0	-	-	7.8	78.2	14.0	0.0	-	-	30.9	43.6	25.5	0.0	-	-	-
Total %	3.5	25.9	3.6	0.0	-	32.9	5.8	5.5	3.6	0.0	-	14.9	3.0	29.9	5.3	0.0	-	38.2	4.3	6.1	3.6	0.0	-	13.9	-
Lights	337	2759	382	0	-	3478	617	603	377	0	-	1597	326	3236	532	0	-	4094	474	660	385	0	-	1519	10688
% Lights	83.6	92.6	93.4	-	-	91.7	92.0	95.7	90.6	-	-	93.0	95.0	94.2	86.6	-	-	93.2	95.6	94.4	93.9	-	-	94.6	92.9
Buses	41	32	8	0	-	81	11	10	9	0	-	30	12	48	30	0	-	90	11	8	17	0	-	36	237
% Buses	10.2	1.1	2.0	-	-	2.1	1.6	1.6	2.2	-	-	1.7	3.5	1.4	4.9	-	-	2.0	2.2	1.1	4.1	-	-	2.2	2.1

Trucks	25	188	19	0	-	232	43	17	30	0	-	90	5	153	52	0	-	210	11	31	8	0	-	50	582
% Trucks	6.2	6.3	4.6	-	-	6.1	6.4	2.7	7.2	-	-	5.2	1.5	4.5	8.5	-	-	4.8	2.2	4.4	2.0	-	-	3.1	5.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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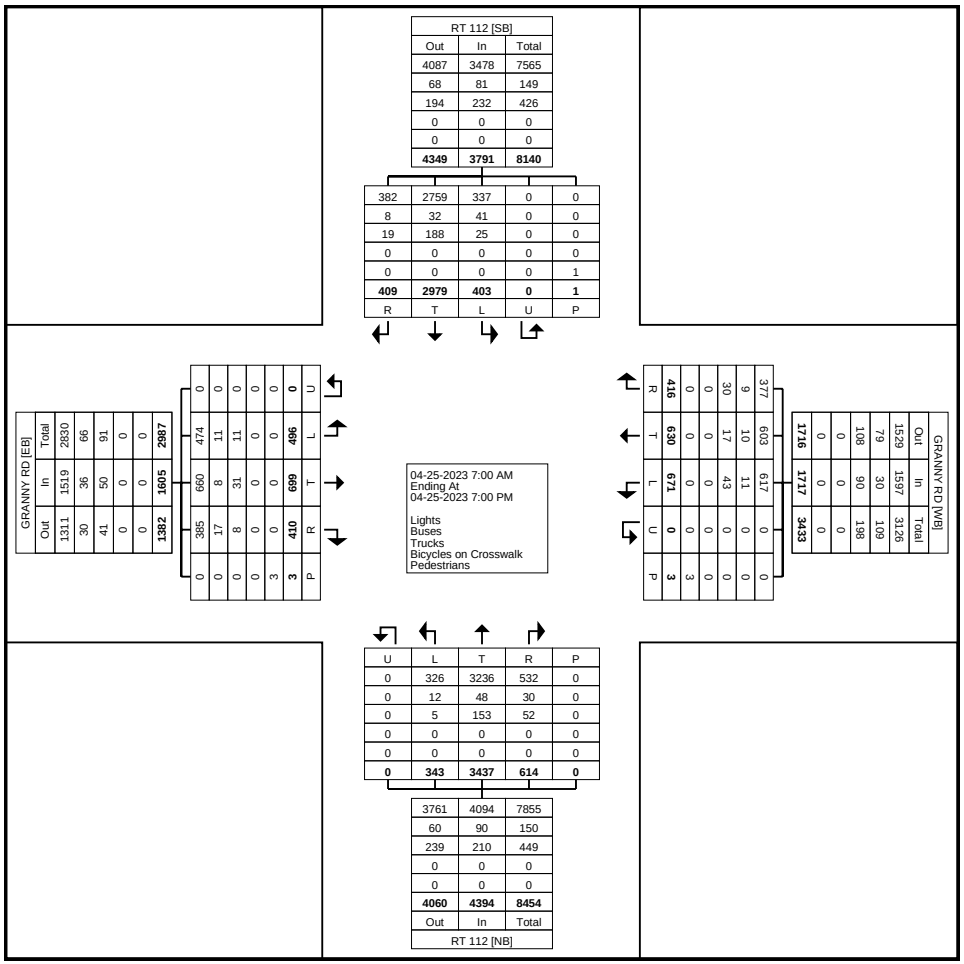
Start Date: 04-25-2023



Turning Movement Data Plot

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 1-RT 112 AT GRANNY RD-TUE
Site Code:
Start Date: 04-25-2023

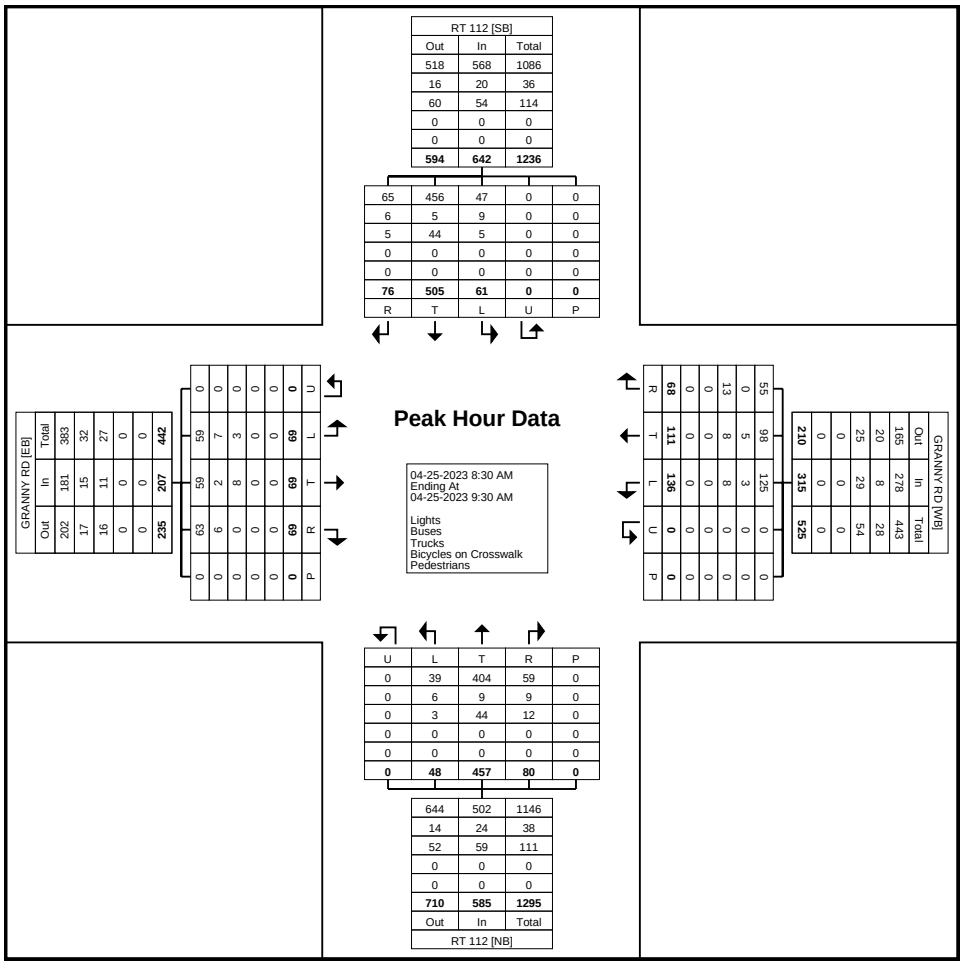
Turning Movement Peak Hour Data (8:30 AM)

Start Time	RT 112 Southbound						GRANNY RD Westbound						RT 112 Northbound						GRANNY RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:30 AM	15	128	20	0	0	163	34	27	12	0	0	73	12	137	19	0	0	168	20	15	13	0	0	48	452
8:45 AM	16	125	19	0	0	160	41	36	11	0	0	88	10	111	17	0	0	138	17	17	19	0	0	53	439
9:00 AM	13	115	22	0	0	150	30	29	20	0	0	79	15	95	23	0	0	133	12	17	21	0	0	50	412
9:15 AM	17	137	15	0	0	169	31	19	25	0	0	75	11	114	21	0	0	146	20	20	16	0	0	56	446
Total	61	505	76	0	0	642	136	111	68	0	0	315	48	457	80	0	0	585	69	69	69	0	0	207	1749
Approach %	9.5	78.7	11.8	0.0	-	-	43.2	35.2	21.6	0.0	-	-	8.2	78.1	13.7	0.0	-	-	33.3	33.3	33.3	0.0	-	-	-
Total %	3.5	28.9	4.3	0.0	-	36.7	7.8	6.3	3.9	0.0	-	18.0	2.7	26.1	4.6	0.0	-	33.4	3.9	3.9	3.9	0.0	-	11.8	-
PHF	0.897	0.922	0.864	0.000	-	0.950	0.829	0.771	0.680	0.000	-	0.895	0.800	0.834	0.870	0.000	-	0.871	0.863	0.863	0.821	0.000	-	0.924	0.967
Lights	47	456	65	0	-	568	125	98	55	0	-	278	39	404	59	0	-	502	59	59	63	0	-	181	1529
% Lights	77.0	90.3	85.5	-	-	88.5	91.9	88.3	80.9	-	-	88.3	81.3	88.4	73.8	-	-	85.8	85.5	85.5	91.3	-	-	87.4	87.4
Buses	9	5	6	0	-	20	3	5	0	0	-	8	6	9	9	0	-	24	7	2	6	0	-	15	67
% Buses	14.8	1.0	7.9	-	-	3.1	2.2	4.5	0.0	-	-	2.5	12.5	2.0	11.3	-	-	4.1	10.1	2.9	8.7	-	-	7.2	3.8
Trucks	5	44	5	0	-	54	8	8	13	0	-	29	3	44	12	0	-	59	3	8	0	0	-	11	153
% Trucks	8.2	8.7	6.6	-	-	8.4	5.9	7.2	19.1	-	-	9.2	6.3	9.6	15.0	-	-	10.1	4.3	11.6	0.0	-	-	5.3	8.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 1-RT 112 AT GRANNY RD-TUE
Site Code:
Start Date: 04-25-2023



Turning Movement Peak Hour Data Plot (8:30 AM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 1-RT 112 AT GRANNY RD-TUE
Site Code:
Start Date: 04-25-2023

Turning Movement Peak Hour Data (4:15 PM)

Start Time	RT 112 Southbound						GRANNY RD Westbound						RT 112 Northbound						GRANNY RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:15 PM	33	141	22	0	0	196	23	37	14	0	0	74	23	180	32	0	0	235	29	32	15	0	0	76	581
4:30 PM	26	154	15	0	0	195	32	33	22	0	0	87	24	189	30	0	0	243	30	47	14	0	0	91	616
4:45 PM	23	127	25	0	1	175	37	35	26	0	0	98	11	194	25	0	0	230	30	44	15	0	1	89	592
5:00 PM	22	122	12	0	0	156	24	30	30	0	0	84	23	204	31	0	0	258	30	41	20	0	1	91	589
Total	104	544	74	0	1	722	116	135	92	0	0	343	81	767	118	0	0	966	119	164	64	0	2	347	2378
Approach %	14.4	75.3	10.2	0.0	-	-	33.8	39.4	26.8	0.0	-	-	8.4	79.4	12.2	0.0	-	-	34.3	47.3	18.4	0.0	-	-	-
Total %	4.4	22.9	3.1	0.0	-	30.4	4.9	5.7	3.9	0.0	-	14.4	3.4	32.3	5.0	0.0	-	40.6	5.0	6.9	2.7	0.0	-	14.6	-
PHF	0.788	0.883	0.740	0.000	-	0.921	0.784	0.912	0.767	0.000	-	0.875	0.844	0.940	0.922	0.000	-	0.936	0.992	0.872	0.800	0.000	-	0.953	0.965
Lights	80	511	73	0	-	664	110	133	87	0	-	330	80	748	110	0	-	938	118	159	61	0	-	338	2270
% Lights	76.9	93.9	98.6	-	-	92.0	94.8	98.5	94.6	-	-	96.2	98.8	97.5	93.2	-	-	97.1	99.2	97.0	95.3	-	-	97.4	95.5
Buses	20	5	1	0	-	26	0	1	2	0	-	3	1	7	1	0	-	9	0	1	2	0	-	3	41
% Buses	19.2	0.9	1.4	-	-	3.6	0.0	0.7	2.2	-	-	0.9	1.2	0.9	0.8	-	-	0.9	0.0	0.6	3.1	-	-	0.9	1.7
Trucks	4	28	0	0	-	32	6	1	3	0	-	10	0	12	7	0	-	19	1	4	1	0	-	6	67
% Trucks	3.8	5.1	0.0	-	-	4.4	5.2	0.7	3.3	-	-	2.9	0.0	1.6	5.9	-	-	2.0	0.8	2.4	1.6	-	-	1.7	2.8
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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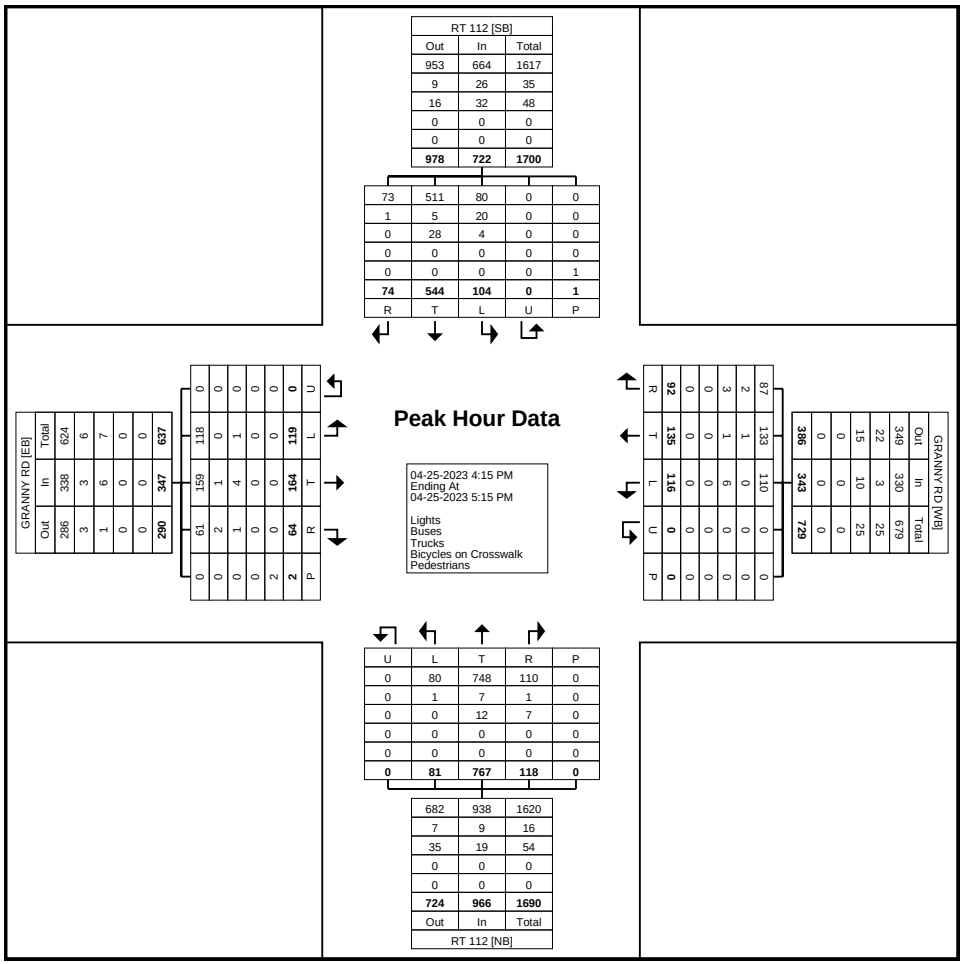
Count Name: 1-RT 112 AT GRANNY RD-TUE
Site Code:
Start Date: 04-25-2023



Turning Movement Peak Hour Data Plot (4:15 PM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 2-RT 112 AT SITE DRIVEWAY-SAT
Site Code:
Start Date: 04-22-2023

Turning Movement Data

Start Time	RT 112 Southbound						SITE DRIVEWAY Westbound						RT 112 Northbound						DRIVEWAY Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	93	1	0	0	94	0	0	0	0	0	0	2	82	0	0	0	84	0	0	0	0	0	0	178
7:15 AM	0	105	1	0	0	106	0	0	0	0	0	0	0	70	0	0	0	70	2	0	1	0	0	3	179
7:30 AM	0	110	0	0	0	110	0	0	0	0	0	0	1	111	0	0	0	112	0	0	0	0	0	0	222
7:45 AM	0	96	0	0	0	96	0	0	0	0	0	0	2	93	0	0	0	95	0	0	0	0	0	0	191
Hourly Total	0	404	2	0	0	406	0	0	0	0	0	0	5	356	0	0	0	361	2	0	1	0	0	3	770
8:00 AM	0	116	1	0	0	117	0	0	0	0	1	0	3	100	0	0	0	103	1	0	0	0	1	1	221
8:15 AM	0	115	2	0	0	117	0	0	1	0	2	1	0	100	0	0	0	100	1	0	1	0	0	2	220
8:30 AM	0	145	3	0	0	148	0	0	0	0	1	0	1	112	0	0	0	113	1	0	1	0	0	2	263
8:45 AM	0	153	3	0	0	156	0	0	1	0	1	1	0	132	1	0	0	133	2	0	2	0	0	4	294
Hourly Total	0	529	9	0	0	538	0	0	2	0	5	2	4	444	1	0	0	449	5	0	4	0	1	9	998
9:00 AM	0	117	2	0	0	119	0	0	0	0	0	0	1	114	0	0	0	115	3	0	1	0	0	4	238
9:15 AM	1	160	1	0	0	162	0	0	0	0	0	0	0	154	0	0	0	154	1	0	1	0	0	2	318
9:30 AM	0	151	1	0	0	152	0	0	0	0	0	0	2	156	0	0	0	158	0	0	1	0	0	1	311
9:45 AM	0	171	1	1	0	173	0	0	0	0	0	0	0	168	0	0	0	168	0	0	0	0	0	0	341
Hourly Total	1	599	5	1	0	606	0	0	0	0	0	0	3	592	0	0	0	595	4	0	3	0	0	7	1208
10:00 AM	0	171	0	0	0	171	0	0	0	0	0	0	2	152	1	0	0	155	1	0	2	0	0	3	329
10:15 AM	1	153	0	2	0	156	0	0	1	0	2	1	2	151	4	0	0	157	0	0	3	0	1	3	317
10:30 AM	0	190	1	0	0	191	0	0	0	0	0	0	0	155	0	0	0	155	1	0	3	0	0	4	350
10:45 AM	2	173	2	0	0	177	0	0	0	0	0	0	2	176	7	0	0	185	1	0	1	0	0	2	364
Hourly Total	3	687	3	2	0	695	0	0	1	0	2	1	6	634	12	0	0	652	3	0	9	0	1	12	1360
11:00 AM	2	189	2	0	0	193	0	0	0	0	0	0	0	150	4	0	0	154	0	0	1	0	0	1	348
11:15 AM	3	150	1	0	0	154	0	0	0	0	0	0	2	164	9	0	0	175	2	0	2	0	0	4	333
11:30 AM	3	172	0	0	0	175	2	0	1	0	0	3	1	156	3	0	0	160	1	0	1	0	1	2	340
11:45 AM	3	182	1	0	0	186	3	0	1	0	0	4	0	174	5	0	0	179	1	0	2	0	0	3	372
Hourly Total	11	693	4	0	0	708	5	0	2	0	0	7	3	644	21	0	0	668	4	0	6	0	1	10	1393
12:00 PM	3	222	5	0	0	230	4	0	3	0	0	7	2	193	5	0	0	200	0	0	2	0	0	2	439
12:15 PM	5	188	0	0	0	193	3	0	2	0	0	5	0	183	5	0	0	188	3	0	3	0	0	6	392
12:30 PM	4	160	2	1	0	167	3	0	4	0	0	7	1	182	4	0	0	187	1	0	0	0	1	1	362
12:45 PM	6	191	0	0	0	197	2	0	0	0	2	2	0	198	3	0	0	201	1	0	1	0	0	2	402
Hourly Total	18	761	7	1	0	787	12	0	9	0	2	21	3	756	17	0	0	776	5	0	6	0	1	11	1595
1:00 PM	4	193	3	0	0	200	3	0	9	0	0	12	1	185	6	0	0	192	3	0	2	0	1	5	409
1:15 PM	1	188	1	0	0	190	3	0	7	0	0	10	2	198	5	0	0	205	2	0	0	0	0	2	407
1:30 PM	5	201	2	0	0	208	3	0	4	0	0	7	2	184	10	0	0	196	1	0	1	0	0	2	413
1:45 PM	6	199	0	0	0	205	4	0	0	0	0	4	0	182	9	0	0	191	1	0	0	0	0	1	401
Hourly Total	16	781	6	0	0	803	13	0	20	0	0	33	5	749	30	0	0	784	7	0	3	0	1	10	1630
2:00 PM	7	192	0	0	0	199	4	0	6	0	2	10	0	189	14	0	0	203	1	0	0	0	0	1	413
2:15 PM	6	161	1	0	0	168	4	0	5	0	0	9	0	209	9	0	0	218	0	0	0	0	0	0	395
2:30 PM	3	182	2	0	0	187	3	0	4	0	0	7	0	205	13	0	0	218	0	0	2	0	0	2	414

2:45 PM	4	176	2	0	0	182	11	0	6	0	0	17	1	197	1	0	0	199	0	0	0	0	2	0	398
Hourly Total	20	711	5	0	0	736	22	0	21	0	2	43	1	800	37	0	0	838	1	0	2	0	2	3	1620
3:00 PM	3	180	2	1	0	186	4	0	9	0	0	13	0	200	4	0	0	204	0	0	2	0	0	2	405
3:15 PM	2	176	0	0	0	178	5	0	3	0	0	8	1	200	4	0	0	205	0	0	0	0	0	0	391
3:30 PM	8	194	0	0	0	202	2	0	5	0	0	7	3	187	8	0	0	198	1	0	1	0	0	2	409
3:45 PM	7	194	0	0	0	201	4	0	12	0	0	16	1	191	11	0	0	203	1	0	0	0	0	1	421
Hourly Total	20	744	2	1	0	767	15	0	29	0	0	44	5	778	27	0	0	810	2	0	3	0	0	5	1626
4:00 PM	3	181	0	0	0	184	4	0	6	0	0	10	3	197	4	0	0	204	1	0	2	0	0	3	401
4:15 PM	6	162	1	0	0	169	2	0	3	0	0	5	0	177	3	0	0	180	1	1	0	0	0	2	356
4:30 PM	5	157	0	0	0	162	13	0	10	0	0	23	2	167	2	0	0	171	3	0	0	0	0	3	359
4:45 PM	5	177	0	0	0	182	7	0	15	0	0	22	0	195	5	0	0	200	2	0	0	0	0	2	406
Hourly Total	19	677	1	0	0	697	26	0	34	0	0	60	5	736	14	0	0	755	7	1	2	0	0	10	1522
5:00 PM	7	188	0	0	0	195	7	0	9	0	0	16	1	168	8	0	0	177	0	0	1	0	1	1	389
5:15 PM	6	162	4	0	0	172	4	0	4	0	0	8	0	190	4	0	0	194	1	0	1	0	0	2	376
5:30 PM	2	137	3	0	0	142	1	0	8	0	0	9	0	172	3	0	0	175	3	0	3	0	0	6	332
5:45 PM	0	149	3	0	0	152	1	0	1	0	1	2	1	166	4	0	0	171	1	0	2	0	0	3	328
Hourly Total	15	636	10	0	0	661	13	0	22	0	1	35	2	696	19	0	0	717	5	0	7	0	1	12	1425
6:00 PM	3	133	2	0	0	138	3	0	5	0	0	8	0	189	1	0	0	190	0	0	0	0	0	0	336
6:15 PM	2	138	1	0	0	141	3	0	3	0	0	6	4	172	0	0	0	176	1	0	2	0	0	3	326
6:30 PM	2	135	0	0	0	137	4	0	1	0	0	5	1	145	1	0	0	147	4	0	2	0	0	6	295
6:45 PM	3	152	2	0	0	157	5	0	5	0	0	10	4	147	2	0	0	153	2	0	2	0	0	4	324
Hourly Total	10	558	5	0	0	573	15	0	14	0	0	29	9	653	4	0	0	666	7	0	6	0	0	13	1281
Grand Total	133	7780	59	5	0	7977	121	0	154	0	12	275	51	7838	182	0	0	8071	52	1	52	0	8	105	16428
Approach %	1.7	97.5	0.7	0.1	-	-	44.0	0.0	56.0	0.0	-	-	0.6	97.1	2.3	0.0	-	-	49.5	1.0	49.5	0.0	-	-	-
Total %	0.8	47.4	0.4	0.0	-	48.6	0.7	0.0	0.9	0.0	-	1.7	0.3	47.7	1.1	0.0	-	49.1	0.3	0.0	0.3	0.0	-	0.6	-
Lights	133	7545	58	5	-	7741	121	0	154	0	-	275	51	7640	182	0	-	7873	51	1	50	0	-	102	15991
% Lights	100.0	97.0	98.3	100.0	-	97.0	100.0	-	100.0	-	-	100.0	100.0	97.5	100.0	-	-	97.5	98.1	100.0	96.2	-	-	97.1	97.3
Buses	0	22	0	0	-	22	0	0	0	0	-	0	0	27	0	0	-	27	0	0	0	0	-	0	49
% Buses	0.0	0.3	0.0	0.0	-	0.3	0.0	-	0.0	-	-	0.0	0.0	0.3	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.3
Trucks	0	213	1	0	-	214	0	0	0	0	-	0	0	171	0	0	-	171	1	0	2	0	-	3	388
% Trucks	0.0	2.7	1.7	0.0	-	2.7	0.0	-	0.0	-	-	0.0	0.0	2.2	0.0	-	-	2.1	1.9	0.0	3.8	-	-	2.9	2.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	33.3	-	-	-	-	-	-	-	-	-	-	-	50.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	8	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	66.7	-	-	-	-	-	-	-	-	-	-	-	50.0	-	-

Traffic Databank LLC
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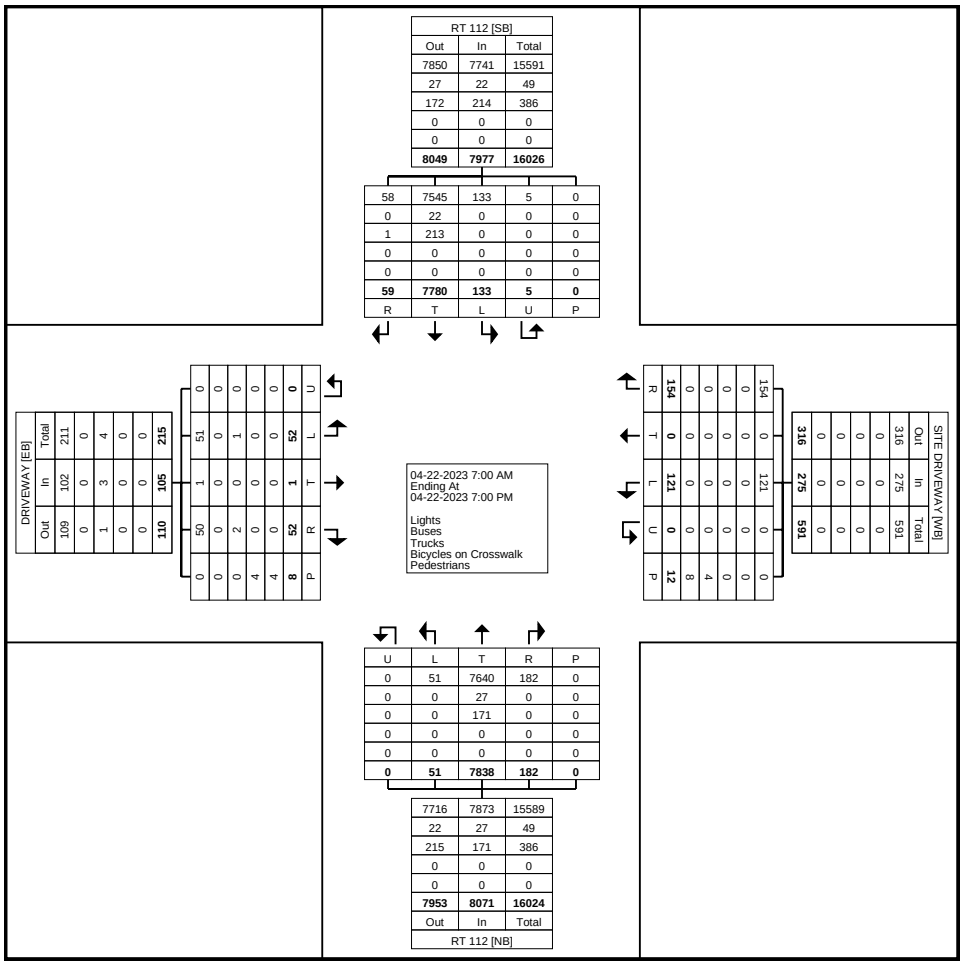
Count Name: 2-RT 112 AT SITE DRIVEWAY-SAT
Site Code:
Start Date: 04-22-2023



Turning Movement Data Plot

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

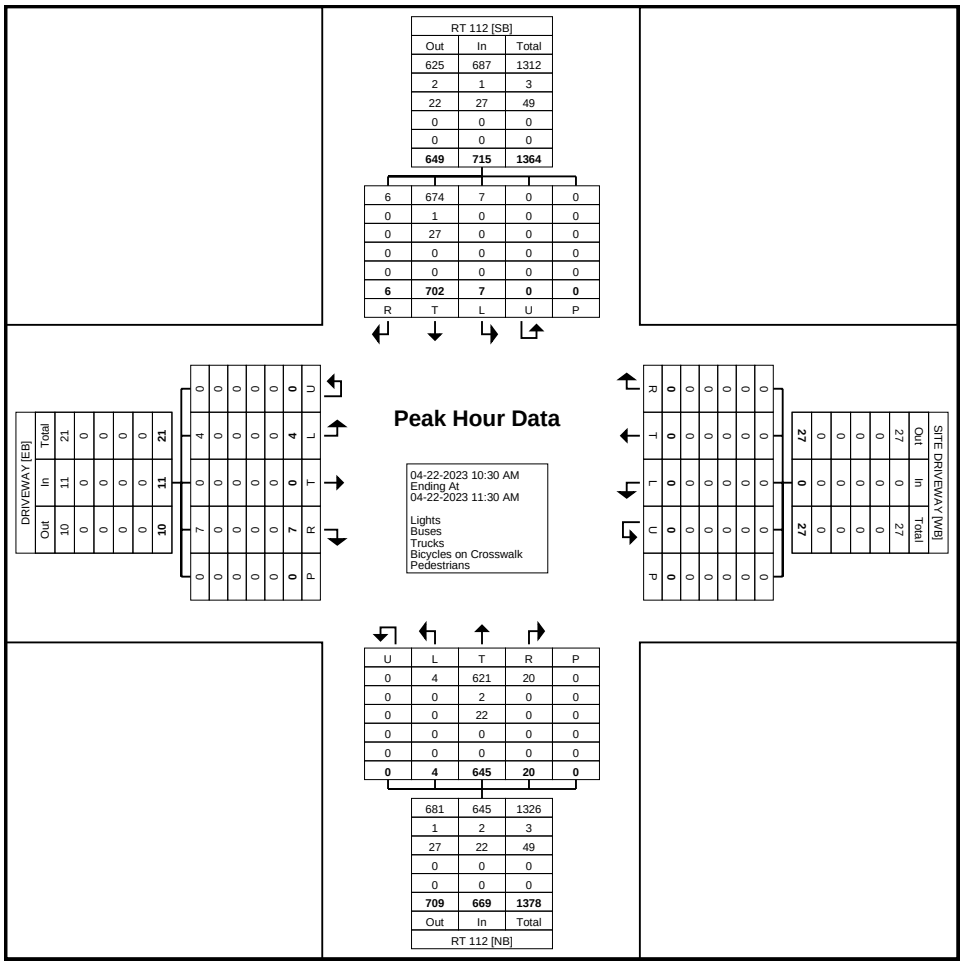
Count Name: 2-RT 112 AT SITE DRIVEWAY-SAT
Site Code:
Start Date: 04-22-2023

Turning Movement Peak Hour Data (10:30 AM)

Start Time	RT 112 Southbound						SITE DRIVEWAY Westbound						RT 112 Northbound						DRIVEWAY Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
10:30 AM	0	190	1	0	0	191	0	0	0	0	0	0	0	155	0	0	0	155	1	0	3	0	0	4	350
10:45 AM	2	173	2	0	0	177	0	0	0	0	0	0	2	176	7	0	0	185	1	0	1	0	0	2	364
11:00 AM	2	189	2	0	0	193	0	0	0	0	0	0	0	150	4	0	0	154	0	0	1	0	0	1	348
11:15 AM	3	150	1	0	0	154	0	0	0	0	0	0	2	164	9	0	0	175	2	0	2	0	0	4	333
Total	7	702	6	0	0	715	0	0	0	0	0	0	4	645	20	0	0	669	4	0	7	0	0	11	1395
Approach %	1.0	98.2	0.8	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.6	96.4	3.0	0.0	-	-	36.4	0.0	63.6	0.0	-	-	-
Total %	0.5	50.3	0.4	0.0	-	51.3	0.0	0.0	0.0	0.0	-	0.0	0.3	46.2	1.4	0.0	-	48.0	0.3	0.0	0.5	0.0	-	0.8	-
PHF	0.583	0.924	0.750	0.000	-	0.926	0.000	0.000	0.000	0.000	-	0.000	0.500	0.916	0.556	0.000	-	0.904	0.500	0.000	0.583	0.000	-	0.688	0.958
Lights	7	674	6	0	-	687	0	0	0	0	-	0	4	621	20	0	-	645	4	0	7	0	-	11	1343
% Lights	100.0	96.0	100.0	-	-	96.1	-	-	-	-	-	-	100.0	96.3	100.0	-	-	96.4	100.0	-	100.0	-	-	100.0	96.3
Buses	0	1	0	0	-	1	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	3
% Buses	0.0	0.1	0.0	-	-	0.1	-	-	-	-	-	-	0.0	0.3	0.0	-	-	0.3	0.0	-	0.0	-	-	0.0	0.2
Trucks	0	27	0	0	-	27	0	0	0	0	-	0	0	22	0	0	-	22	0	0	0	0	-	0	49
% Trucks	0.0	3.8	0.0	-	-	3.8	-	-	-	-	-	-	0.0	3.4	0.0	-	-	3.3	0.0	-	0.0	-	-	0.0	3.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com



Turning Movement Peak Hour Data Plot (10:30 AM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 2-RT 112 AT SITE DRIVEWAY-SAT
Site Code:
Start Date: 04-22-2023

Turning Movement Peak Hour Data (1:15 PM)

Start Time	RT 112 Southbound						SITE DRIVEWAY Westbound						RT 112 Northbound						DRIVEWAY Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
1:15 PM	1	188	1	0	0	190	3	0	7	0	0	10	2	198	5	0	0	205	2	0	0	0	0	2	407
1:30 PM	5	201	2	0	0	208	3	0	4	0	0	7	2	184	10	0	0	196	1	0	1	0	0	2	413
1:45 PM	6	199	0	0	0	205	4	0	0	0	0	4	0	182	9	0	0	191	1	0	0	0	0	1	401
2:00 PM	7	192	0	0	0	199	4	0	6	0	2	10	0	189	14	0	0	203	1	0	0	0	0	1	413
Total	19	780	3	0	0	802	14	0	17	0	2	31	4	753	38	0	0	795	5	0	1	0	0	6	1634
Approach %	2.4	97.3	0.4	0.0	-	-	45.2	0.0	54.8	0.0	-	-	0.5	94.7	4.8	0.0	-	-	83.3	0.0	16.7	0.0	-	-	-
Total %	1.2	47.7	0.2	0.0	-	49.1	0.9	0.0	1.0	0.0	-	1.9	0.2	46.1	2.3	0.0	-	48.7	0.3	0.0	0.1	0.0	-	0.4	-
PHF	0.679	0.970	0.375	0.000	-	0.964	0.875	0.000	0.607	0.000	-	0.775	0.500	0.951	0.679	0.000	-	0.970	0.625	0.000	0.250	0.000	-	0.750	0.989
Lights	19	763	3	0	-	785	14	0	17	0	-	31	4	748	38	0	-	790	5	0	1	0	-	6	1612
% Lights	100.0	97.8	100.0	-	-	97.9	100.0	-	100.0	-	-	100.0	100.0	99.3	100.0	-	-	99.4	100.0	-	100.0	-	-	100.0	98.7
Buses	0	1	0	0	-	1	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	2
% Buses	0.0	0.1	0.0	-	-	0.1	0.0	-	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.0	-	0.0	-	-	0.0	0.1
Trucks	0	16	0	0	-	16	0	0	0	0	-	0	0	4	0	0	-	4	0	0	0	0	-	0	20
% Trucks	0.0	2.1	0.0	-	-	2.0	0.0	-	0.0	-	-	0.0	0.0	0.5	0.0	-	-	0.5	0.0	-	0.0	-	-	0.0	1.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Traffic Databank LLC
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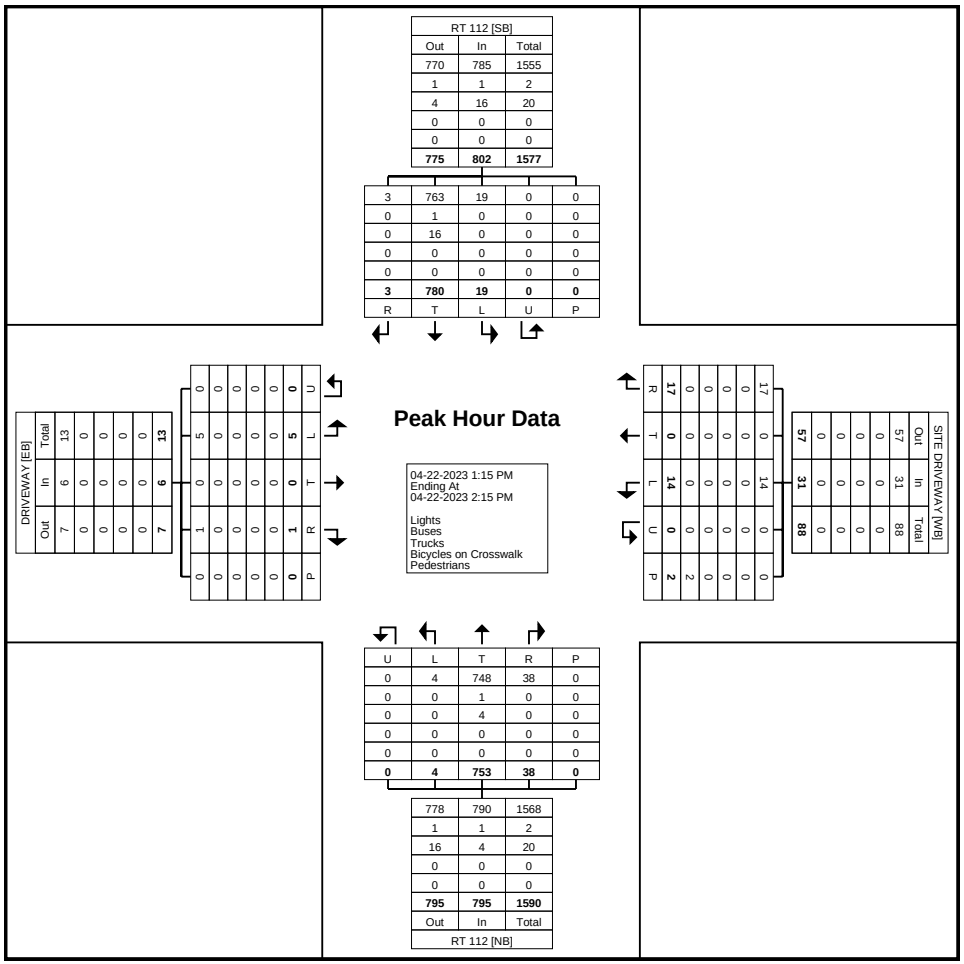

Turning Movement Peak Hour Data Plot (1:15 PM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 2-RT 112 AT SITE DRIVEWAY-TUE
Site Code:
Start Date: 04-25-2023

Turning Movement Data

Start Time	RT 112 Southbound						SITE DRIVEWAY Westbound						DRIVEWAY Northbound						RT 112 Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	200	1	0	0	201	1	0	0	0	0	1	2	103	0	0	0	105	1	0	2	0	1	3	310
7:15 AM	0	205	1	0	0	206	0	0	0	0	1	0	0	103	0	0	0	103	0	0	3	0	0	3	312
7:30 AM	0	189	2	0	0	191	0	0	0	0	1	0	1	152	0	0	0	153	1	0	3	0	0	4	348
7:45 AM	1	182	0	0	0	183	0	0	0	0	0	0	2	119	1	0	0	122	0	0	1	1	0	2	307
Hourly Total	1	776	4	0	0	781	1	0	0	0	2	1	5	477	1	0	0	483	2	0	9	1	1	12	1277
8:00 AM	1	184	4	0	0	189	0	2	0	0	0	2	2	145	0	0	0	147	0	0	0	0	1	0	338
8:15 AM	1	160	0	0	0	161	0	0	0	0	0	0	0	123	0	0	0	123	0	0	0	0	0	0	284
8:30 AM	0	181	2	0	0	183	0	0	0	0	0	0	0	171	1	0	0	172	0	0	1	0	0	1	356
8:45 AM	0	189	1	0	0	190	0	0	1	0	0	1	2	138	1	0	0	141	0	0	2	0	0	2	334
Hourly Total	2	714	7	0	0	723	0	2	1	0	0	3	4	577	2	0	0	583	0	0	3	0	1	3	1312
9:00 AM	0	165	1	0	0	166	0	0	0	0	0	0	1	133	0	0	0	134	1	0	4	0	0	5	305
9:15 AM	0	178	3	0	0	181	0	0	0	0	1	0	0	146	0	0	0	146	1	0	0	0	0	1	328
9:30 AM	2	158	3	0	0	163	0	0	1	0	0	1	0	157	1	0	0	158	0	0	2	0	0	2	324
9:45 AM	0	160	2	0	0	162	0	0	0	0	0	0	2	150	0	0	0	152	0	0	4	0	0	4	318
Hourly Total	2	661	9	0	0	672	0	0	1	0	1	1	3	586	1	0	0	590	2	0	10	0	0	12	1275
10:00 AM	0	162	5	0	0	167	0	0	0	0	0	0	2	140	1	0	0	143	1	0	2	0	0	3	313
10:15 AM	0	132	2	0	0	134	0	0	0	0	1	0	0	152	1	0	0	153	0	0	4	0	0	4	291
10:30 AM	0	150	2	0	0	152	1	0	0	0	0	1	0	142	2	0	0	144	0	0	3	0	0	3	300
10:45 AM	0	156	2	0	0	158	0	0	0	0	0	0	1	143	0	0	0	144	0	0	3	0	0	3	305
Hourly Total	0	600	11	0	0	611	1	0	0	0	1	1	3	577	4	0	0	584	1	0	12	0	0	13	1209
11:00 AM	2	127	3	0	0	132	1	0	0	0	0	1	0	145	4	1	0	150	0	0	1	0	0	1	284
11:15 AM	1	136	3	0	0	140	1	0	2	0	0	3	3	144	2	0	0	149	1	0	5	0	0	6	298
11:30 AM	1	119	2	0	0	122	1	0	2	0	0	3	0	150	2	0	0	152	1	0	2	0	0	3	280
11:45 AM	0	164	3	0	0	167	1	0	1	0	0	2	0	163	2	0	0	165	0	0	0	0	0	0	334
Hourly Total	4	546	11	0	0	561	4	0	5	0	0	9	3	602	10	1	0	616	2	0	8	0	0	10	1196
12:00 PM	2	152	2	0	0	156	0	0	0	0	0	0	0	155	0	0	0	155	0	0	1	0	0	1	312
12:15 PM	0	162	2	0	0	164	0	0	0	0	0	0	0	180	0	0	0	180	0	1	5	0	0	6	350
12:30 PM	2	194	3	0	0	199	0	0	2	0	0	2	0	156	1	0	0	157	1	0	3	0	0	4	362
12:45 PM	0	157	3	0	0	160	1	1	1	0	0	3	0	198	4	0	0	202	0	0	4	0	0	4	369
Hourly Total	4	665	10	0	0	679	1	1	3	0	0	5	0	689	5	0	0	694	1	1	13	0	0	15	1393
1:00 PM	0	168	5	0	0	173	1	0	2	0	1	3	0	202	1	0	0	203	1	0	1	0	1	2	381
1:15 PM	0	165	0	0	0	165	1	0	0	0	0	1	0	153	0	0	0	153	2	0	3	0	1	5	324
1:30 PM	1	152	1	0	0	154	0	0	0	0	0	0	0	146	1	0	0	147	0	0	4	0	0	4	305
1:45 PM	4	161	1	0	0	166	2	0	1	0	0	3	1	156	0	0	0	157	1	0	4	0	0	5	331
Hourly Total	5	646	7	0	0	658	4	0	3	0	1	7	1	657	2	0	0	660	4	0	12	0	2	16	1341
2:00 PM	0	156	2	0	0	158	0	0	2	0	0	2	1	158	0	0	0	159	0	0	1	0	0	1	320
2:15 PM	1	153	1	0	0	155	0	0	0	0	0	0	0	182	0	0	0	182	2	0	0	0	0	2	339
2:30 PM	1	159	3	0	0	163	0	0	4	0	1	4	1	201	0	0	0	202	1	0	1	0	0	2	371

2:45 PM	4	161	4	0	0	169	0	1	4	0	0	5	3	221	1	0	0	225	1	0	0	0	5	1	400
Hourly Total	6	629	10	0	0	645	0	1	10	0	1	11	5	762	1	0	0	768	4	0	2	0	5	6	1430
3:00 PM	1	182	1	0	0	184	0	0	0	0	1	0	0	237	0	0	0	237	1	0	6	0	1	7	428
3:15 PM	0	163	3	0	0	166	0	0	2	0	1	2	1	216	0	0	0	217	0	0	2	0	2	2	387
3:30 PM	1	168	1	0	0	170	2	0	0	0	0	2	1	224	3	0	0	228	0	0	1	0	0	1	401
3:45 PM	0	150	2	0	0	152	0	0	1	0	0	1	1	222	1	0	0	224	3	0	3	0	1	6	383
Hourly Total	2	663	7	0	0	672	2	0	3	0	2	5	3	899	4	0	0	906	4	0	12	0	4	16	1599
4:00 PM	1	153	9	0	0	163	0	0	2	0	1	2	0	233	1	0	0	234	2	0	0	0	11	2	401
4:15 PM	0	180	5	0	0	185	0	1	2	0	1	3	1	243	2	0	0	246	1	0	0	0	1	1	435
4:30 PM	1	203	1	0	0	205	1	0	3	0	0	4	2	244	2	0	0	248	2	0	1	0	0	3	460
4:45 PM	0	179	2	0	0	181	2	0	1	0	1	3	1	243	1	0	0	245	2	0	1	0	3	3	432
Hourly Total	2	715	17	0	0	734	3	1	8	0	3	12	4	963	6	0	0	973	7	0	2	0	15	9	1728
5:00 PM	0	172	5	0	0	177	0	1	2	0	0	3	0	243	5	0	0	248	2	0	2	0	1	4	432
5:15 PM	0	164	0	0	0	164	1	0	0	0	0	1	0	250	2	0	0	252	1	0	3	0	1	4	421
5:30 PM	1	149	0	0	0	150	0	0	5	0	0	5	2	241	1	0	0	244	2	1	4	0	1	7	406
5:45 PM	0	131	2	0	0	133	1	0	0	0	1	1	1	225	4	0	0	230	1	0	6	0	1	7	371
Hourly Total	1	616	7	0	0	624	2	1	7	0	1	10	3	959	12	0	0	974	6	1	15	0	4	22	1630
6:00 PM	1	160	0	0	0	161	1	0	3	0	0	4	1	208	0	0	0	209	0	0	3	0	0	3	377
6:15 PM	0	152	0	0	0	152	0	0	1	0	0	1	0	228	5	0	0	233	0	0	2	0	1	2	388
6:30 PM	0	160	0	0	0	160	1	0	2	0	1	3	0	223	1	0	0	224	0	0	4	0	2	4	391
6:45 PM	1	125	2	0	0	128	2	0	2	0	0	4	0	195	3	0	0	198	0	1	0	0	0	1	331
Hourly Total	2	597	2	0	0	601	4	0	8	0	1	12	1	854	9	0	0	864	0	1	9	0	3	10	1487
Grand Total	31	7828	102	0	0	7961	22	6	49	0	13	77	35	8602	57	1	0	8695	33	3	107	1	35	144	16877
Approach %	0.4	98.3	1.3	0.0	-	-	28.6	7.8	63.6	0.0	-	-	0.4	98.9	0.7	0.0	-	-	22.9	2.1	74.3	0.7	-	-	-
Total %	0.2	46.4	0.6	0.0	-	47.2	0.1	0.0	0.3	0.0	-	0.5	0.2	51.0	0.3	0.0	-	51.5	0.2	0.0	0.6	0.0	-	0.9	-
Lights	27	7174	74	0	-	7275	21	5	46	0	-	72	31	8009	55	0	-	8095	31	2	102	1	-	136	15578
% Lights	87.1	91.6	72.5	-	-	91.4	95.5	83.3	93.9	-	-	93.5	88.6	93.1	96.5	0.0	-	93.1	93.9	66.7	95.3	100.0	-	94.4	92.3
Buses	1	120	4	0	-	125	0	0	0	0	-	0	0	131	0	0	-	131	0	0	1	0	-	1	257
% Buses	3.2	1.5	3.9	-	-	1.6	0.0	0.0	0.0	-	-	0.0	0.0	1.5	0.0	0.0	-	1.5	0.0	0.0	0.9	0.0	-	0.7	1.5
Trucks	3	534	24	0	-	561	1	1	3	0	-	5	4	462	2	1	-	469	2	1	4	0	-	7	1042
% Trucks	9.7	6.8	23.5	-	-	7.0	4.5	16.7	6.1	-	-	6.5	11.4	5.4	3.5	100.0	-	5.4	6.1	33.3	3.7	0.0	-	4.9	6.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	10	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	46.2	-	-	-	-	-	-	-	-	-	-	-	28.6	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	25	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	53.8	-	-	-	-	-	-	-	-	-	-	-	71.4	-	-

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
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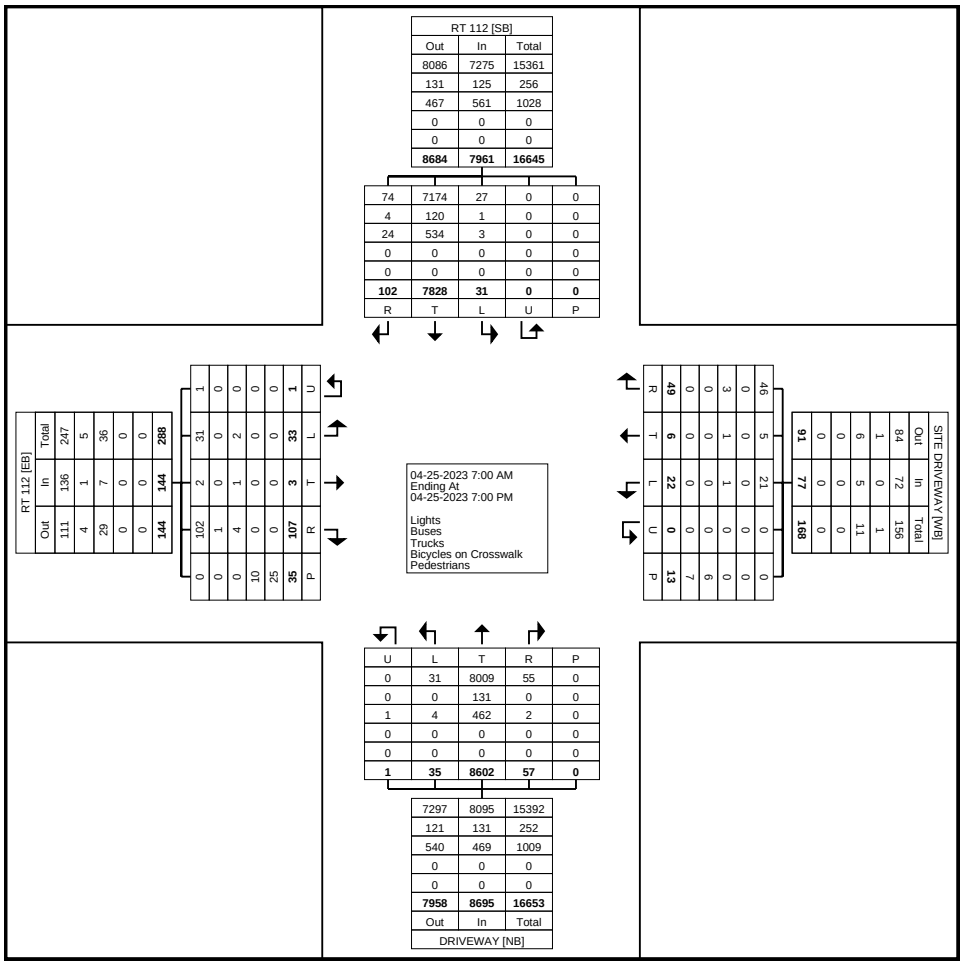
Count Name: 2-RT 112 AT SITE DRIVEWAY-TUE
Site Code:
Start Date: 04-25-2023



Turning Movement Data Plot

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 2-RT 112 AT SITE DRIVEWAY-TUE
Site Code:
Start Date: 04-25-2023

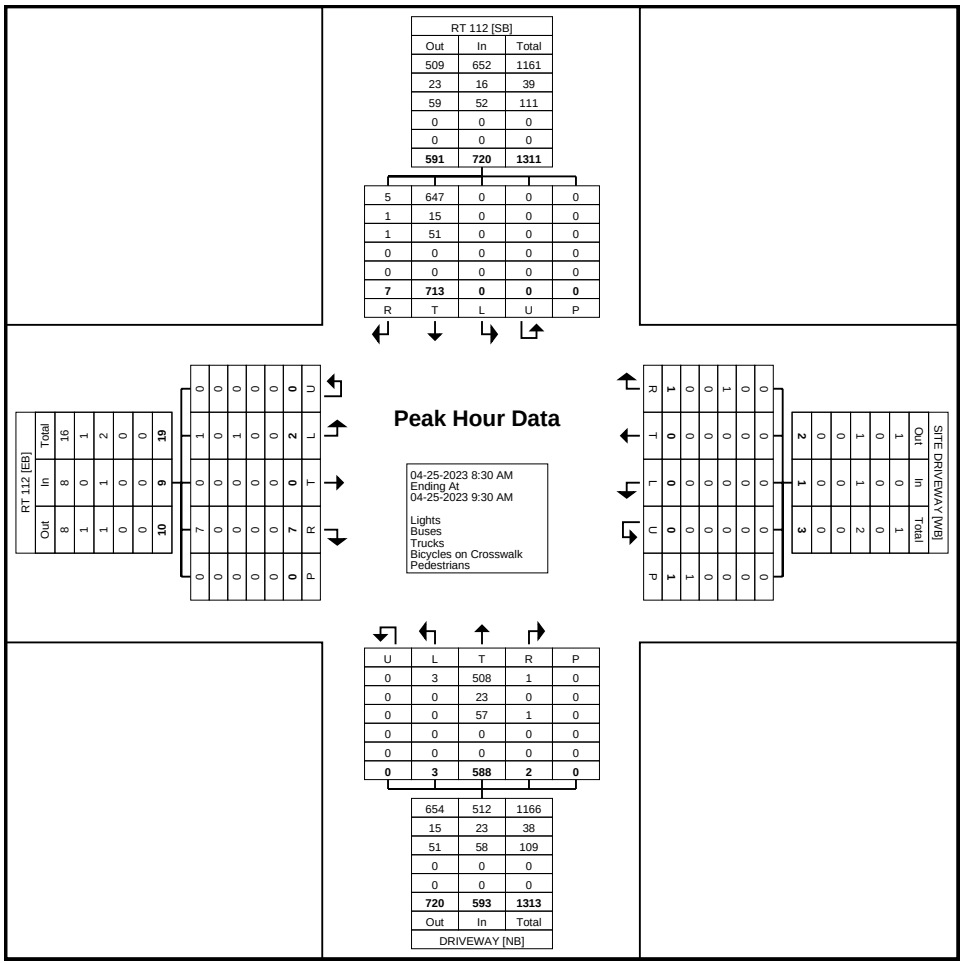
Turning Movement Peak Hour Data (8:30 AM)

Start Time	RT 112 Southbound						SITE DRIVEWAY Westbound						DRIVEWAY Northbound						RT 112 Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:30 AM	0	181	2	0	0	183	0	0	0	0	0	0	0	171	1	0	0	172	0	0	1	0	0	1	356
8:45 AM	0	189	1	0	0	190	0	0	1	0	0	1	2	138	1	0	0	141	0	0	2	0	0	2	334
9:00 AM	0	165	1	0	0	166	0	0	0	0	0	0	1	133	0	0	0	134	1	0	4	0	0	5	305
9:15 AM	0	178	3	0	0	181	0	0	0	0	1	0	0	146	0	0	0	146	1	0	0	0	0	1	328
Total	0	713	7	0	0	720	0	0	1	0	1	1	3	588	2	0	0	593	2	0	7	0	0	9	1323
Approach %	0.0	99.0	1.0	0.0	-	-	0.0	0.0	100.0	0.0	-	-	0.5	99.2	0.3	0.0	-	-	22.2	0.0	77.8	0.0	-	-	-
Total %	0.0	53.9	0.5	0.0	-	54.4	0.0	0.0	0.1	0.0	-	0.1	0.2	44.4	0.2	0.0	-	44.8	0.2	0.0	0.5	0.0	-	0.7	-
PHF	0.000	0.943	0.583	0.000	-	0.947	0.000	0.000	0.250	0.000	-	0.250	0.375	0.860	0.500	0.000	-	0.862	0.500	0.000	0.438	0.000	-	0.450	0.929
Lights	0	647	5	0	-	652	0	0	0	0	-	0	3	508	1	0	-	512	1	0	7	0	-	8	1172
% Lights	-	90.7	71.4	-	-	90.6	-	-	0.0	-	-	0.0	100.0	86.4	50.0	-	-	86.3	50.0	-	100.0	-	-	88.9	88.6
Buses	0	15	1	0	-	16	0	0	0	0	-	0	0	23	0	0	-	23	0	0	0	0	-	0	39
% Buses	-	2.1	14.3	-	-	2.2	-	-	0.0	-	-	0.0	0.0	3.9	0.0	-	-	3.9	0.0	-	0.0	-	-	0.0	2.9
Trucks	0	51	1	0	-	52	0	0	1	0	-	1	0	57	1	0	-	58	1	0	0	0	-	1	112
% Trucks	-	7.2	14.3	-	-	7.2	-	-	100.0	-	-	100.0	0.0	9.7	50.0	-	-	9.8	50.0	-	0.0	-	-	11.1	8.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 2-RT 112 AT SITE DRIVEWAY-TUE
Site Code:
Start Date: 04-25-2023



Turning Movement Peak Hour Data Plot (8:30 AM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 2-RT 112 AT SITE DRIVEWAY-TUE
Site Code:
Start Date: 04-25-2023

Turning Movement Peak Hour Data (4:15 PM)

Start Time	RT 112 Southbound						SITE DRIVEWAY Westbound						DRIVEWAY Northbound						RT 112 Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:15 PM	0	180	5	0	0	185	0	1	2	0	1	3	1	243	2	0	0	246	1	0	0	0	1	1	435
4:30 PM	1	203	1	0	0	205	1	0	3	0	0	4	2	244	2	0	0	248	2	0	1	0	0	3	460
4:45 PM	0	179	2	0	0	181	2	0	1	0	1	3	1	243	1	0	0	245	2	0	1	0	3	3	432
5:00 PM	0	172	5	0	0	177	0	1	2	0	0	3	0	243	5	0	0	248	2	0	2	0	1	4	432
Total	1	734	13	0	0	748	3	2	8	0	2	13	4	973	10	0	0	987	7	0	4	0	5	11	1759
Approach %	0.1	98.1	1.7	0.0	-	-	23.1	15.4	61.5	0.0	-	-	0.4	98.6	1.0	0.0	-	-	63.6	0.0	36.4	0.0	-	-	-
Total %	0.1	41.7	0.7	0.0	-	42.5	0.2	0.1	0.5	0.0	-	0.7	0.2	55.3	0.6	0.0	-	56.1	0.4	0.0	0.2	0.0	-	0.6	-
PHF	0.250	0.904	0.650	0.000	-	0.912	0.375	0.500	0.667	0.000	-	0.813	0.500	0.997	0.500	0.000	-	0.995	0.875	0.000	0.500	0.000	-	0.688	0.956
Lights	1	697	11	0	-	709	3	2	8	0	-	13	4	947	10	0	-	961	7	0	4	0	-	11	1694
% Lights	100.0	95.0	84.6	-	-	94.8	100.0	100.0	100.0	-	-	100.0	100.0	97.3	100.0	-	-	97.4	100.0	-	100.0	-	-	100.0	96.3
Buses	0	7	0	0	-	7	0	0	0	0	-	0	0	7	0	0	-	7	0	0	0	0	-	0	14
% Buses	0.0	1.0	0.0	-	-	0.9	0.0	0.0	0.0	-	-	0.0	0.0	0.7	0.0	-	-	0.7	0.0	-	0.0	-	-	0.0	0.8
Trucks	0	30	2	0	-	32	0	0	0	0	-	0	0	19	0	0	-	19	0	0	0	0	-	0	51
% Trucks	0.0	4.1	15.4	-	-	4.3	0.0	0.0	0.0	-	-	0.0	0.0	2.0	0.0	-	-	1.9	0.0	-	0.0	-	-	0.0	2.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	60.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	40.0	-	-

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
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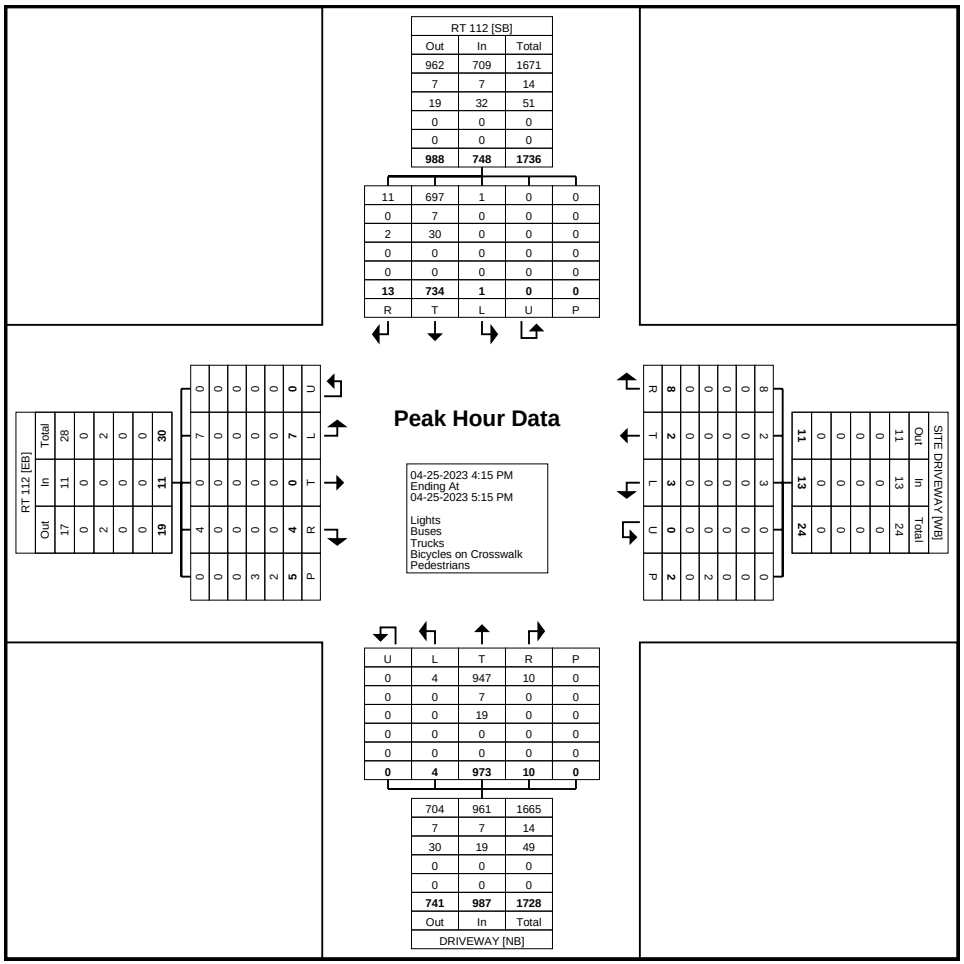


Turning Movement Peak Hour Data Plot (4:15 PM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 3-RT 112 AT HORSEBLOCK RD-SAT
Site Code:
Start Date: 04-22-2023

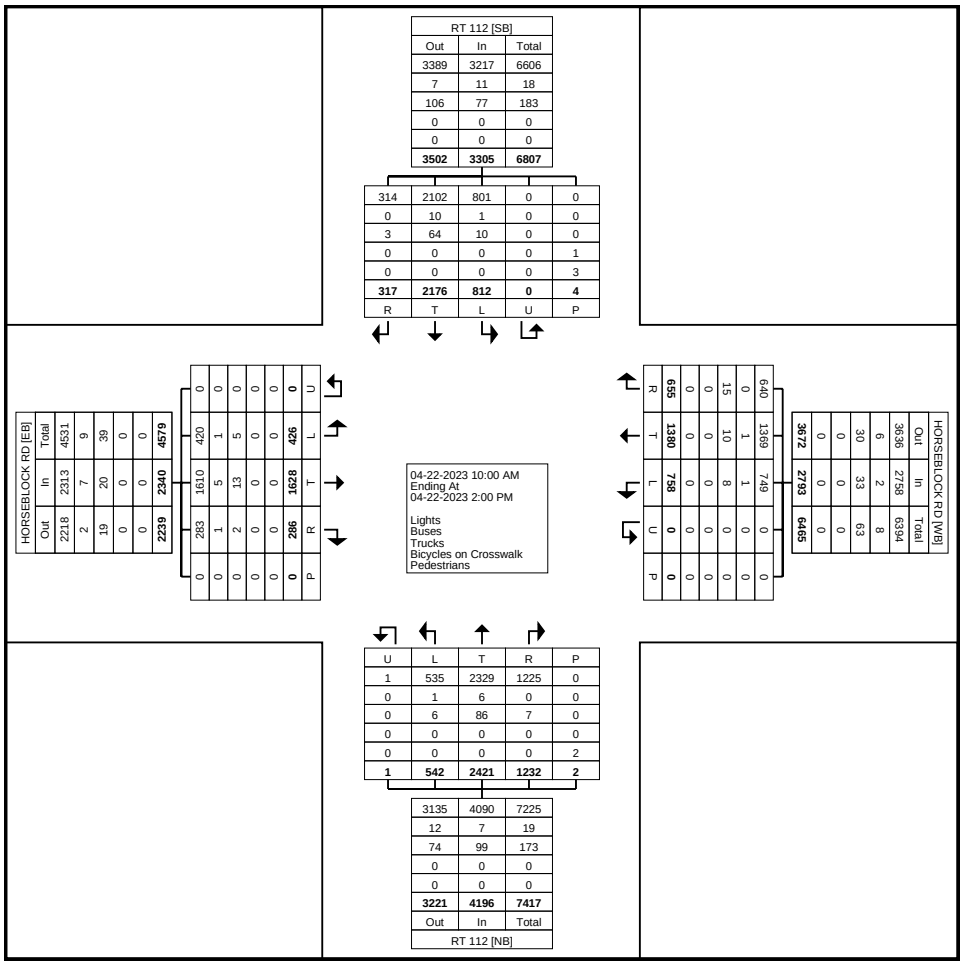
Turning Movement Data

Start Time	RT 112 Southbound						HORSEBLOCK RD Westbound						RT 112 Northbound						HORSEBLOCK RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
10:00 AM	37	112	14	0	1	163	47	91	34	0	0	172	24	129	70	0	0	223	26	83	11	0	0	120	678
10:15 AM	51	135	25	0	0	211	34	49	25	0	0	108	21	133	72	0	0	226	17	71	21	0	0	109	654
10:30 AM	44	125	16	0	0	185	53	77	28	0	0	158	30	111	78	0	0	219	29	102	18	0	0	149	711
10:45 AM	45	140	24	0	1	209	54	50	43	0	0	147	26	149	81	0	0	256	25	85	21	0	0	131	743
Hourly Total	177	512	79	0	2	768	188	267	130	0	0	585	101	522	301	0	0	924	97	341	71	0	0	509	2786
11:00 AM	50	135	15	0	0	200	42	91	44	0	0	177	26	165	64	0	1	255	23	120	13	0	0	156	788
11:15 AM	54	130	24	0	0	208	51	96	49	0	0	196	39	150	65	0	0	254	33	104	18	0	0	155	813
11:30 AM	34	124	19	0	0	177	49	96	46	0	0	191	27	136	50	0	0	213	28	113	9	0	0	150	731
11:45 AM	48	137	17	0	0	202	34	86	38	0	0	158	40	175	52	0	0	267	23	82	8	0	0	113	740
Hourly Total	186	526	75	0	0	787	176	369	177	0	0	722	132	626	231	0	1	989	107	419	48	0	0	574	3072
12:00 PM	50	145	27	0	0	222	58	103	42	0	0	203	40	151	83	0	1	274	29	115	29	0	0	173	872
12:15 PM	42	154	18	0	0	214	45	83	39	0	0	167	35	149	91	0	0	275	26	103	21	0	0	150	806
12:30 PM	55	112	20	0	0	187	63	93	46	0	0	202	41	146	90	0	0	277	32	109	22	0	0	163	829
12:45 PM	51	137	17	0	1	205	40	89	36	0	0	165	41	170	85	0	0	296	19	109	19	0	0	147	813
Hourly Total	198	548	82	0	1	828	206	368	163	0	0	737	157	616	349	0	1	1122	106	436	91	0	0	633	3320
1:00 PM	58	140	23	0	0	221	48	91	48	0	0	187	37	156	95	0	0	288	24	126	20	0	0	170	866
1:15 PM	61	159	18	0	0	238	46	78	37	0	0	161	39	180	73	0	0	292	33	94	21	0	0	148	839
1:30 PM	62	162	24	0	0	248	51	119	54	0	0	224	37	159	80	0	0	276	33	111	22	0	0	166	914
1:45 PM	70	129	16	0	1	215	43	88	46	0	0	177	39	162	103	1	0	305	26	101	13	0	0	140	837
Hourly Total	251	590	81	0	1	922	188	376	185	0	0	749	152	657	351	1	0	1161	116	432	76	0	0	624	3456
Grand Total	812	2176	317	0	4	3305	758	1380	655	0	0	2793	542	2421	1232	1	2	4196	426	1628	286	0	0	2340	12634
Approach %	24.6	65.8	9.6	0.0	-	-	27.1	49.4	23.5	0.0	-	-	12.9	57.7	29.4	0.0	-	-	18.2	69.6	12.2	0.0	-	-	-
Total %	6.4	17.2	2.5	0.0	-	26.2	6.0	10.9	5.2	0.0	-	22.1	4.3	19.2	9.8	0.0	-	33.2	3.4	12.9	2.3	0.0	-	18.5	-
Lights	801	2102	314	0	-	3217	749	1369	640	0	-	2758	535	2329	1225	1	-	4090	420	1610	283	0	-	2313	12378
% Lights	98.6	96.6	99.1	-	-	97.3	98.8	99.2	97.7	-	-	98.7	98.7	96.2	99.4	100.0	-	97.5	98.6	98.9	99.0	-	-	98.8	98.0
Buses	1	10	0	0	-	11	1	1	0	0	-	2	1	6	0	0	-	7	1	5	1	0	-	7	27
% Buses	0.1	0.5	0.0	-	-	0.3	0.1	0.1	0.0	-	-	0.1	0.2	0.2	0.0	0.0	-	0.2	0.2	0.3	0.3	-	-	0.3	0.2
Trucks	10	64	3	0	-	77	8	10	15	0	-	33	6	86	7	0	-	99	5	13	2	0	-	20	229
% Trucks	1.2	2.9	0.9	-	-	2.3	1.1	0.7	2.3	-	-	1.2	1.1	3.6	0.6	0.0	-	2.4	1.2	0.8	0.7	-	-	0.9	1.8
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	75.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 3-RT 112 AT HORSEBLOCK RD-SAT
Site Code:
Start Date: 04-22-2023



Turning Movement Data Plot

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 3-RT 112 AT HORSEBLOCK RD-SAT
Site Code:
Start Date: 04-22-2023

Turning Movement Peak Hour Data (10:45 AM)

Start Time	RT 112 Southbound						HORSEBLOCK RD Westbound						RT 112 Northbound						HORSEBLOCK RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
10:45 AM	45	140	24	0	1	209	54	50	43	0	0	147	26	149	81	0	0	256	25	85	21	0	0	131	743
11:00 AM	50	135	15	0	0	200	42	91	44	0	0	177	26	165	64	0	1	255	23	120	13	0	0	156	788
11:15 AM	54	130	24	0	0	208	51	96	49	0	0	196	39	150	65	0	0	254	33	104	18	0	0	155	813
11:30 AM	34	124	19	0	0	177	49	96	46	0	0	191	27	136	50	0	0	213	28	113	9	0	0	150	731
Total	183	529	82	0	1	794	196	333	182	0	0	711	118	600	260	0	1	978	109	422	61	0	0	592	3075
Approach %	23.0	66.6	10.3	0.0	-	-	27.6	46.8	25.6	0.0	-	-	12.1	61.3	26.6	0.0	-	-	18.4	71.3	10.3	0.0	-	-	-
Total %	6.0	17.2	2.7	0.0	-	25.8	6.4	10.8	5.9	0.0	-	23.1	3.8	19.5	8.5	0.0	-	31.8	3.5	13.7	2.0	0.0	-	19.3	-
PHF	0.847	0.945	0.854	0.000	-	0.950	0.907	0.867	0.929	0.000	-	0.907	0.756	0.909	0.802	0.000	-	0.955	0.826	0.879	0.726	0.000	-	0.949	0.946
Lights	178	514	81	0	-	773	195	330	173	0	-	698	117	578	258	0	-	953	107	417	61	0	-	585	3009
% Lights	97.3	97.2	98.8	-	-	97.4	99.5	99.1	95.1	-	-	98.2	99.2	96.3	99.2	-	-	97.4	98.2	98.8	100.0	-	-	98.8	97.9
Buses	0	2	0	0	-	2	0	1	0	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	4
% Buses	0.0	0.4	0.0	-	-	0.3	0.0	0.3	0.0	-	-	0.1	0.0	0.2	0.0	-	-	0.1	0.0	0.0	0.0	-	-	0.0	0.1
Trucks	5	13	1	0	-	19	1	2	9	0	-	12	1	21	2	0	-	24	2	5	0	0	-	7	62
% Trucks	2.7	2.5	1.2	-	-	2.4	0.5	0.6	4.9	-	-	1.7	0.8	3.5	0.8	-	-	2.5	1.8	1.2	0.0	-	-	1.2	2.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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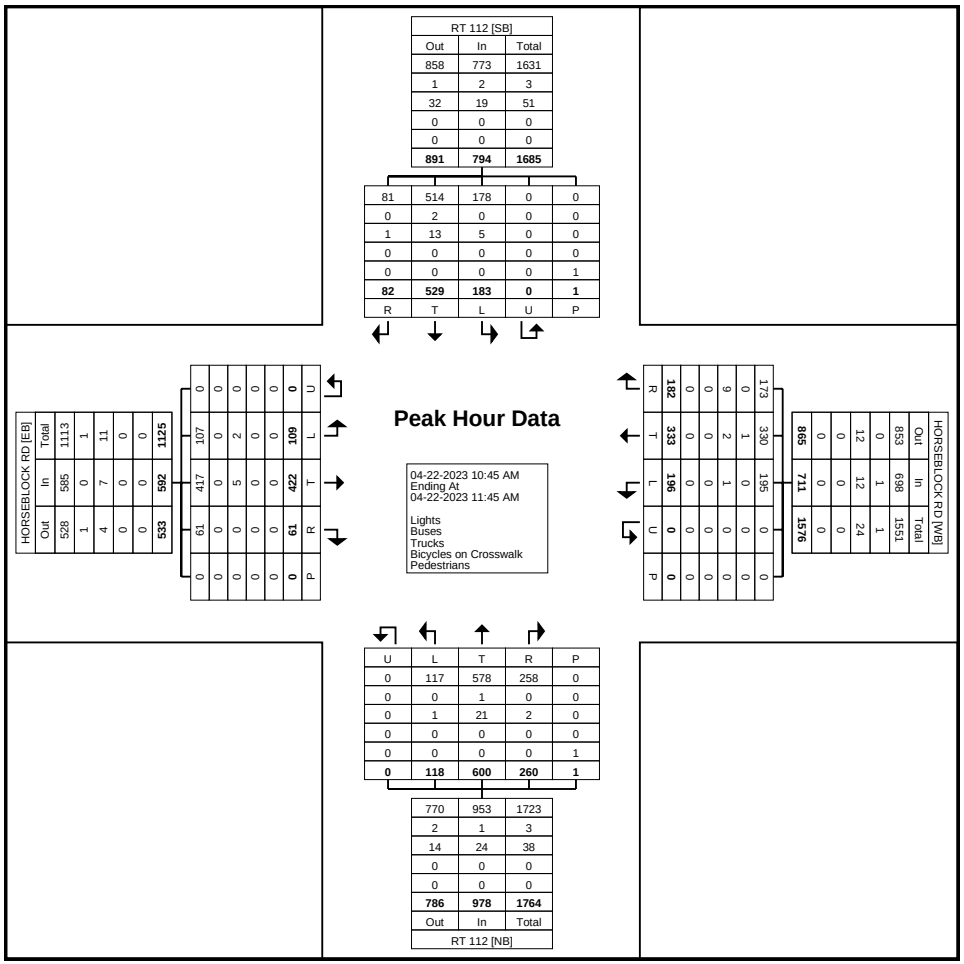


Turning Movement Peak Hour Data Plot (10:45 AM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 3-RT 112 AT HORSEBLOCK RD-SAT
Site Code:
Start Date: 04-22-2023

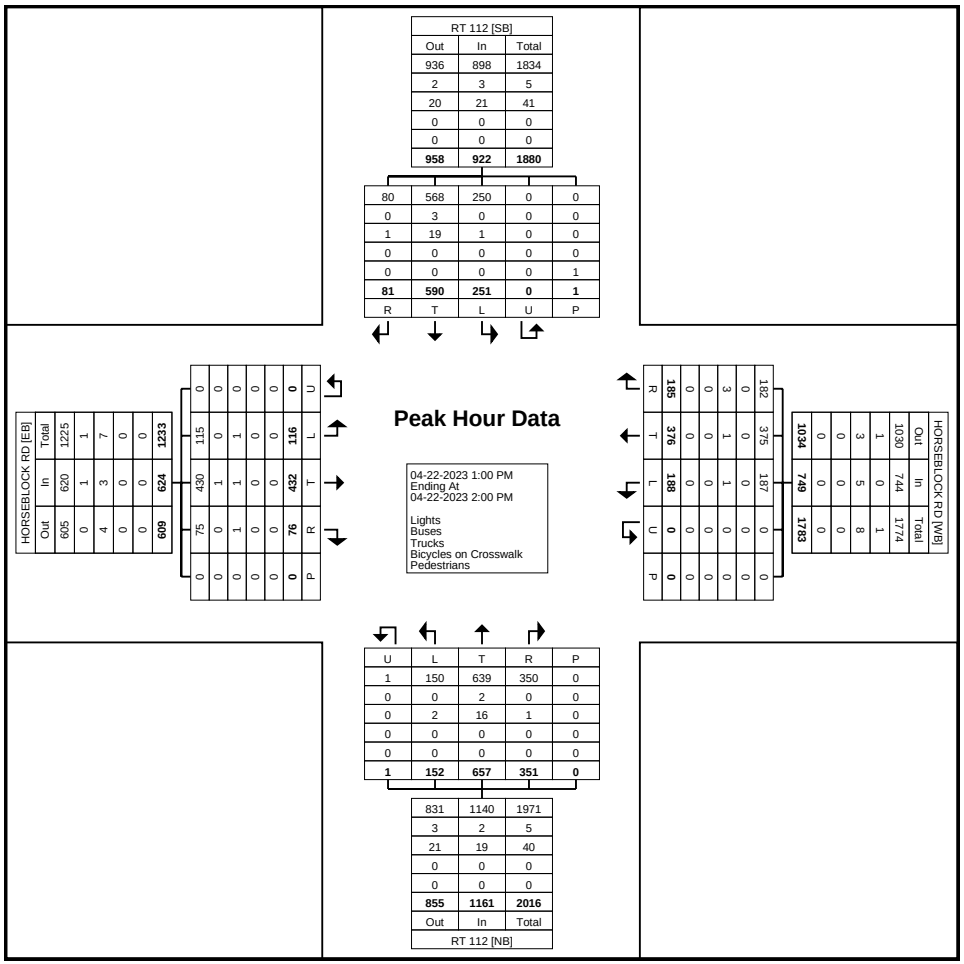
Turning Movement Peak Hour Data (1:00 PM)

Start Time	RT 112 Southbound						HORSEBLOCK RD Westbound						RT 112 Northbound						HORSEBLOCK RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
1:00 PM	58	140	23	0	0	221	48	91	48	0	0	187	37	156	95	0	0	288	24	126	20	0	0	170	866
1:15 PM	61	159	18	0	0	238	46	78	37	0	0	161	39	180	73	0	0	292	33	94	21	0	0	148	839
1:30 PM	62	162	24	0	0	248	51	119	54	0	0	224	37	159	80	0	0	276	33	111	22	0	0	166	914
1:45 PM	70	129	16	0	1	215	43	88	46	0	0	177	39	162	103	1	0	305	26	101	13	0	0	140	837
Total	251	590	81	0	1	922	188	376	185	0	0	749	152	657	351	1	0	1161	116	432	76	0	0	624	3456
Approach %	27.2	64.0	8.8	0.0	-	-	25.1	50.2	24.7	0.0	-	-	13.1	56.6	30.2	0.1	-	-	18.6	69.2	12.2	0.0	-	-	-
Total %	7.3	17.1	2.3	0.0	-	26.7	5.4	10.9	5.4	0.0	-	21.7	4.4	19.0	10.2	0.0	-	33.6	3.4	12.5	2.2	0.0	-	18.1	-
PHF	0.896	0.910	0.844	0.000	-	0.929	0.922	0.790	0.856	0.000	-	0.836	0.974	0.913	0.852	0.250	-	0.952	0.879	0.857	0.864	0.000	-	0.918	0.945
Lights	250	568	80	0	-	898	187	375	182	0	-	744	150	639	350	1	-	1140	115	430	75	0	-	620	3402
% Lights	99.6	96.3	98.8	-	-	97.4	99.5	99.7	98.4	-	-	99.3	98.7	97.3	99.7	100.0	-	98.2	99.1	99.5	98.7	-	-	99.4	98.4
Buses	0	3	0	0	-	3	0	0	0	0	-	0	0	2	0	0	-	2	0	1	0	0	-	1	6
% Buses	0.0	0.5	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.0	0.3	0.0	0.0	-	0.2	0.0	0.2	0.0	-	-	0.2	0.2
Trucks	1	19	1	0	-	21	1	1	3	0	-	5	2	16	1	0	-	19	1	1	1	0	-	3	48
% Trucks	0.4	3.2	1.2	-	-	2.3	0.5	0.3	1.6	-	-	0.7	1.3	2.4	0.3	0.0	-	1.6	0.9	0.2	1.3	-	-	0.5	1.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 3-RT 112 AT HORSEBLOCK RD-SAT
Site Code:
Start Date: 04-22-2023



Turning Movement Peak Hour Data Plot (1:00 PM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 3-RT 112 AT HORSEBLOCK RD-TUE
Site Code:
Start Date: 04-25-2023

Turning Movement Data

Start Time	RT 112 Southbound						HORSEBLOCK RD Westbound						RT 112 Northbound						HORSEBLOCK RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	28	163	12	0	0	203	46	38	26	0	1	110	21	124	28	0	1	173	16	42	9	0	0	67	553
7:15 AM	36	150	16	0	0	202	50	66	28	0	0	144	19	105	30	0	0	154	8	58	6	0	0	72	572
7:30 AM	38	181	13	0	1	232	56	59	43	0	1	158	20	154	41	0	0	215	15	42	11	0	0	68	673
7:45 AM	35	130	15	0	0	180	52	69	35	0	0	156	23	156	59	0	1	238	36	65	12	0	0	113	687
Hourly Total	137	624	56	0	1	817	204	232	132	0	2	568	83	539	158	0	2	780	75	207	38	0	0	320	2485
8:00 AM	40	131	11	0	0	182	46	52	42	0	0	140	15	188	53	0	0	256	22	42	8	0	0	72	650
8:15 AM	33	150	9	0	0	192	51	56	40	0	1	147	16	142	45	0	0	203	19	76	7	1	0	103	645
8:30 AM	50	126	22	0	0	198	58	47	40	0	0	145	25	177	54	1	0	257	16	70	9	0	2	95	695
8:45 AM	43	129	19	0	1	191	42	66	42	0	0	150	30	176	53	0	0	259	23	74	12	0	0	109	709
Hourly Total	166	536	61	0	1	763	197	221	164	0	1	582	86	683	205	1	0	975	80	262	36	1	2	379	2699
9:00 AM	41	128	23	0	1	192	45	74	53	0	0	172	29	134	60	0	0	223	23	70	12	0	1	105	692
9:15 AM	53	128	17	0	1	198	51	59	46	0	0	156	31	112	55	0	0	198	26	73	11	0	0	110	662
9:30 AM	32	138	16	0	0	186	46	60	46	0	0	152	19	134	59	0	0	212	17	79	7	0	0	103	653
9:45 AM	52	129	19	0	0	200	46	59	44	0	0	149	22	128	43	1	0	194	26	69	12	0	0	107	650
Hourly Total	178	523	75	0	2	776	188	252	189	0	0	629	101	508	217	1	0	827	92	291	42	0	1	425	2657
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	59	165	24	0	0	248	53	90	66	0	0	209	45	202	103	0	0	350	19	103	15	0	0	137	944
4:15 PM	57	174	20	0	1	251	42	98	60	0	1	200	41	211	98	0	0	350	30	113	16	0	0	159	960
4:30 PM	58	177	25	0	0	260	48	83	52	0	0	183	51	256	108	1	0	416	31	106	21	0	0	158	1017
4:45 PM	57	132	19	0	1	208	39	94	47	0	0	180	48	236	93	1	1	378	21	97	15	0	1	133	899
Hourly Total	231	648	88	0	2	967	182	365	225	0	1	772	185	905	402	2	1	1494	101	419	67	0	1	587	3820
5:00 PM	68	163	23	0	0	254	55	114	65	0	0	234	44	191	93	0	0	328	17	101	19	0	0	137	953
5:15 PM	58	161	28	0	1	247	36	120	46	0	0	202	42	232	98	0	0	372	29	135	14	0	1	178	999
5:30 PM	41	124	20	0	1	185	43	112	53	0	0	208	34	216	79	0	0	329	26	99	17	0	0	142	864
5:45 PM	44	111	18	0	2	173	35	87	43	0	0	165	41	210	84	0	0	335	27	97	8	0	2	132	805
Hourly Total	211	559	89	0	4	859	169	433	207	0	0	809	161	849	354	0	0	1364	99	432	58	0	3	589	3621
6:00 PM	43	119	18	0	0	180	43	87	31	0	0	161	35	179	81	1	0	296	30	95	13	0	0	138	775
6:15 PM	51	120	7	0	0	178	49	71	34	0	0	154	43	199	75	0	0	317	30	77	11	0	2	118	767
6:30 PM	45	129	22	0	1	196	42	53	25	0	0	120	42	204	85	1	0	332	34	72	12	0	0	118	766
6:45 PM	51	89	19	0	0	159	35	67	33	0	0	135	31	160	72	0	0	263	23	92	13	0	0	128	685
Hourly Total	190	457	66	0	1	713	169	278	123	0	0	570	151	742	313	2	0	1208	117	336	49	0	2	502	2993
Grand Total	1113	3347	435	0	11	4895	1109	1781	1040	0	4	3930	767	4226	1649	6	3	6648	564	1947	290	1	9	2802	18275
Approach %	22.7	68.4	8.9	0.0	-	-	28.2	45.3	26.5	0.0	-	-	11.5	63.6	24.8	0.1	-	-	20.1	69.5	10.3	0.0	-	-	-
Total %	6.1	18.3	2.4	0.0	-	26.8	6.1	9.7	5.7	0.0	-	21.5	4.2	23.1	9.0	0.0	-	36.4	3.1	10.7	1.6	0.0	-	15.3	-
Lights	1038	3054	421	0	-	4513	1081	1694	957	0	-	3732	743	3972	1602	6	-	6323	539	1849	279	1	-	2668	17236
% Lights	93.3	91.2	96.8	-	-	92.2	97.5	95.1	92.0	-	-	95.0	96.9	94.0	97.1	100.0	-	95.1	95.6	95.0	96.2	100.0	-	95.2	94.3
Buses	25	66	1	0	-	92	10	23	18	0	-	51	13	70	20	0	-	103	6	27	5	0	-	38	284
% Buses	2.2	2.0	0.2	-	-	1.9	0.9	1.3	1.7	-	-	1.3	1.7	1.7	1.2	0.0	-	1.5	1.1	1.4	1.7	0.0	-	1.4	1.6

Trucks	50	227	13	0	-	290	18	64	65	0	-	147	11	184	27	0	-	222	19	71	6	0	-	96	755
% Trucks	4.5	6.8	3.0	-	-	5.9	1.6	3.6	6.3	-	-	3.7	1.4	4.4	1.6	0.0	-	3.3	3.4	3.6	2.1	0.0	-	3.4	4.1
Bicycles on Crosswalk	-	-	-	-	5	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	45.5	-	-	-	-	-	25.0	-	-	-	-	-	0.0	-	-	-	-	-	22.2	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	54.5	-	-	-	-	-	75.0	-	-	-	-	-	100.0	-	-	-	-	-	77.8	-	-

Traffic Databank LLC
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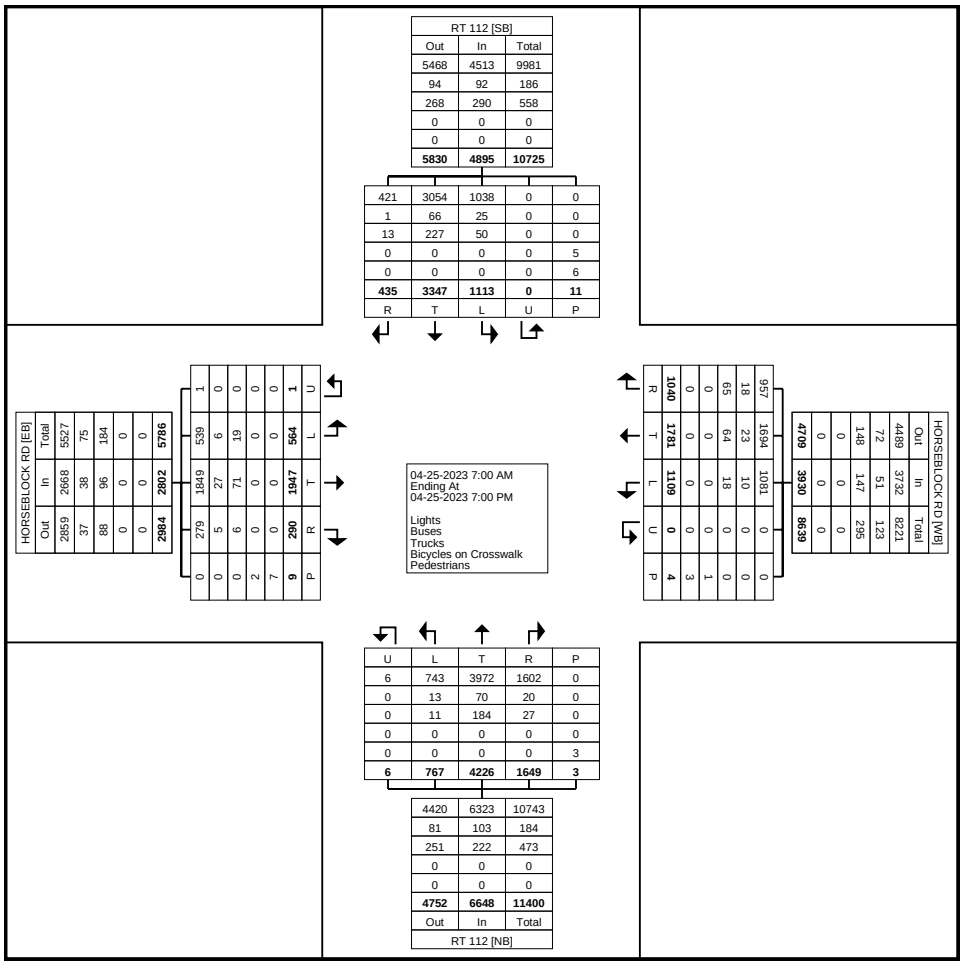


Turning Movement Data Plot

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 3-RT 112 AT HORSEBLOCK RD-TUE
Site Code:
Start Date: 04-25-2023

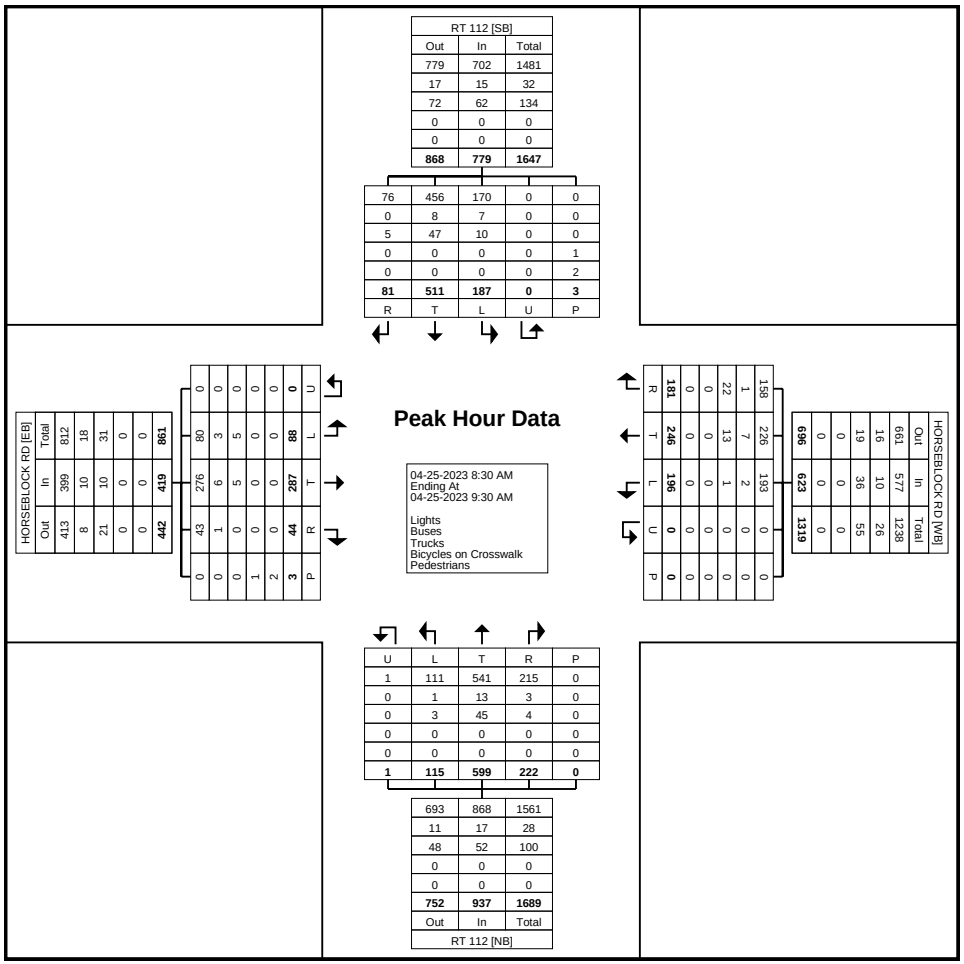
Turning Movement Peak Hour Data (8:30 AM)

Start Time	RT 112 Southbound						HORSEBLOCK RD Westbound						RT 112 Northbound						HORSEBLOCK RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:30 AM	50	126	22	0	0	198	58	47	40	0	0	145	25	177	54	1	0	257	16	70	9	0	2	95	695
8:45 AM	43	129	19	0	1	191	42	66	42	0	0	150	30	176	53	0	0	259	23	74	12	0	0	109	709
9:00 AM	41	128	23	0	1	192	45	74	53	0	0	172	29	134	60	0	0	223	23	70	12	0	1	105	692
9:15 AM	53	128	17	0	1	198	51	59	46	0	0	156	31	112	55	0	0	198	26	73	11	0	0	110	662
Total	187	511	81	0	3	779	196	246	181	0	0	623	115	599	222	1	0	937	88	287	44	0	3	419	2758
Approach %	24.0	65.6	10.4	0.0	-	-	31.5	39.5	29.1	0.0	-	-	12.3	63.9	23.7	0.1	-	-	21.0	68.5	10.5	0.0	-	-	-
Total %	6.8	18.5	2.9	0.0	-	28.2	7.1	8.9	6.6	0.0	-	22.6	4.2	21.7	8.0	0.0	-	34.0	3.2	10.4	1.6	0.0	-	15.2	-
PHF	0.882	0.990	0.880	0.000	-	0.984	0.845	0.831	0.854	0.000	-	0.906	0.927	0.846	0.925	0.250	-	0.904	0.846	0.970	0.917	0.000	-	0.952	0.972
Lights	170	456	76	0	-	702	193	226	158	0	-	577	111	541	215	1	-	868	80	276	43	0	-	399	2546
% Lights	90.9	89.2	93.8	-	-	90.1	98.5	91.9	87.3	-	-	92.6	96.5	90.3	96.8	100.0	-	92.6	90.9	96.2	97.7	-	-	95.2	92.3
Buses	7	8	0	0	-	15	2	7	1	0	-	10	1	13	3	0	-	17	3	6	1	0	-	10	52
% Buses	3.7	1.6	0.0	-	-	1.9	1.0	2.8	0.6	-	-	1.6	0.9	2.2	1.4	0.0	-	1.8	3.4	2.1	2.3	-	-	2.4	1.9
Trucks	10	47	5	0	-	62	1	13	22	0	-	36	3	45	4	0	-	52	5	5	0	0	-	10	160
% Trucks	5.3	9.2	6.2	-	-	8.0	0.5	5.3	12.2	-	-	5.8	2.6	7.5	1.8	0.0	-	5.5	5.7	1.7	0.0	-	-	2.4	5.8
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	33.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33.3	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	66.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66.7	-	-

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 3-RT 112 AT HORSEBLOCK RD-TUE
Site Code:
Start Date: 04-25-2023



Turning Movement Peak Hour Data Plot (8:30 AM)

Traffic Databank LLC
716 S 6th Avenue

Mt Vernon, New York, United States 10550
(914) 815-5379 traffic.databank@gmail.com

Count Name: 3-RT 112 AT HORSEBLOCK RD-TUE
Site Code:
Start Date: 04-25-2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	RT 112 Southbound						HORSEBLOCK RD Westbound						RT 112 Northbound						HORSEBLOCK RD Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:30 PM	58	177	25	0	0	260	48	83	52	0	0	183	51	256	108	1	0	416	31	106	21	0	0	158	1017
4:45 PM	57	132	19	0	1	208	39	94	47	0	0	180	48	236	93	1	1	378	21	97	15	0	1	133	899
5:00 PM	68	163	23	0	0	254	55	114	65	0	0	234	44	191	93	0	0	328	17	101	19	0	0	137	953
5:15 PM	58	161	28	0	1	247	36	120	46	0	0	202	42	232	98	0	0	372	29	135	14	0	1	178	999
Total	241	633	95	0	2	969	178	411	210	0	0	799	185	915	392	2	1	1494	98	439	69	0	2	606	3868
Approach %	24.9	65.3	9.8	0.0	-	-	22.3	51.4	26.3	0.0	-	-	12.4	61.2	26.2	0.1	-	-	16.2	72.4	11.4	0.0	-	-	-
Total %	6.2	16.4	2.5	0.0	-	25.1	4.6	10.6	5.4	0.0	-	20.7	4.8	23.7	10.1	0.1	-	38.6	2.5	11.3	1.8	0.0	-	15.7	-
PHF	0.886	0.894	0.848	0.000	-	0.932	0.809	0.856	0.808	0.000	-	0.854	0.907	0.894	0.907	0.500	-	0.898	0.790	0.813	0.821	0.000	-	0.851	0.951
Lights	232	599	94	0	-	925	177	403	205	0	-	785	184	885	384	2	-	1455	97	429	64	0	-	590	3755
% Lights	96.3	94.6	98.9	-	-	95.5	99.4	98.1	97.6	-	-	98.2	99.5	96.7	98.0	100.0	-	97.4	99.0	97.7	92.8	-	-	97.4	97.1
Buses	2	8	0	0	-	10	0	2	1	0	-	3	1	6	4	0	-	11	0	2	2	0	-	4	28
% Buses	0.8	1.3	0.0	-	-	1.0	0.0	0.5	0.5	-	-	0.4	0.5	0.7	1.0	0.0	-	0.7	0.0	0.5	2.9	-	-	0.7	0.7
Trucks	7	26	1	0	-	34	1	6	4	0	-	11	0	24	4	0	-	28	1	8	3	0	-	12	85
% Trucks	2.9	4.1	1.1	-	-	3.5	0.6	1.5	1.9	-	-	1.4	0.0	2.6	1.0	0.0	-	1.9	1.0	1.8	4.3	-	-	2.0	2.2
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	50.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	50.0	-	-

Traffic Databank LLC
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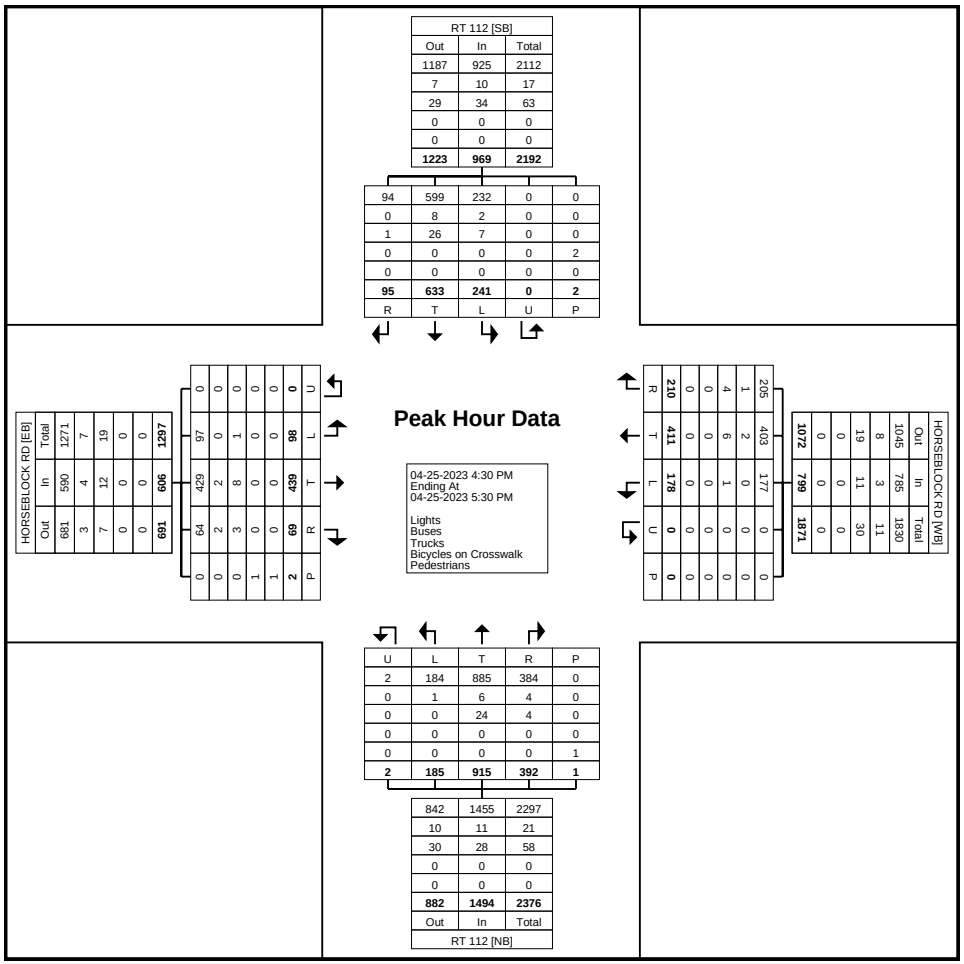


Turning Movement Peak Hour Data Plot (4:30 PM)

APPENDIX B

ITE TRIP GENERATION

TRIPGEN COUNTS FOR EXISTING PSEG FACILITY PATCHOGUE

6/13/2023	Entering			Exiting	
Time	Vehicles	Trucks		Vehicles	Trucks
6:30-6:45 AM	4	3		0	2
6:45-7:00 AM	4	1		0	0
7:00-7:15 AM	1	0		0	1
7:15-7:30 AM	2	0		3	6
7:30-7:45 AM	1	0		1	2
7:45-8:00 AM	1	0		2	3
8:00-8:15 AM	1	0		1	4
8:15-8:30 AM	2	1		2	7
8:30-8:45 AM	1	1		1	4
8:45-9:00 AM	3	0		0	1
9:00-9:15 AM	3	1		1	1
9:15-9:30 AM	1	2		2	2
9:30-9:45 AM	1	1		1	1
9:45-10:00 AM	1	0		1	0
10:00-10:15 AM	0	0		2	1
10:15-10:30 AM	1	3		0	0
10:30-10:45 AM	0	0		0	1
10:45-11:00 AM	3	3		2	0
11:00-11:15 AM	1	1		1	3
11:15-11:30 AM	3	2		2	1
11:30-11:45 AM	1	1		1	2
11:45 AM-12:00 PM	5	1		2	1
12:00-12:15 PM	1	0		3	0
12:15-12:30 PM	0	0		1	1
12:30-12:45 PM	0	0		2	0
12:45-1:00 PM	3	0		2	0
1:00-1:15 PM	2	1		3	0
1:15-1:30 PM	3	0		2	0
1:30-1:45 PM	1	0		2	0
1:45-2:00 PM	4	3		1	1
2:00-2:15 PM	1	0		0	1
2:15-2:30 PM	1	5		3	0
2:30-2:45 PM	4	2		2	1
2:45-3:00 PM	2	0		1	0
3:00-3:15 PM	1	2		2	1
3:15-3:30 PM	1	1		2	0
3:30-3:45 PM	1	0		2	1
3:45-4:00 PM	2	0		1	0
4:00-4:15 PM	2	1		1	0
4:15-4:30 PM	1	0		4	1
4:30-4:45 PM	3	0		7	0
4:45-5:00 PM	0	0		0	0
5:00-5:15 PM	3	0		0	0
5:15-5:30 PM	1	2		1	0
5:30-5:45 PM	0	0		1	0
5:45-6:00 PM	1	2		2	0
6:00-6:15 PM	1	0		0	0
6:15-6:30 PM	0	0		1	0
6:30-6:45 PM	0	0		1	0
6:45-7:00 PM	0	0		2	0
7:00-7:15 PM	1	0		1	0
7:15-7:30 PM	1	0		0	0
7:30-7:45 PM	0	2		1	0
7:45-8:00 PM	0	1		1	0
Total	81	43		77	50
	124			127	

Existing

Cars		Trucks	
In	out	In	out
5	6	2	18

Proposed

Cars		Trucks	
In	out	In	out
5.25	6.3	3.84	34.56
6	**7**	**4**	**35**

Existing

Cars		Trucks	
In	out	In	out
10	6	10	3

Proposed

Cars		Trucks	
In	out	In	out
10.50	6.3	19.2	5.76
11	**7**	**20**	**6**

TRIPGEN COUNTS FOR EXISTING PSEG FACILITY PATCHOGUE

6/10/2023	Entering		Exiting	
Time	Vehicles	Trucks	Vehicles	Trucks
6:30-6:45 AM	0	0	0	0
6:45-7:00 AM	0	0	0	0
7:00-7:15 AM	1	0	0	0
7:15-7:30 AM	0	0	0	0
7:30-7:45 AM	1	0	1	0
7:45-8:00 AM	1	0	0	0
8:00-8:15 AM	0	0	1	1
8:15-8:30 AM	0	0	0	0
8:30-8:45 AM	0	0	0	0
8:45-9:00 AM	0	0	0	0
9:00-9:15 AM	1	0	2	0
9:15-9:30 AM	1	0	0	0
9:30-9:45 AM	3	0	0	0
9:45-10:00 AM	0	0	0	0
10:00-10:15 AM	0	0	1	0
10:15-10:30 AM	0	0	1	0
10:30-10:45 AM	0	1	0	0
10:45-11:00 AM	2	0	2	0
11:00-11:15 AM	0	0	0	0
11:15-11:30 AM	2	0	1	1
11:30-11:45 AM	0	0	1	0
11:45 AM-12:00 PM	0	0	0	0
12:00-12:15 PM	0	0	0	0
12:15-12:30 PM	0	0	0	0
12:30-12:45 PM	1	0	1	0
12:45-1:00 PM	1	1	0	0
1:00-1:15 PM	0	0	1	0
1:15-1:30 PM	0	0	0	0
1:30-1:45 PM	0	0	1	0
1:45-2:00 PM	2	0	1	0
2:00-2:15 PM	0	0	1	0
2:15-2:30 PM	0	0	0	0
2:30-2:45 PM	1	0	1	0
2:45-3:00 PM	0	0	0	1
3:00-3:15 PM	1	0	1	0
3:15-3:30 PM	1	0	0	0
3:30-3:45 PM	0	0	0	0
3:45-4:00 PM	1	0	1	0
4:00-4:15 PM	1	0	1	0
4:15-4:30 PM	0	0	0	0
4:30-4:45 PM	0	0	0	0
4:45-5:00 PM	1	0	1	0
5:00-5:15 PM	1	0	0	0
5:15-5:30 PM	0	0	1	0
5:30-5:45 PM	1	0	1	0
5:45-6:00 PM	0	0	1	0
6:00-6:15 PM	1	0	0	0
6:15-6:30 PM	1	0	2	0
6:30-6:45 PM	0	0	0	0
6:45-7:00 PM	0	0	0	0
7:00-7:15 PM	1	0	0	0
7:15-7:30 PM	0	0	1	0
7:30-7:45 PM	1	0	0	0
7:45-8:00 PM	0	1	1	0
Total	28	3	27	3
	31		30	

Existing

Cars		Trucks	
In	out	In	out
4	4	0	1

Proposed

Cars		Trucks	
In	out	In	out
4.20	4.2	0	1.92
5	**5**	**0**	**2**

APPENDIX C

LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE: SIGNALIZED INTERSECTIONS

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The levels of service range between level of service A (relatively congestion-free) and level of service F (congested).

The delay experienced by a motorist is made up of a number of factors that relate to control, geometry, traffic, and incidents at an intersection. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during ideal conditions: in the absence of traffic control, in the absence of geometric delay, in the absence of any incidents, and when there are no other vehicles on the road. The portion of the total delay attributed to the control facility is called the control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Control delay may also be referred to as signal delay for signalized intersections.

Level of service criteria for signalized intersections is determined in terms of the average control delay per vehicle. The following average control delays are used to determine approach levels of service:

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

Level of Service A describes operations with very low control delay. This occurs when progression is extremely favorable; most vehicles arrive during the green phase and do not stop at all. Short traffic signal cycles may contribute to low delay.

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

Level of Service C has higher delays than level of service B. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures, where motorists are required to wait through an entire signal cycle, may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.

Level of Service D At this level, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths or high volume-to-capacity ratios. The proportion of stopping vehicles increases. Individual cycle failures are noticeable.

Level of Service E is considered the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths and high volume-to-capacity ratios. Individual cycle failures occur frequently.

Level of Service F is considered unacceptable to most drivers. This condition often occurs with over saturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may occur at volume to capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

LEVEL OF SERVICE: TWO WAY STOP CONTROLLED INTERSECTIONS

The quality of traffic service at a two-way stop controlled, or "TWSC," intersection is measured according to the level of service and capacity of individual legs. The level of service ranges from LOS A to LOS F, just as with signalized intersections.

The right of way at the TWSC intersection is controlled by stop signs on two opposing legs of an intersection (on one leg of a "T"-type intersection). The capacity of a controlled leg is based on the distribution of gaps in the major street traffic flow, driver judgment in selecting a gap through which to execute the desired maneuver and the follow up time required by each driver in a queue.

The level of service for a TWSC intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service is not defined for the intersection as a whole. The delay experienced by a motorist is made up of a number of factors that relate to control, geometry, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during conditions with ideal geometry and in the absence of incidents, control, and traffic. This program only quantifies that portion of the total delay attributed to traffic control measures, either traffic signals or stop signs. This delay is called control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration. Average control delay for any particular minor movement is a function of the approach and the degree of saturation.

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

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

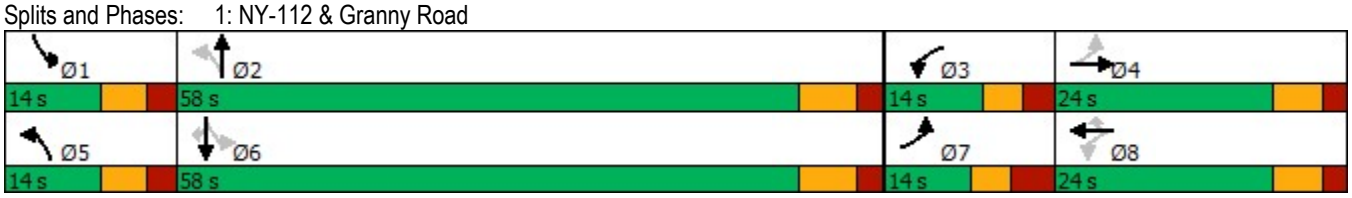
APPENDIX D

EXISTING VOLUMES CAPACITY ANALYSIS

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	69	69	136	111	68	48	457	61	505	76
Future Volume (vph)	69	69	136	111	68	48	457	61	505	76
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.0	5.0	3.0	5.0	5.0	3.0	10.0	3.0	10.0	10.0
Minimum Split (s)	9.9	23.2	8.9	23.2	23.2	9.2	37.0	9.2	37.0	37.0
Total Split (s)	14.0	24.0	14.0	24.0	24.0	14.0	58.0	14.0	58.0	58.0
Total Split (%)	12.7%	21.8%	12.7%	21.8%	21.8%	12.7%	52.7%	12.7%	52.7%	52.7%
Yellow Time (s)	3.2	4.0	3.2	4.0	4.0	3.9	4.7	3.9	4.7	4.7
All-Red Time (s)	3.7	2.2	2.7	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.2	5.9	6.2	6.2	6.2	7.0	6.2	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	18.7	12.5	22.4	15.8	15.8	57.7	51.4	58.0	51.6	51.6
Actuated g/C Ratio	0.18	0.12	0.22	0.16	0.16	0.57	0.51	0.57	0.51	0.51
v/c Ratio	0.33	0.64	0.60	0.48	0.21	0.12	0.39	0.16	0.32	0.11
Control Delay	35.1	44.7	43.4	49.1	1.4	9.3	17.1	9.7	16.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	44.7	43.4	49.1	1.4	9.3	17.1	9.7	16.8	0.3
LOS	D	D	D	D	A	A	B	A	B	A
Approach Delay		41.5		36.3			16.5		14.2	
Approach LOS		D		D			B		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 101.7	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 22.2	Intersection LOS: C
Intersection Capacity Utilization 55.0%	ICU Level of Service B
Analysis Period (min) 15	

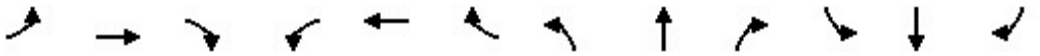
Splits and Phases: 1: NY-112 & Granny Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	287	44	196	246	181	116	599	222	187	511	81
Future Volume (vph)	88	287	44	196	246	181	116	599	222	187	511	81
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	12.1	27.0	27.0	12.1	27.0	27.0	12.6	43.3	43.3	12.6	43.3	43.3
Total Split (s)	20.0	27.0	27.0	20.0	27.0	27.0	29.0	44.0	44.0	29.0	44.0	44.0
Total Split (%)	16.7%	22.5%	22.5%	16.7%	22.5%	22.5%	24.2%	36.7%	36.7%	24.2%	36.7%	36.7%
Yellow Time (s)	4.3	5.0	5.0	4.3	5.0	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	2.8	2.0	2.0	2.8	2.0	2.0	4.0	2.3	2.3	4.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.0	7.0	7.1	7.0	7.0	7.6	7.3	7.3	7.6	7.3	7.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	10.5	14.1	14.1	11.1	18.3	18.3	9.4	27.0	27.0	11.4	29.1	29.1
Actuated g/C Ratio	0.11	0.15	0.15	0.12	0.20	0.20	0.10	0.29	0.29	0.12	0.31	0.31
v/c Ratio	0.54	0.60	0.21	0.55	0.43	0.46	0.40	0.73	0.40	0.50	0.52	0.14
Control Delay	55.0	43.9	40.5	47.0	39.4	9.8	46.2	35.6	5.7	45.5	28.7	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	43.9	40.5	47.0	39.4	9.8	46.2	35.6	5.7	45.5	28.7	0.5
LOS	D	D	D	D	D	A	D	D	A	D	C	A
Approach Delay		45.9			33.2			29.8			29.8	
Approach LOS		D			C			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.4	
Natural Cycle: 95	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 33.0	Intersection LOS: C
Intersection Capacity Utilization 59.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: NY-112 & Horseblock Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	7	0	0	1	3	588	2	0	713	7
Future Volume (Veh/h)	2	0	7	0	0	1	3	588	2	0	713	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.45	0.45	0.45	0.25	0.25	0.25	0.86	0.86	0.86	0.95	0.95	0.95
Hourly flow rate (vph)	4	0	16	0	0	4	3	684	2	0	751	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											696	
pX, platoon unblocked	0.78	0.78	0.78	0.78	0.78		0.78					
vC, conflicting volume	1448	1446	754	1460	1448	684	758			686		
vC1, stage 1 conf vol	754	754		690	690							
vC2, stage 2 conf vol	694	692		770	758							
vCu, unblocked vol	1434	1432	549	1450	1434	684	554			686		
tC, single (s)	7.6	6.5	6.2	7.1	6.5	7.2	4.1			4.1		
tC, 2 stage (s)	6.6	5.5		6.1	5.5							
tF (s)	4.0	4.0	3.3	3.5	4.0	4.2	2.2			2.2		
p0 queue free %	98	100	96	100	100	99	100			100		
cM capacity (veh/h)	252	311	423	291	310	317	805			917		

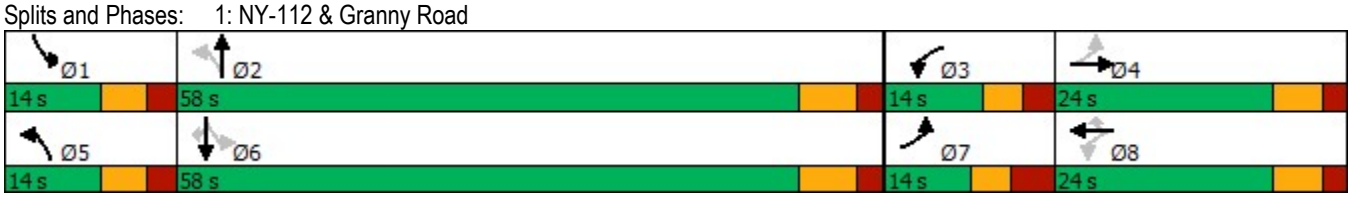
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	20	4	687	2	758
Volume Left	4	0	3	0	0
Volume Right	16	4	0	2	7
cSH	372	317	805	1700	917
Volume to Capacity	0.05	0.01	0.00	0.00	0.00
Queue Length 95th (ft)	4	1	0	0	0
Control Delay (s)	15.2	16.5	0.1	0.0	0.0
Lane LOS	C	C	A		
Approach Delay (s)	15.2	16.5	0.1		0.0
Approach LOS	C	C			

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	54.6%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	119	164	116	135	92	81	767	104	544	74
Future Volume (vph)	119	164	116	135	92	81	767	104	544	74
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.0	5.0	3.0	5.0	5.0	3.0	10.0	3.0	10.0	10.0
Minimum Split (s)	9.9	23.2	8.9	23.2	23.2	9.2	37.0	9.2	37.0	37.0
Total Split (s)	14.0	24.0	14.0	24.0	24.0	14.0	58.0	14.0	58.0	58.0
Total Split (%)	12.7%	21.8%	12.7%	21.8%	21.8%	12.7%	52.7%	12.7%	52.7%	52.7%
Yellow Time (s)	3.2	4.0	3.2	4.0	4.0	3.9	4.7	3.9	4.7	4.7
All-Red Time (s)	3.7	2.2	2.7	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.2	5.9	6.2	6.2	6.2	7.0	6.2	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	22.8	16.4	24.7	16.3	16.3	59.0	51.0	60.9	53.9	53.9
Actuated g/C Ratio	0.21	0.15	0.23	0.15	0.15	0.54	0.47	0.56	0.50	0.50
v/c Ratio	0.48	0.84	0.64	0.56	0.28	0.17	0.58	0.42	0.35	0.10
Control Delay	38.6	66.5	46.5	51.4	2.6	10.3	22.3	14.6	18.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	66.5	46.5	51.4	2.6	10.3	22.3	14.6	18.4	0.2
LOS	D	E	D	D	A	B	C	B	B	A
Approach Delay		56.9		36.6			21.3		16.0	
Approach LOS		E		D			C		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 108.3	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 70.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: NY-112 & Granny Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	439	69	178	411	210	187	915	392	241	633	95
Future Volume (vph)	98	439	69	178	411	210	187	915	392	241	633	95
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	12.1	43.0	43.0	12.1	43.0	43.0	12.6	49.3	49.3	12.6	49.3	49.3
Total Split (s)	19.0	43.0	43.0	19.0	43.0	43.0	24.0	64.0	64.0	24.0	64.0	64.0
Total Split (%)	12.7%	28.7%	28.7%	12.7%	28.7%	28.7%	16.0%	42.7%	42.7%	16.0%	42.7%	42.7%
Yellow Time (s)	4.3	5.0	5.0	4.3	5.0	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	2.8	2.0	2.0	2.8	2.0	2.0	4.0	2.3	2.3	4.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.0	7.0	7.1	7.0	7.0	7.6	7.3	7.3	7.6	7.3	7.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	11.8	25.8	25.8	11.6	25.6	25.6	13.2	47.7	47.7	14.7	49.1	49.1
Actuated g/C Ratio	0.09	0.20	0.20	0.09	0.20	0.20	0.10	0.37	0.37	0.11	0.38	0.38
v/c Ratio	0.76	0.76	0.29	0.70	0.72	0.49	0.60	0.81	0.61	0.70	0.52	0.15
Control Delay	90.4	57.5	49.1	73.0	55.8	8.9	65.8	43.5	17.7	68.6	33.3	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.4	57.5	49.1	73.0	55.8	8.9	65.8	43.5	17.7	68.6	33.3	2.3
LOS	F	E	D	E	E	A	E	D	B	E	C	A
Approach Delay		61.8			47.3			39.5			39.0	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 129.4	
Natural Cycle: 120	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 44.7	Intersection LOS: D
Intersection Capacity Utilization 73.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: NY-112 & Horseblock Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	4	3	2	8	4	973	10	1	734	13
Future Volume (Veh/h)	7	0	4	3	2	8	4	973	10	1	734	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.81	0.81	0.81	0.99	0.99	0.99	0.91	0.91	0.91
Hourly flow rate (vph)	10	0	6	4	2	10	4	983	10	1	807	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											696	
pX, platoon unblocked	0.78	0.78	0.78	0.78	0.78		0.78					
vC, conflicting volume	1818	1817	814	1813	1814	983	821			993		
vC1, stage 1 conf vol	816	816		991	991							
vC2, stage 2 conf vol	1002	1001		822	823							
vCu, unblocked vol	1907	1906	622	1900	1902	983	631			993		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	98	98	99	97	99			100		
cM capacity (veh/h)	219	242	383	224	242	305	751			704		

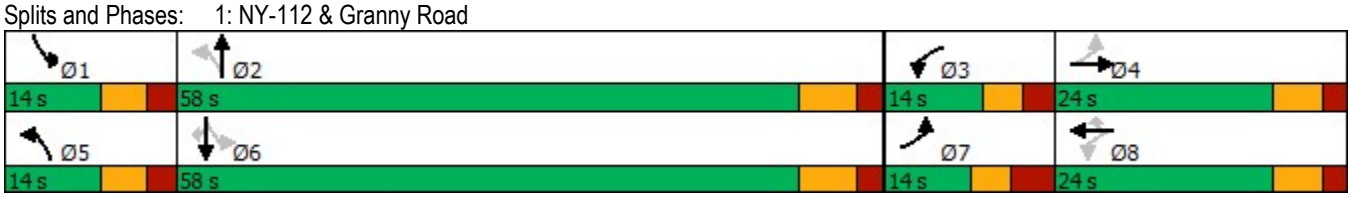
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	16	16	987	10	822
Volume Left	10	4	4	0	1
Volume Right	6	10	0	10	14
cSH	261	271	751	1700	704
Volume to Capacity	0.06	0.06	0.01	0.01	0.00
Queue Length 95th (ft)	5	5	0	0	0
Control Delay (s)	19.7	19.1	0.2	0.0	0.0
Lane LOS	C	C	A		A
Approach Delay (s)	19.7	19.1	0.2		0.0
Approach LOS	C	C			

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	64.3%	ICU Level of Service	C	
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	84	119	134	101	72	71	593	55	579	81
Future Volume (vph)	84	119	134	101	72	71	593	55	579	81
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.0	5.0	3.0	5.0	5.0	3.0	10.0	3.0	10.0	10.0
Minimum Split (s)	9.9	23.2	8.9	23.2	23.2	9.2	37.0	9.2	37.0	37.0
Total Split (s)	14.0	24.0	14.0	24.0	24.0	14.0	58.0	14.0	58.0	58.0
Total Split (%)	12.7%	21.8%	12.7%	21.8%	21.8%	12.7%	52.7%	12.7%	52.7%	52.7%
Yellow Time (s)	3.2	4.0	3.2	4.0	4.0	3.9	4.7	3.9	4.7	4.7
All-Red Time (s)	3.7	2.2	2.7	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.2	5.9	6.2	6.2	6.2	7.0	6.2	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	21.5	15.3	25.1	18.6	18.6	58.0	51.5	57.7	51.4	51.4
Actuated g/C Ratio	0.21	0.15	0.24	0.18	0.18	0.56	0.49	0.55	0.49	0.49
v/c Ratio	0.32	0.78	0.65	0.35	0.20	0.15	0.43	0.15	0.35	0.10
Control Delay	33.8	56.9	46.1	44.4	1.1	10.1	18.4	10.2	18.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.8	56.9	46.1	44.4	1.1	10.1	18.4	10.2	18.1	0.2
LOS	C	E	D	D	A	B	B	B	B	A
Approach Delay		50.1		35.0			17.6		15.5	
Approach LOS		D		C			B		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.4	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

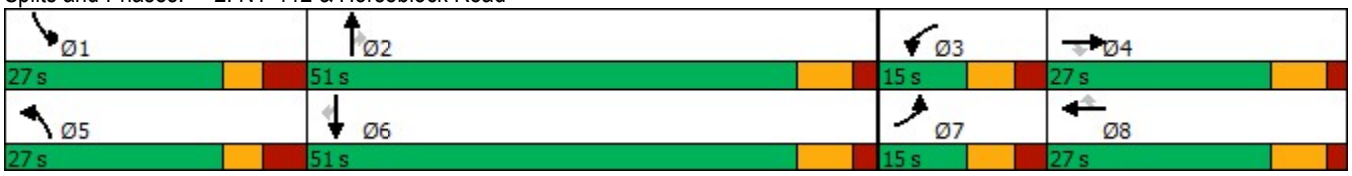
Splits and Phases: 1: NY-112 & Granny Road

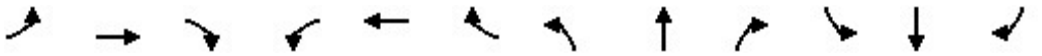


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	432	76	188	376	185	153	657	351	251	590	81
Future Volume (vph)	116	432	76	188	376	185	153	657	351	251	590	81
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	12.1	27.0	27.0	12.1	27.0	27.0	12.6	49.3	49.3	12.6	49.3	49.3
Total Split (s)	15.0	27.0	27.0	15.0	27.0	27.0	27.0	51.0	51.0	27.0	51.0	51.0
Total Split (%)	12.5%	22.5%	22.5%	12.5%	22.5%	22.5%	22.5%	42.5%	42.5%	22.5%	42.5%	42.5%
Yellow Time (s)	4.3	5.0	5.0	4.3	5.0	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	2.8	2.0	2.0	2.8	2.0	2.0	4.0	2.3	2.3	4.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.0	7.0	7.1	7.0	7.0	7.6	7.3	7.3	7.6	7.3	7.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	8.0	17.6	17.6	8.0	17.6	17.6	10.2	28.4	28.4	13.2	31.4	31.4
Actuated g/C Ratio	0.08	0.18	0.18	0.08	0.18	0.18	0.11	0.29	0.29	0.14	0.32	0.32
v/c Ratio	0.91	0.74	0.31	0.80	0.71	0.48	0.46	0.70	0.59	0.59	0.56	0.14
Control Delay	104.7	46.7	40.6	67.4	45.3	9.3	47.1	34.6	14.3	46.1	29.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.7	46.7	40.6	67.4	45.3	9.3	47.1	34.6	14.3	46.1	29.1	0.5
LOS	F	D	D	E	D	A	D	C	B	D	C	A
Approach Delay		56.7			42.0			30.1			31.2	
Approach LOS		E			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96.7	
Natural Cycle: 105	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 38.0	Intersection LOS: D
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: NY-112 & Horseblock Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	1	14	0	17	4	753	38	19	780	3
Future Volume (Veh/h)	5	0	1	14	0	17	4	753	38	19	780	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.78	0.78	0.78	0.97	0.97	0.97	0.96	0.96	0.96
Hourly flow rate (vph)	7	0	1	18	0	22	4	776	39	20	812	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											696	
pX, platoon unblocked	0.77	0.77	0.77	0.77	0.77		0.77					
vC, conflicting volume	1660	1676	814	1638	1639	776	815			815		
vC1, stage 1 conf vol	854	854		784	784							
vC2, stage 2 conf vol	806	823		854	855							
vCu, unblocked vol	1707	1729	608	1680	1681	776	609			815		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	100	93	100	95	99			98		
cM capacity (veh/h)	237	254	384	252	264	401	753			821		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	8	40	780	39	835
Volume Left	7	18	4	0	20
Volume Right	1	22	0	39	3
cSH	249	317	753	1700	821
Volume to Capacity	0.03	0.13	0.01	0.02	0.02
Queue Length 95th (ft)	2	11	0	0	2
Control Delay (s)	19.9	18.0	0.1	0.0	0.7
Lane LOS	C	C	A		A
Approach Delay (s)	19.9	18.0	0.1		0.7
Approach LOS	C	C			

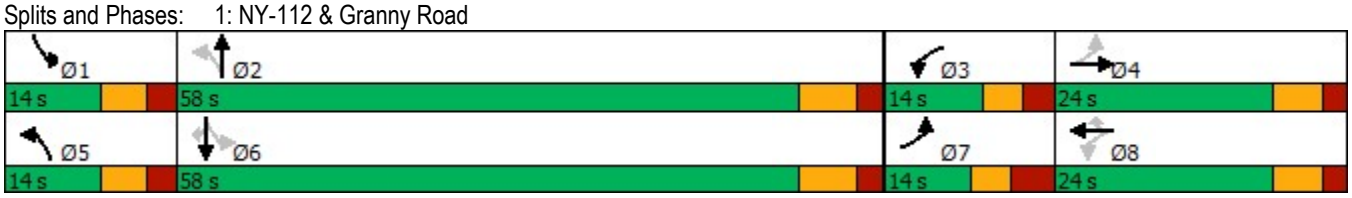
Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	66.5%	ICU Level of Service	C	
Analysis Period (min)	15			

NO BUILD VOLUMES CAPACITY ANALYSIS

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	72	72	141	115	71	50	475	63	525	79
Future Volume (vph)	72	72	141	115	71	50	475	63	525	79
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.0	5.0	3.0	5.0	5.0	3.0	10.0	3.0	10.0	10.0
Minimum Split (s)	9.9	23.2	8.9	23.2	23.2	9.2	37.0	9.2	37.0	37.0
Total Split (s)	14.0	24.0	14.0	24.0	24.0	14.0	58.0	14.0	58.0	58.0
Total Split (%)	12.7%	21.8%	12.7%	21.8%	21.8%	12.7%	52.7%	12.7%	52.7%	52.7%
Yellow Time (s)	3.2	4.0	3.2	4.0	4.0	3.9	4.7	3.9	4.7	4.7
All-Red Time (s)	3.7	2.2	2.7	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.2	5.9	6.2	6.2	6.2	7.0	6.2	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	18.9	12.7	22.6	16.1	16.1	57.8	51.4	58.0	51.6	51.6
Actuated g/C Ratio	0.19	0.12	0.22	0.16	0.16	0.57	0.50	0.57	0.51	0.51
v/c Ratio	0.34	0.66	0.64	0.50	0.22	0.13	0.41	0.17	0.33	0.11
Control Delay	35.3	45.9	45.1	49.4	1.4	9.5	17.4	9.8	17.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	45.9	45.1	49.4	1.4	9.5	17.4	9.8	17.1	0.3
LOS	D	D	D	D	A	A	B	A	B	A
Approach Delay		42.4		37.1			16.8		14.4	
Approach LOS		D		D			B		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 102	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 22.7	Intersection LOS: C
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

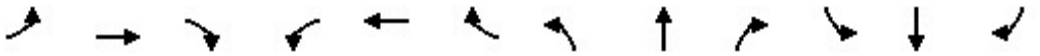
Splits and Phases: 1: NY-112 & Granny Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	298	46	204	256	118	121	623	231	194	531	84
Future Volume (vph)	92	298	46	204	256	118	121	623	231	194	531	84
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	12.1	27.0	27.0	12.1	27.0	27.0	12.6	43.3	43.3	12.6	43.3	43.3
Total Split (s)	20.0	27.0	27.0	20.0	27.0	27.0	29.0	44.0	44.0	29.0	44.0	44.0
Total Split (%)	16.7%	22.5%	22.5%	16.7%	22.5%	22.5%	24.2%	36.7%	36.7%	24.2%	36.7%	36.7%
Yellow Time (s)	4.3	5.0	5.0	4.3	5.0	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	2.8	2.0	2.0	2.8	2.0	2.0	4.0	2.3	2.3	4.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.0	7.0	7.1	7.0	7.0	7.6	7.3	7.3	7.6	7.3	7.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	10.7	14.6	14.6	11.3	18.9	18.9	9.6	27.8	27.8	11.7	30.0	30.0
Actuated g/C Ratio	0.11	0.15	0.15	0.12	0.20	0.20	0.10	0.29	0.29	0.12	0.32	0.32
v/c Ratio	0.56	0.61	0.21	0.57	0.44	0.32	0.41	0.75	0.41	0.52	0.53	0.15
Control Delay	56.9	44.7	41.0	48.4	40.0	4.5	47.1	36.6	5.7	46.4	29.2	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	44.7	41.0	48.4	40.0	4.5	47.1	36.6	5.7	46.4	29.2	0.5
LOS	E	D	D	D	D	A	D	D	A	D	C	A
Approach Delay		46.9			35.7			30.6			30.3	
Approach LOS		D			D			C			C	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 95.2		
Natural Cycle: 95		
Control Type: Semi Act-Uncoord		
Maximum v/c Ratio: 0.75		
Intersection Signal Delay: 34.1	Intersection LOS: C	
Intersection Capacity Utilization 61.0%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 2: NY-112 & Horseblock Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	7	0	0	1	3	612	2	0	742	7
Future Volume (Veh/h)	2	0	7	0	0	1	3	612	2	0	742	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.45	0.45	0.45	0.25	0.25	0.25	0.86	0.86	0.86	0.95	0.95	0.95
Hourly flow rate (vph)	4	0	16	0	0	4	3	712	2	0	781	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											696	
pX, platoon unblocked	0.77	0.77	0.77	0.77	0.77		0.77					
vC, conflicting volume	1506	1504	784	1518	1506	712	788			714		
vC1, stage 1 conf vol	784	784		718	718							
vC2, stage 2 conf vol	722	720		800	788							
vCu, unblocked vol	1508	1506	574	1524	1508	712	579			714		
tC, single (s)	7.6	6.5	6.2	7.1	6.5	7.2	4.1			4.1		
tC, 2 stage (s)	6.6	5.5		6.1	5.5							
tF (s)	4.0	4.0	3.3	3.5	4.0	4.2	2.2			2.2		
p0 queue free %	98	100	96	100	100	99	100			100		
cM capacity (veh/h)	239	298	403	277	296	304	777			895		

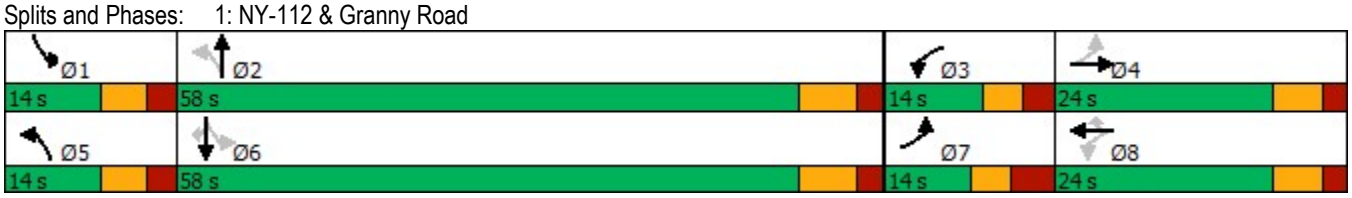
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	20	4	715	2	788
Volume Left	4	0	3	0	0
Volume Right	16	4	0	2	7
cSH	355	304	777	1700	895
Volume to Capacity	0.06	0.01	0.00	0.00	0.00
Queue Length 95th (ft)	4	1	0	0	0
Control Delay (s)	15.8	17.0	0.1	0.0	0.0
Lane LOS	C	C	A		
Approach Delay (s)	15.8	17.0	0.1		0.0
Approach LOS	C	C			

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	56.1%	ICU Level of Service		B
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	124	171	121	140	96	84	798	108	566	77
Future Volume (vph)	124	171	121	140	96	84	798	108	566	77
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.0	5.0	3.0	5.0	5.0	3.0	10.0	3.0	10.0	10.0
Minimum Split (s)	9.9	23.2	8.9	23.2	23.2	9.2	37.0	9.2	37.0	37.0
Total Split (s)	14.0	24.0	14.0	24.0	24.0	14.0	58.0	14.0	58.0	58.0
Total Split (%)	12.7%	21.8%	12.7%	21.8%	21.8%	12.7%	52.7%	12.7%	52.7%	52.7%
Yellow Time (s)	3.2	4.0	3.2	4.0	4.0	3.9	4.7	3.9	4.7	4.7
All-Red Time (s)	3.7	2.2	2.7	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.2	5.9	6.2	6.2	6.2	7.0	6.2	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	23.2	16.8	25.2	16.8	16.8	59.0	51.0	60.8	53.8	53.8
Actuated g/C Ratio	0.21	0.15	0.23	0.15	0.15	0.54	0.47	0.56	0.49	0.49
v/c Ratio	0.51	0.86	0.69	0.57	0.29	0.18	0.60	0.45	0.36	0.10
Control Delay	39.5	68.8	50.1	51.4	3.0	10.5	23.0	15.7	18.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	68.8	50.1	51.4	3.0	10.5	23.0	15.7	18.7	0.2
LOS	D	E	D	D	A	B	C	B	B	A
Approach Delay		58.8		38.0			22.0		16.4	
Approach LOS		E		D			C		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 108.8	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 28.0	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

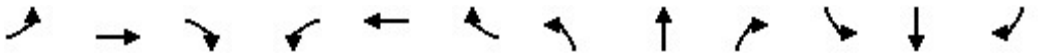
Splits and Phases: 1: NY-112 & Granny Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	457	72	185	427	218	194	952	408	251	658	99
Future Volume (vph)	102	457	72	185	427	218	194	952	408	251	658	99
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	12.1	43.0	43.0	12.1	43.0	43.0	12.6	49.3	49.3	12.6	49.3	49.3
Total Split (s)	19.0	43.0	43.0	19.0	43.0	43.0	24.0	64.0	64.0	24.0	64.0	64.0
Total Split (%)	12.7%	28.7%	28.7%	12.7%	28.7%	28.7%	16.0%	42.7%	42.7%	16.0%	42.7%	42.7%
Yellow Time (s)	4.3	5.0	5.0	4.3	5.0	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	2.8	2.0	2.0	2.8	2.0	2.0	4.0	2.3	2.3	4.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.0	7.0	7.1	7.0	7.0	7.6	7.3	7.3	7.6	7.3	7.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	12.0	27.1	27.1	11.7	26.8	26.8	13.6	49.8	49.8	15.0	51.2	51.2
Actuated g/C Ratio	0.09	0.20	0.20	0.09	0.20	0.20	0.10	0.37	0.37	0.11	0.38	0.38
v/c Ratio	0.80	0.77	0.30	0.74	0.73	0.51	0.62	0.84	0.63	0.74	0.54	0.16
Control Delay	96.5	59.0	49.5	77.4	57.2	9.8	67.8	45.3	19.6	71.7	34.1	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.5	59.0	49.5	77.4	57.2	9.8	67.8	45.3	19.6	71.7	34.1	2.5
LOS	F	E	D	E	E	A	E	D	B	E	C	A
Approach Delay		63.9			49.3			41.4			40.4	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 133.1	
Natural Cycle: 120	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 46.5	Intersection LOS: D
Intersection Capacity Utilization 75.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: NY-112 & Horseblock Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	4	3	2	8	4	1012	10	1	763	14
Future Volume (Veh/h)	7	0	4	3	2	8	4	1012	10	1	763	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.81	0.81	0.81	0.99	0.99	0.99	0.91	0.91	0.91
Hourly flow rate (vph)	10	0	6	4	2	10	4	1022	10	1	838	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											696	
pX, platoon unblocked	0.77	0.77	0.77	0.77	0.77		0.77					
vC, conflicting volume	1888	1888	846	1884	1885	1022	853			1032		
vC1, stage 1 conf vol	848	848		1030	1030							
vC2, stage 2 conf vol	1041	1040		854	855							
vCu, unblocked vol	2005	2004	649	1999	2001	1022	659			1032		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	98	98	99	97	99			100		
cM capacity (veh/h)	207	230	364	211	230	289	722			681		

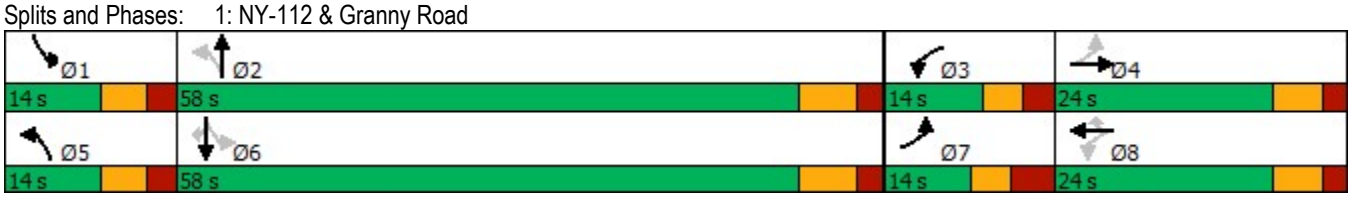
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	16	16	1026	10	854
Volume Left	10	4	4	0	1
Volume Right	6	10	0	10	15
cSH	247	257	722	1700	681
Volume to Capacity	0.06	0.06	0.01	0.01	0.00
Queue Length 95th (ft)	5	5	0	0	0
Control Delay (s)	20.6	19.9	0.2	0.0	0.0
Lane LOS	C	C	A		A
Approach Delay (s)	20.6	19.9	0.2		0.0
Approach LOS	C	C			

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	66.3%	ICU Level of Service		C
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	87	124	139	105	75	74	617	57	602	84
Future Volume (vph)	87	124	139	105	75	74	617	57	602	84
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.0	5.0	3.0	5.0	5.0	3.0	10.0	3.0	10.0	10.0
Minimum Split (s)	9.9	23.2	8.9	23.2	23.2	9.2	37.0	9.2	37.0	37.0
Total Split (s)	14.0	24.0	14.0	24.0	24.0	14.0	58.0	14.0	58.0	58.0
Total Split (%)	12.7%	21.8%	12.7%	21.8%	21.8%	12.7%	52.7%	12.7%	52.7%	52.7%
Yellow Time (s)	3.2	4.0	3.2	4.0	4.0	3.9	4.7	3.9	4.7	4.7
All-Red Time (s)	3.7	2.2	2.7	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.2	5.9	6.2	6.2	6.2	7.0	6.2	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	21.9	15.6	25.5	19.0	19.0	58.1	51.6	57.7	51.4	51.4
Actuated g/C Ratio	0.21	0.15	0.24	0.18	0.18	0.55	0.49	0.55	0.49	0.49
v/c Ratio	0.33	0.79	0.68	0.36	0.20	0.16	0.45	0.16	0.36	0.11
Control Delay	34.0	58.4	48.7	44.4	1.1	10.2	18.8	10.3	18.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	58.4	48.7	44.4	1.1	10.2	18.8	10.3	18.4	0.3
LOS	C	E	D	D	A	B	B	B	B	A
Approach Delay		51.3		36.1			18.0		15.8	
Approach LOS		D		D			B		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.9	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

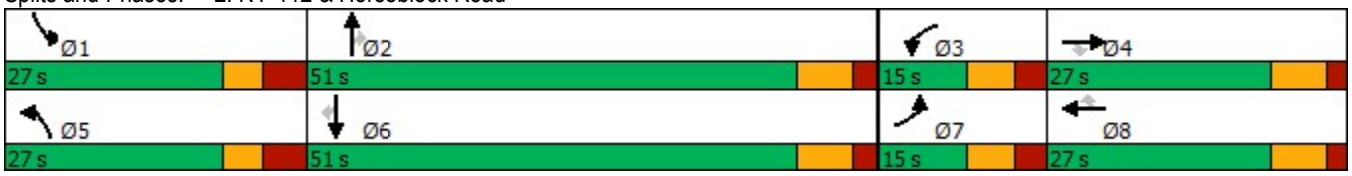
Splits and Phases: 1: NY-112 & Granny Road

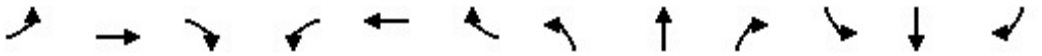


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	449	79	196	391	192	159	683	365	261	614	84
Future Volume (vph)	121	449	79	196	391	192	159	683	365	261	614	84
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	12.1	27.0	27.0	12.1	27.0	27.0	12.6	49.3	49.3	12.6	49.3	49.3
Total Split (s)	15.0	27.0	27.0	15.0	27.0	27.0	27.0	51.0	51.0	27.0	51.0	51.0
Total Split (%)	12.5%	22.5%	22.5%	12.5%	22.5%	22.5%	22.5%	42.5%	42.5%	22.5%	42.5%	42.5%
Yellow Time (s)	4.3	5.0	5.0	4.3	5.0	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	2.8	2.0	2.0	2.8	2.0	2.0	4.0	2.3	2.3	4.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.0	7.0	7.1	7.0	7.0	7.6	7.3	7.3	7.6	7.3	7.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	8.0	18.2	18.2	8.0	18.2	18.2	10.5	29.7	29.7	13.7	32.9	32.9
Actuated g/C Ratio	0.08	0.18	0.18	0.08	0.18	0.18	0.11	0.30	0.30	0.14	0.33	0.33
v/c Ratio	0.98	0.76	0.32	0.85	0.73	0.49	0.47	0.71	0.61	0.60	0.57	0.14
Control Delay	122.5	48.6	41.8	74.8	47.0	9.4	48.4	35.2	15.6	47.3	29.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	122.5	48.6	41.8	74.8	47.0	9.4	48.4	35.2	15.6	47.3	29.4	0.5
LOS	F	D	D	E	D	A	D	D	B	D	C	A
Approach Delay		61.6			44.7			31.0			31.7	
Approach LOS		E			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.1	
Natural Cycle: 105	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 39.9	Intersection LOS: D
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: NY-112 & Horseblock Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	1	15	0	18	4	783	40	20	811	3
Future Volume (Veh/h)	5	0	1	15	0	18	4	783	40	20	811	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.78	0.78	0.78	0.97	0.97	0.97	0.96	0.96	0.96
Hourly flow rate (vph)	7	0	1	19	0	23	4	807	41	21	845	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											696	
pX, platoon unblocked	0.76	0.76	0.76	0.76	0.76		0.76					
vC, conflicting volume	1726	1744	846	1704	1705	807	848			848		
vC1, stage 1 conf vol	888	888		815	815							
vC2, stage 2 conf vol	838	856		890	890							
vCu, unblocked vol	1799	1823	637	1770	1771	807	639			848		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	100	92	100	94	99			97		
cM capacity (veh/h)	223	241	364	238	250	385	723			798		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	8	42	811	41	869
Volume Left	7	19	4	0	21
Volume Right	1	23	0	41	3
cSH	234	301	723	1700	798
Volume to Capacity	0.03	0.14	0.01	0.02	0.03
Queue Length 95th (ft)	3	12	0	0	2
Control Delay (s)	20.9	18.9	0.2	0.0	0.7
Lane LOS	C	C	A		A
Approach Delay (s)	20.9	18.9	0.1		0.7
Approach LOS	C	C			

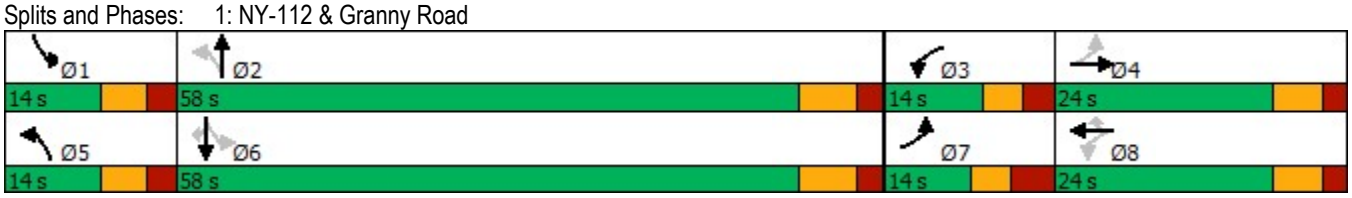
Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	69.0%	ICU Level of Service		C
Analysis Period (min)	15			

BUILD VOLUMES CAPACITY ANALYSIS

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	72	72	141	115	71	52	488	63	528	79
Future Volume (vph)	72	72	141	115	71	52	488	63	528	79
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.0	5.0	3.0	5.0	5.0	3.0	10.0	3.0	10.0	10.0
Minimum Split (s)	9.9	23.2	8.9	23.2	23.2	9.2	37.0	9.2	37.0	37.0
Total Split (s)	14.0	24.0	14.0	24.0	24.0	14.0	58.0	14.0	58.0	58.0
Total Split (%)	12.7%	21.8%	12.7%	21.8%	21.8%	12.7%	52.7%	12.7%	52.7%	52.7%
Yellow Time (s)	3.2	4.0	3.2	4.0	4.0	3.9	4.7	3.9	4.7	4.7
All-Red Time (s)	3.7	2.2	2.7	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.2	5.9	6.2	6.2	6.2	7.0	6.2	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	18.9	12.7	22.6	16.1	16.1	57.8	51.4	58.0	51.5	51.5
Actuated g/C Ratio	0.19	0.12	0.22	0.16	0.16	0.57	0.50	0.57	0.50	0.50
v/c Ratio	0.34	0.66	0.64	0.50	0.22	0.13	0.42	0.17	0.34	0.11
Control Delay	35.3	45.9	45.1	49.4	1.4	9.5	17.6	9.9	17.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	45.9	45.1	49.4	1.4	9.5	17.6	9.9	17.1	0.3
LOS	D	D	D	D	A	A	B	A	B	A
Approach Delay		42.4		37.1			16.9		14.4	
Approach LOS		D		D			B		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 102	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 22.7	Intersection LOS: C
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

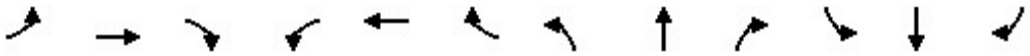
Splits and Phases: 1: NY-112 & Granny Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	298	46	204	256	190	121	627	231	200	548	86
Future Volume (vph)	92	298	46	204	256	190	121	627	231	200	548	86
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	12.1	27.0	27.0	12.1	27.0	27.0	12.6	43.3	43.3	12.6	43.3	43.3
Total Split (s)	20.0	27.0	27.0	20.0	27.0	27.0	29.0	44.0	44.0	29.0	44.0	44.0
Total Split (%)	16.7%	22.5%	22.5%	16.7%	22.5%	22.5%	24.2%	36.7%	36.7%	24.2%	36.7%	36.7%
Yellow Time (s)	4.3	5.0	5.0	4.3	5.0	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	2.8	2.0	2.0	2.8	2.0	2.0	4.0	2.3	2.3	4.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.0	7.0	7.1	7.0	7.0	7.6	7.3	7.3	7.6	7.3	7.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	10.7	14.6	14.6	11.3	18.9	18.9	9.6	28.1	28.1	12.0	30.4	30.4
Actuated g/C Ratio	0.11	0.15	0.15	0.12	0.20	0.20	0.10	0.29	0.29	0.13	0.32	0.32
v/c Ratio	0.56	0.61	0.21	0.57	0.44	0.47	0.41	0.75	0.41	0.53	0.54	0.15
Control Delay	57.2	45.0	41.2	48.7	40.2	9.7	47.3	36.9	5.7	46.6	29.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	45.0	41.2	48.7	40.2	9.7	47.3	36.9	5.7	46.6	29.4	0.5
LOS	E	D	D	D	D	A	D	D	A	D	C	A
Approach Delay		47.2			34.0			30.8			30.5	
Approach LOS		D			C			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 95.7	
Natural Cycle: 95	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 33.9	Intersection LOS: C
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: NY-112 & Horseblock Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	7	0	0	5	3	625	2	0	746	7
Future Volume (Veh/h)	2	0	7	0	0	5	3	625	2	0	746	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.45	0.45	0.45	0.25	0.25	0.25	0.86	0.86	0.86	0.95	0.95	0.95
Hourly flow rate (vph)	4	0	16	0	0	20	3	727	2	0	785	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								723			696	
pX, platoon unblocked	0.83	0.83	0.77	0.83	0.83	0.87	0.77			0.87		
vC, conflicting volume	1542	1524	788	1538	1525	727	792			729		
vC1, stage 1 conf vol	788	788		733	733							
vC2, stage 2 conf vol	753	735		804	792							
vCu, unblocked vol	1212	1190	578	1207	1192	616	582			619		
tC, single (s)	7.6	6.5	6.2	7.1	6.5	7.2	4.1			4.1		
tC, 2 stage (s)	6.6	5.5		6.1	5.5							
tF (s)	4.0	4.0	3.3	3.5	4.0	4.2	2.2			2.2		
p0 queue free %	98	100	96	100	100	93	100			100		
cM capacity (veh/h)	242	313	401	292	312	307	773			850		

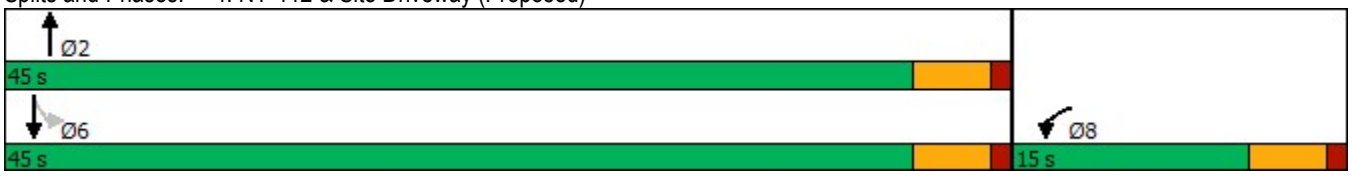
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	20	20	730	2	792
Volume Left	4	0	3	0	0
Volume Right	16	20	0	2	7
cSH	354	307	773	1700	850
Volume to Capacity	0.06	0.07	0.00	0.00	0.00
Queue Length 95th (ft)	4	5	0	0	0
Control Delay (s)	15.8	17.6	0.1	0.0	0.0
Lane LOS	C	C	A		
Approach Delay (s)	15.8	17.6	0.1		0.0
Approach LOS	C	C			

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	56.4%	ICU Level of Service		B
Analysis Period (min)	15			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	25	617	4	749
Future Volume (vph)	25	617	4	749
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5
Total Split (s)	15.0	45.0	45.0	45.0
Total Split (%)	25.0%	75.0%	75.0%	75.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Max	Max	Max
Act Effct Green (s)	6.6	52.0	52.0	52.0
Actuated g/C Ratio	0.11	0.88	0.88	0.88
v/c Ratio	0.20	0.43	0.01	0.51
Control Delay	19.3	3.3	2.2	4.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	19.3	3.3	2.2	4.1
LOS	B	A	A	A
Approach Delay	19.3	3.3		4.1
Approach LOS	B	A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 58.9	
Natural Cycle: 45	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 4.1	Intersection LOS: A
Intersection Capacity Utilization 51.1%	ICU Level of Service A
Analysis Period (min) 15	

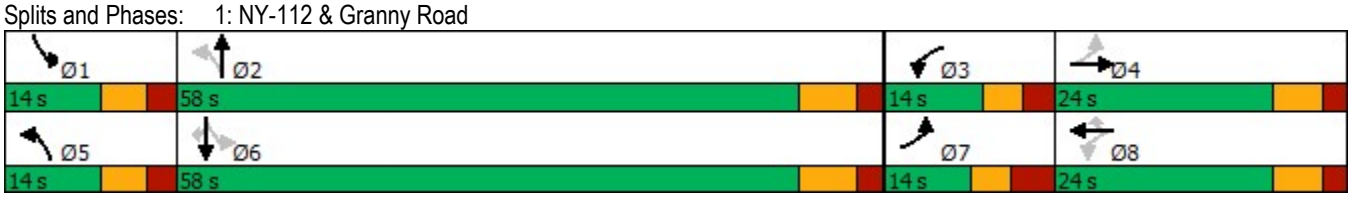
Splits and Phases: 4: NY-112 & Site Driveway (Proposed)



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	124	171	123	140	96	84	802	108	575	77
Future Volume (vph)	124	171	123	140	96	84	802	108	575	77
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.0	5.0	3.0	5.0	5.0	3.0	10.0	3.0	10.0	10.0
Minimum Split (s)	9.9	23.2	8.9	23.2	23.2	9.2	37.0	9.2	37.0	37.0
Total Split (s)	14.0	24.0	14.0	24.0	24.0	14.0	58.0	14.0	58.0	58.0
Total Split (%)	12.7%	21.8%	12.7%	21.8%	21.8%	12.7%	52.7%	12.7%	52.7%	52.7%
Yellow Time (s)	3.2	4.0	3.2	4.0	4.0	3.9	4.7	3.9	4.7	4.7
All-Red Time (s)	3.7	2.2	2.7	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.2	5.9	6.2	6.2	6.2	7.0	6.2	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	23.3	16.9	25.3	16.9	16.9	59.1	51.0	60.9	53.9	53.9
Actuated g/C Ratio	0.21	0.16	0.23	0.16	0.16	0.54	0.47	0.56	0.49	0.49
v/c Ratio	0.50	0.86	0.70	0.57	0.29	0.19	0.61	0.46	0.37	0.10
Control Delay	39.4	69.3	51.2	51.4	3.0	10.5	23.1	15.8	18.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.4	69.3	51.2	51.4	3.0	10.5	23.1	15.8	18.8	0.2
LOS	D	E	D	D	A	B	C	B	B	A
Approach Delay		59.1		38.4			22.1		16.5	
Approach LOS		E		D			C		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 108.9	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 28.1	Intersection LOS: C
Intersection Capacity Utilization 73.2%	ICU Level of Service D
Analysis Period (min) 15	

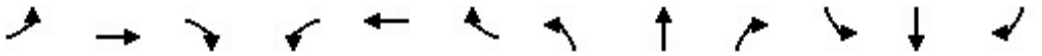
Splits and Phases: 1: NY-112 & Granny Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	457	72	185	427	223	194	964	408	253	663	99
Future Volume (vph)	104	457	72	185	427	223	194	964	408	253	663	99
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	12.1	43.0	43.0	12.1	43.0	43.0	12.6	49.3	49.3	12.6	49.3	49.3
Total Split (s)	19.0	43.0	43.0	19.0	43.0	43.0	24.0	64.0	64.0	24.0	64.0	64.0
Total Split (%)	12.7%	28.7%	28.7%	12.7%	28.7%	28.7%	16.0%	42.7%	42.7%	16.0%	42.7%	42.7%
Yellow Time (s)	4.3	5.0	5.0	4.3	5.0	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	2.8	2.0	2.0	2.8	2.0	2.0	4.0	2.3	2.3	4.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.0	7.0	7.1	7.0	7.0	7.6	7.3	7.3	7.6	7.3	7.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	12.1	27.2	27.2	11.7	26.8	26.8	13.6	50.2	50.2	15.1	51.6	51.6
Actuated g/C Ratio	0.09	0.20	0.20	0.09	0.20	0.20	0.10	0.38	0.38	0.11	0.39	0.39
v/c Ratio	0.81	0.77	0.30	0.75	0.73	0.52	0.63	0.84	0.62	0.74	0.54	0.16
Control Delay	98.3	59.2	49.7	77.9	57.4	10.9	68.1	45.8	19.6	72.2	34.1	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.3	59.2	49.7	77.9	57.4	10.9	68.1	45.8	19.6	72.2	34.1	2.5
LOS	F	E	D	E	E	B	E	D	B	E	C	A
Approach Delay		64.5			49.5			41.7			40.6	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 133.6	
Natural Cycle: 120	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 46.9	Intersection LOS: D
Intersection Capacity Utilization 75.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: NY-112 & Horseblock Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	4	3	2	9	4	1016	12	2	775	14
Future Volume (Veh/h)	7	0	4	3	2	9	4	1016	12	2	775	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.81	0.81	0.81	0.99	0.99	0.99	0.91	0.91	0.91
Hourly flow rate (vph)	10	0	6	4	2	11	4	1026	12	2	852	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								723			696	
pX, platoon unblocked	0.32	0.32	0.76	0.32	0.32	0.20	0.76			0.20		
vC, conflicting volume	1910	1910	860	1904	1905	1026	867			1038		
vC1, stage 1 conf vol	864	864		1034	1034							
vC2, stage 2 conf vol	1046	1046		870	871							
vCu, unblocked vol	1120	1120	662	1102	1106	0	672			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	100	98	98	99	95	99			99		
cM capacity (veh/h)	169	163	356	178	164	220	709			329		

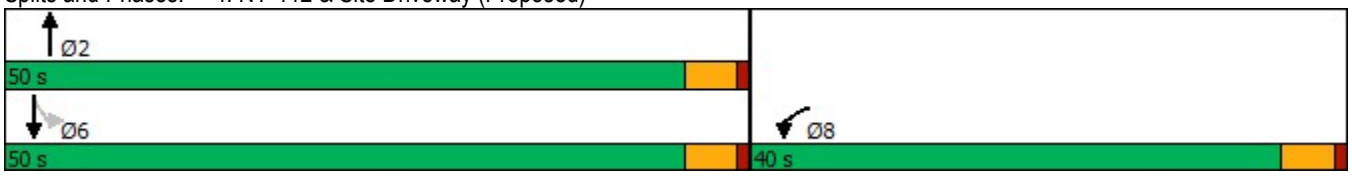
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	16	17	1030	12	869
Volume Left	10	4	4	0	2
Volume Right	6	11	0	12	15
cSH	211	201	709	1700	329
Volume to Capacity	0.08	0.08	0.01	0.01	0.01
Queue Length 95th (ft)	6	7	0	0	0
Control Delay (s)	23.5	24.6	0.2	0.0	0.2
Lane LOS	C	C	A		A
Approach Delay (s)	23.5	24.6	0.2		0.2
Approach LOS	C	C			

Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	66.4%	ICU Level of Service	C	
Analysis Period (min)	15			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	8	1028	12	771
Future Volume (vph)	8	1028	12	771
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5
Total Split (s)	40.0	50.0	50.0	50.0
Total Split (%)	44.4%	55.6%	55.6%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Max	Max	Max
Act Effct Green (s)	6.0	63.0	63.0	63.0
Actuated g/C Ratio	0.09	0.95	0.95	0.95
v/c Ratio	0.08	0.66	0.04	0.49
Control Delay	25.2	4.6	1.3	2.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.2	4.6	1.3	2.2
LOS	C	A	A	A
Approach Delay	25.3	4.6		2.2
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 66	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 3.7	Intersection LOS: A
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

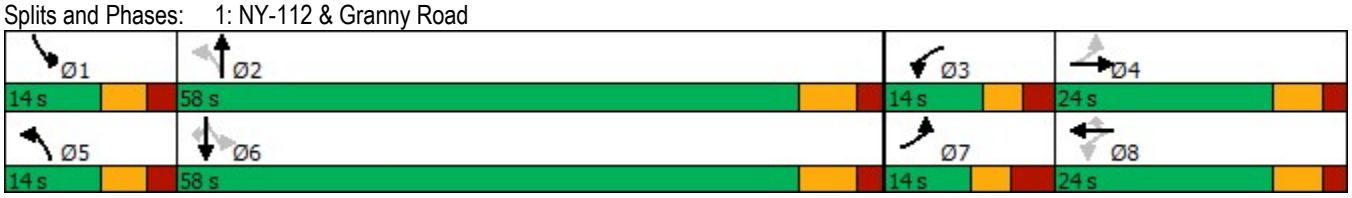
Splits and Phases: 4: NY-112 & Site Driveway (Proposed)



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	87	124	139	105	75	74	620	57	604	84
Future Volume (vph)	87	124	139	105	75	74	620	57	604	84
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.0	5.0	3.0	5.0	5.0	3.0	10.0	3.0	10.0	10.0
Minimum Split (s)	9.9	23.2	8.9	23.2	23.2	9.2	37.0	9.2	37.0	37.0
Total Split (s)	14.0	24.0	14.0	24.0	24.0	14.0	58.0	14.0	58.0	58.0
Total Split (%)	12.7%	21.8%	12.7%	21.8%	21.8%	12.7%	52.7%	12.7%	52.7%	52.7%
Yellow Time (s)	3.2	4.0	3.2	4.0	4.0	3.9	4.7	3.9	4.7	4.7
All-Red Time (s)	3.7	2.2	2.7	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.2	5.9	6.2	6.2	6.2	7.0	6.2	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	21.9	15.6	25.5	19.0	19.0	58.1	51.6	57.7	51.4	51.4
Actuated g/C Ratio	0.21	0.15	0.24	0.18	0.18	0.55	0.49	0.55	0.49	0.49
v/c Ratio	0.33	0.79	0.68	0.36	0.20	0.16	0.45	0.16	0.36	0.11
Control Delay	34.0	58.4	48.7	44.4	1.1	10.2	18.8	10.3	18.5	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	58.4	48.7	44.4	1.1	10.2	18.8	10.3	18.5	0.3
LOS	C	E	D	D	A	B	B	B	B	A
Approach Delay		51.3		36.1			18.1		15.8	
Approach LOS		D		D			B		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 104.9	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

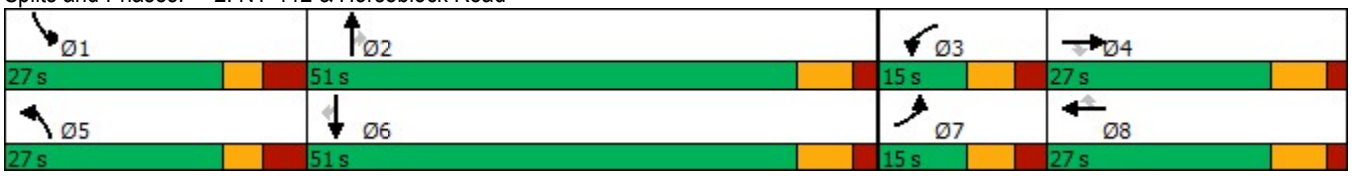
Splits and Phases: 1: NY-112 & Granny Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	449	79	196	391	193	159	685	365	262	617	84
Future Volume (vph)	121	449	79	196	391	193	159	685	365	262	617	84
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	12.1	27.0	27.0	12.1	27.0	27.0	12.6	49.3	49.3	12.6	49.3	49.3
Total Split (s)	15.0	27.0	27.0	15.0	27.0	27.0	27.0	51.0	51.0	27.0	51.0	51.0
Total Split (%)	12.5%	22.5%	22.5%	12.5%	22.5%	22.5%	22.5%	42.5%	42.5%	22.5%	42.5%	42.5%
Yellow Time (s)	4.3	5.0	5.0	4.3	5.0	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	2.8	2.0	2.0	2.8	2.0	2.0	4.0	2.3	2.3	4.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.0	7.0	7.1	7.0	7.0	7.6	7.3	7.3	7.6	7.3	7.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	8.0	18.2	18.2	8.0	18.2	18.2	10.5	29.7	29.7	13.7	33.0	33.0
Actuated g/C Ratio	0.08	0.18	0.18	0.08	0.18	0.18	0.11	0.30	0.30	0.14	0.33	0.33
v/c Ratio	0.98	0.76	0.32	0.85	0.73	0.49	0.47	0.71	0.61	0.60	0.57	0.14
Control Delay	122.5	48.7	41.9	75.0	47.1	9.4	48.5	35.3	15.6	47.4	29.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	122.5	48.7	41.9	75.0	47.1	9.4	48.5	35.3	15.6	47.4	29.4	0.5
LOS	F	D	D	E	D	A	D	D	B	D	C	A
Approach Delay		61.7			44.8			31.1			31.8	
Approach LOS		E			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.2	
Natural Cycle: 105	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 68.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: NY-112 & Horseblock Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	1	15	0	18	4	786	40	20	813	3
Future Volume (Veh/h)	5	0	1	15	0	18	4	786	40	20	813	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.78	0.78	0.78	0.97	0.97	0.97	0.96	0.96	0.96
Hourly flow rate (vph)	7	0	1	19	0	23	4	810	41	21	847	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								723			696	
pX, platoon unblocked	0.82	0.82	0.76	0.82	0.82	0.87	0.76			0.87		
vC, conflicting volume	1732	1750	848	1710	1710	810	850			851		
vC1, stage 1 conf vol	890	890		818	818							
vC2, stage 2 conf vol	841	859		892	892							
vCu, unblocked vol	1434	1456	639	1407	1408	710	641			757		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	100	92	100	94	99			97		
cM capacity (veh/h)	234	251	363	250	262	382	721			754		

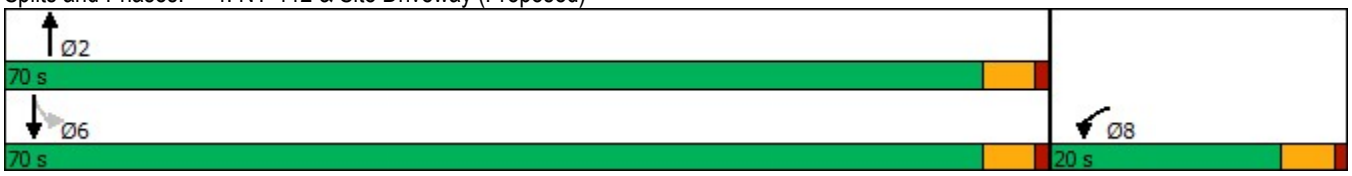
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	8	42	814	41	871
Volume Left	7	19	4	0	21
Volume Right	1	23	0	41	3
cSH	245	308	721	1700	754
Volume to Capacity	0.03	0.14	0.01	0.02	0.03
Queue Length 95th (ft)	3	12	0	0	2
Control Delay (s)	20.2	18.5	0.2	0.0	0.8
Lane LOS	C	C	A		A
Approach Delay (s)	20.2	18.5	0.1		0.8
Approach LOS	C	C			

Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	69.1%	ICU Level of Service		C
Analysis Period (min)	15			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	4	827	2	827
Future Volume (vph)	4	827	2	827
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5
Total Split (s)	20.0	70.0	70.0	70.0
Total Split (%)	22.2%	77.8%	77.8%	77.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Max	Max	Max
Act Effct Green (s)	5.9	84.4	84.4	84.4
Actuated g/C Ratio	0.07	0.97	0.97	0.97
v/c Ratio	0.06	0.52	0.00	0.52
Control Delay	34.0	2.0	1.0	2.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	34.0	2.0	1.0	2.0
LOS	C	A	A	A
Approach Delay	34.0	2.0		2.0
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.3	
Natural Cycle: 50	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 2.1	Intersection LOS: A
Intersection Capacity Utilization 55.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: NY-112 & Site Driveway (Proposed)



APPENDIX E

SIGNAL WARRANT ANALYSIS

SIGNAL WARRANT ANALYSIS

Introduction

Nelson + Pope has performed a signal warrant analysis in accordance with the most recent version of the Federal Manual on Uniform Traffic Control Devices (MUTCD) for the proposed intersection of NYS Route 112 at PSEG Medford facility driveway in Medford, Town of Brookhaven, New York. This warrant analysis was conducted for the future conditions considering the existing traffic volumes on NYS Route 112 and the anticipated future traffic volumes after the construction of the proposed PSEG facility in Medford. The following is a summary of the relevant site information and the evaluation of each of the warrants.

Existing Roadway Condition

NYS Route 112 is a north/south arterial that provides one lane per travel direction with a two-way center left turn lane and exclusive turn lanes at key intersections in the vicinity of the study area. The section of NYS Route 112 between Granny Road and Horseblock Road has an average annual daily traffic (AADT) volume of approximately 26,014 vehicles per day (source: 2023 Traffic Count Data collected by Nelson + Pope). The posted speed limit on NYS Route 112 in the vicinity of the study area is 40 MPH. Along NYS Route 112 in the vicinity of the site, the horizontal alignment is straight, and the vertical alignment is flat. The land uses along this roadway are predominantly commercial.

2023 Existing Volumes

- Automatic Traffic Recorder (ATR) machines were installed on the northbound, and southbound of NYS Route 112 at the existing site driveway for a period of nine days (9) days (April 22, 2023 – April 30, 2023) to collect hourly volumes.

- Turning movement traffic counts were conducted at the intersection of NYS Route 112 at existing site access on a typical weekday and Saturday from 7:00 AM to 7:00 PM.

The Existing Conditions Warrant Analysis was conducted based upon the April 2023 volumes recorded for the intersection of NYS Route 112 at existing site access. The northbound and southbound traffic volumes recorded on the NYS Route 112 were utilized to perform signal warrant analysis.

The existing volumes were adjusted to future 2026 volumes using annual growth factors obtained by performing a review of available resources: growth trends demonstrated through historic traffic data and information provided in the Long Island Transportation

Plan (LITP) 2000 study model or annual growth factors developed for the New York Metropolitan Transportation Council's Best Practices Model (BMP). These volumes are referred to as the No-Build Volumes.

Trip Generation

The trips generated by an existing PSEG facility located in Patchogue were counted during the weekday and Saturday from 6:30 AM to 8:00 PM to calculate the number of trips generated by the existing PSEG facility. The ITE publication, Trip Generation, 11th Edition, has no land use code similar to the PSEF facility. Hence, to calculate the trips for the proposed PSEG facility, a rate was developed based on the trip counts, total number of staff and fleet size of the existing PSEG facility located in Patchogue. The generated traffic is based on the rate developed from the existing PSEG facility located in Patchogue. For analyses purposes it is assumed that at least 90% of the site generated traffic will utilize the proposed site access if a traffic signal is granted. The site generated volumes were broken down based on time of day and anticipated routing.

2026 Build Conditions

The Build Conditions Warrant Analysis includes the use of the No Build Conditions volumes as well as the anticipated volumes of traffic for the proposed project.

Evaluation of Warrants

The investigation of the need for a traffic control signal shall include an analysis of the applicable factors contained in the following traffic signal warrants and other factors related to existing operation and safety of the study location:

Warrant 1, Eight-Hour Vehicular Volume
Warrant 2, Four-Hour Vehicular Volume
Warrant 3, Peak Hour
Warrant 4, Pedestrian Volume
Warrant 5, School Crossing
Warrant 6, Coordinated Signal System
Warrant 7, Crash Experience
Warrant 8, Roadway Network
Warrant 9, Intersection Near a Grade Crossing

The satisfaction of a traffic signal warrant, or warrants shall not in itself require the installation of a traffic control signal. The signal warrant is the threshold criteria that should be met in order to consider the installation of a traffic control signal. Of the nine warrants listed above, warrants 1, 2, and 3 were considered applicable for evaluation for this location. At this location NYS Route 112 will be considered the Major Street and proposed PSEG site driveway will be considered the Minor Street.

A description and analysis of each of the warrants is provided below and the detailed analyses for each warrant are presented in the attachments:

Warrant 1, Eight Hour Vehicular Volume

Warrant 1 is applicable under two conditions: The Minimum Vehicular Volume Condition (Condition A) and the Interruption of Continuous Traffic Condition (Condition B). It is intended that Warrant 1 be treated as a single warrant. If Condition A is satisfied, then the criterion for Warrant 1 is satisfied and an evaluation of Condition B and the combination of Conditions A and B are not needed. This is similar for Condition B.

<u>The Minimum Vehicular Volume Condition (Condition A)</u> - This applies where volume of intersecting traffic is the principal reason for consideration of a traffic signal. The warrant is satisfied when, for each of any 8 hours of an average day, a minimum of 500 vehicles exists on the artery road (one lane) and a minimum of 150 vehicles exists on either

approach of the side road (one lane). The artery and side road volumes must be for the same, but not necessarily consecutive 8 hours. When the 85th percentile speed of artery traffic exceeds forty miles per hour, the 8-hour minimum vehicular volumes are 70% of those above or 350 vehicles on the artery and 105 vehicles on either side road approach. Tables showing a detail description of this warrant is included in the Warrant analyses summary work sheets.

Interruption of Continuous Traffic (Condition B) - This applies where traffic volume on an artery is so heavy that side road traffic suffers excessive delay or hazard in entering or crossing the artery. The warrant is satisfied when, for each of any 8 hours of an average day, a minimum of 750 vehicles exists on the artery road and a minimum of 75 vehicles exists on either approach of the side road. The installation of a signal must not seriously disrupt progressive traffic flow. The artery and side road volumes must occur for the same 8 hours. When the 85th percentile speed of artery traffic exceeds forty miles per hour, the 8-hour minimum vehicular volumes are 70% of those listed above or 525 vehicles on the artery and 53 vehicles on either side road approach.

Evaluation of Warrant 1

Build Conditions: A review of the requirements indicates that the weekday traffic volumes on the artery of NYS Route 112 do not meet the minimum volume requirements of Warrant 1 under the Build conditions, also the site access volume is not sufficient to meet the minimum requirements of 150 vehicles per hour for eight hours under Condition A, or any of the adjusted remedial measures. The artery NYS Route 112 does not meet the minimum requirement of 750 vehicles per hour for 8 hours under the Build conditions and the site access volume is not sufficient to meet the minimum requirements of 75 vehicles per hour for the eight hours under Condition B, or any of the adjusted remedial measures. *Therefore, Warrant 1 is not met for the Weekday Build Conditions.*

Warrant 2, Four Hour Vehicular Volume

This warrant applies where volume of intersecting traffic is the principal reason for consideration of a traffic signal. The warrant is satisfied when, for each of four hours of an average day, a point representing the number of vehicles on the artery (in both directions) and the number of vehicles on the higher-volume side road (one direction only) is plotted on a graph. All four points must fall above the appropriate curve (Figure 4C-1) in the MUTCD). The artery and side road volumes are for the same four hours but do not need to be four consecutive hours. When the 85th percentile speed of artery traffic

exceeds forty miles per hour, the 4-hour volumes are plotted on a second curve (Figure 4C-2 in the MUTCD). These curves are included in the attached Warrant analyses summary work sheets.

Evaluation of Warrant 2

Build Conditions: Based on an interpretation of Figure 4C-1 in the MUTCD, the weekday traffic volumes needed to meet this warrant on NYS Route 112 and the proposed PSEG site access fall below the curve for 11 of 12 hours studied on an average weekday during the Build conditions. *Therefore, Warrant 2 is not met for the Weekday Build Conditions.*

Warrant 3, Peak-Hour

This warrant applies at locations where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. *If all three of the following conditions exists for the same 1 hour (any four consecutive 15-minute periods) of an average day:*
1. *The total stopped time delay experienced by the traffic on one minor- street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for one-lane approach; or 5 vehicle-hours for a two-lane approach, and*
2. *The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and*
3. *The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.*

B. *The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figures 4C-3 in the MUTCD for the existing combination of approach volumes. When the 85th percentile speed of artery traffic exceeds forty miles per hour, the peak hour volumes are plotted on a second curve (Figure 4C-4 in the MUTCD). These curves are included in the attached Warrant analyses summary work sheets***.***

Evaluation of Warrant 3

Build Conditions: Based on an interpretation of Figure 4C-3 in the MUTCD, the volumes needed to meet this warrant on NYS Route 112 and the proposed PSEG site access fall below the curve for all the 12 hours studied on an average weekday during the Build conditions. *Therefore, Warrant 3 is not met for the Weekday Build Conditions.*

Warrant Summary

The results of the signal warrant analysis based on the guidelines provided in the MUTCD demonstrate that none of the three (3) referenced signal warrants were met during the weekday for 2025 Build conditions.

Conclusions

From the results of the analyses, none of the three (3) signal warrants studied were met.

ATTACHMENTS

HCS7 Warrants Report

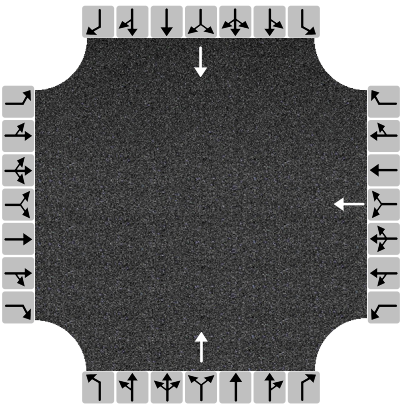
Project Information

Analyst	HM	Date	7/11/2023
Agency	N+P	Analysis Year	2023
Jurisdiction	Town of Brookhaven	Time Period Analyzed	4/25/2023
Project Description	Medford PSEG Facility		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	40	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	500		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	0	0	0	1	0	0	1	0	0	1	0
Lane Usage					T			T			T	
Vehicle Volumes Averages (veh/h)	0	0	0	0	13	0	0	731	0	0	656	0
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)		Tractor-Trailer Trucks (%)	10

HCS7 Warrants Report

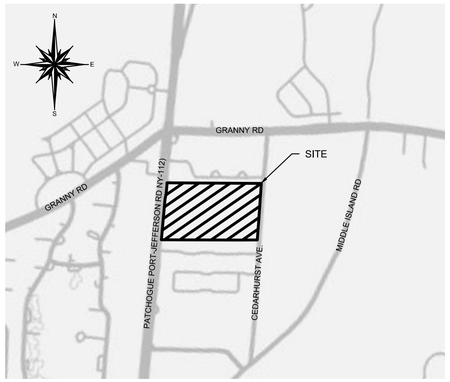
Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)	4A (100%)	4B (100%)
07 - 08	1264	27	1291	0	0	No	No	No	No	No	No	No	No	No
08 - 09	1308	33	1341	0	0	No	No	No	No	No	No	No	No	No
09 - 10	1264	12	1276	0	0	No	No	No	No	No	No	No	No	No
10 - 11	1201	8	1209	0	0	No	No	No	No	No	No	No	No	No
11 - 12	1181	18	1199	0	0	No	No	No	No	No	No	No	No	No
12 - 13	1364	10	1374	0	0	No	No	No	No	No	No	No	No	No
13 - 14	1323	10	1333	0	0	No	No	No	No	No	No	No	No	No
14 - 15	1419	9	1428	0	0	No	No	No	No	No	No	No	No	No
15 - 16	1579	10	1589	0	0	No	No	No	No	No	No	No	No	No
16 - 17	1696	14	1710	0	0	No	No	No	No	No	No	No	No	No
17 - 18	1602	5	1607	0	0	No	No	No	No	No	No	No	No	No
18 - 19	1460	5	1465	0	0	No	No	No	No	No	No	No	No	No
Total	16661	161	16822	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

PROPOSED LIPA / PSEGLI OPERATION CENTER SITUATED AT 3351 NY-112 MEDFORD, NY 11763 TOWN OF BROOKHAVEN, SUFFOLK COUNTY, NEW YORK



SHEET INDEX		
DRAWING No.	**SHEET No.**	**DRAWING NAME**
C-100	1	COVER SHEET
C-101	2	OVERALL ALIGNMENT PLAN
C-102	3	EXISTING CONDITIONS & DEMOLITION PLAN
C-103	4	OVERALL GRADING & DRAINAGE PLAN
C-104	5	WATER QUALITY CALCULATIONS
C-105	6	OVERALL UTILITY PLAN
C-106	7	LIGHTING PLAN
LA-101	8	LANDSCAPE PLAN
LA-102	9	LANDSCAPE DETAILS
C-107	10	EROSION CONTROL PLAN
EA-101	11	EARTH WORK PLAN

BOUNDARY FROM SURVEY PREPARED BY NELSON AND POPE DATED SEPTEMBER 02, 2022.

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW ARTICLE 145, PROFESSIONAL ENGINEERING AND LAND SURVEYING, SECTION 7209 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND SPECIFIC DESCRIPTION OF THE ALTERATION.

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GENERAL NOTES

1. NELSON & POPE SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF THE PUBLIC OR CONTRACTOR'S EMPLOYEES, OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

2. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS THAT WILL BE REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT FROM START TO FINISH, INCLUDING BUT NOT LIMITED TO PERMITS FOR MUNICIPAL ROAD AND CURB CUT CONSTRUCTION; GAS, ELECTRIC, TELEPHONE, AND CABLE INSTALLATION; WATER MAIN AND SERVICE INSTALLATION; SITE CLEARING AND TREE REMOVAL; EXCAVATION; SITE IMPROVEMENTS; DEMOLITION; AND BUILDING CONSTRUCTION. CONTRACTOR SHALL COORDINATE THE REQUIRED UTILITY AND MUNICIPAL INSPECTIONS.

3. LOCATION OF ALL EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO EXCAVATION. CONTRACTOR SHALL NOTIFY OWNER PRIOR TO COMMENCING CONSTRUCTION OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD LOCATIONS AND INFORMATION REPRESENTED ON PLAN. FOR DIRECTION. EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS IS BASED ON AVAILABLE INFORMATION AND FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR LOCATING AND IDENTIFYING ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR THE REMOVAL AND DISPOSAL OF ANY EXCAVATED AND DEMOLISHED MATERIALS AND DEBRIS.

5. UNSUITABLE MATERIAL (AS DEFINED IN THE REQUIREMENTS OF THE MUNICIPAL AGENCY HAVING JURISDICTION AND AS A MINIMUM DEFINED IN SECTION 203 OF N.Y.S.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION) UNDER PAVEMENT, WALKS AND CONCRETE SLABS OR AS INDICATED WITHIN THE SITE WORK CONTRACT DOCUMENTS, SHALL BE REMOVED AND REPLACED WITH SELECT GRANULAR MATERIAL.

6. SOILS:
   - 6.A. SUITABLE SOILS (SUITABLE MATERIAL): SUITABLE MATERIALS ARE GENERALLY COMPOSED OF SANDS, SAND-GRAVEL AND SAND-SILT MIXTURES (WITH NO MORE THAN 15% PASSING A #200 SIEVE) CONFORMING TO THE SPECIFIC SOIL MATERIAL AND TO THE SPECIFIC SPECIFICATIONS FOR ITS INTENDED USE CONTAINED HEREIN.
   - 6.B. UNSUITABLE SOILS (UNSUITABLE MATERIAL): SOIL CLASSIFICATION GROUPS GC, SC, CL, ML, OL, CH, MH, OH, AND PT ACCORDING TO ASTM D 2487, OR A COMBINATION OF THESE GROUPS. UNSUITABLE SOILS ALSO INCLUDE:
     - 6.B.1. ANY SOIL CONTAINING ROCK IN EXCESS OF 3-INCHES IN ANY DIRECTION, DEBRIS, TRASH, WASTE, FROZEN MATERIALS, HAZARDOUS MATERIAL AND, SOILS CONTAINING MATERIALS PROHIBITED BY THE JURISDICTIONAL ENTITIES, AND VEGETATION, AND OTHER DELETERIOUS AND ORGANIC MATTER.
     - 6.B.2. ANY SUITABLE SOILS NOT MAINTAINED WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT AT TIME OF COMPACTION.
     - 6.B.3. SOILS CONTAINING EXCESS WATER, REGARDLESS OF GRADATION, THAT ARE NOT IN THE OPINION OF THE DESIGN ENGINEER, ARCHITECT, STRUCTURAL ENGINEER, GEOTECHNICAL ENGINEER, DESIGN PROFESSIONAL OR JURISDICTIONAL ENTITY, THAT ARE NOT IN A STABLE CONDITION, EXHIBITS HEAVING WHILE UNDERGOING COMPACTION, EXHIBITS DISPLACEMENT WHEN UNDER A VEHICLE LOADING AND/OR OTHERWISE UNSUITABLE FOR ITS INTENDED USE.
     - 6.B.4. SOILS WITH MORE THAN 15 PERCENT MATERIAL PASSING A #200 (0.075 MM) SIEVE.
     - 6.B.5. SOILS NOT CONFORMING TO THE MATERIAL SPECIFICATIONS FOR ITS INTENDED USE.

7. COMPACTION SHALL CONFORM TO THE REQUIREMENTS OF THE MUNICIPAL AGENCY HAVING JURISDICTION AND AS A MINIMUM DEFINED IN SECTION 203 OF N.Y.S.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.

8. ALL EXISTING STRUCTURES AND SITE IMPROVEMENTS SPECIFIED TO BE REMOVED, SHALL BE COMPLETELY REMOVED AND BACKFILLED. BACKFILL TO BE SELECT GRANULAR FILL, COMPACTED TO 95% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT, AS DETERMINED BY MODIFIED PROCTOR TEST, UNLESS OTHERWISE NOTED.

9. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL UNSUITABLE MATERIAL, SURPLUS MATERIAL AND DEBRIS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, TOWN, COUNTY, STATE AND FEDERAL LAWS AND APPLICABLE CODES.

10. ALL MUNICIPAL AGENCIES HAVING JURISDICTION DURING CONSTRUCTION SHALL BE NOTIFIED A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE OF ALL CONSTRUCTION, UNLESS OTHERWISE INDICATED AS A CONDITION OF MUNICIPAL APPROVAL OR PERMIT, CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND INSURING ALL NECESSARY MUNICIPAL INSPECTIONS, CONDITIONS OF APPROVAL, AND CERTIFICATIONS ARE PERFORMED AND OBTAINED IN ACCORDANCE TO THE APPLICABLE PERMITS AND MUNICIPAL REQUIREMENTS.

11. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS VESTIBULES, SLOPED PAVING, PORCHES, RAMPS, GARAGES, ROOF LEADERS, PRECISE BUILDING DIMENSIONS AND BUILDING UTILITY ENTRANCES,

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF EROSION CONTROL MEASURES PROTECTING NEW AND EXISTING IMPROVEMENTS AND ADJACENT PROPERTIES CONFORMING TO THE FEDERAL, STATE, COUNTY, AND LOCAL MUNICIPAL REQUIREMENTS. EROSION CONTROL IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AND IN PLACE PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY. MEASURES SHALL BE MAINTAINED AND MODIFIED AS NECESSARY THROUGHOUT THE IMPROVEMENT CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL ACCEPTANCE OF IMPROVEMENT CONSTRUCTION BY LOCAL MUNICIPALITY HAVING JURISDICTION.

13. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING PERMANENT TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, IN CONJUNCTION WITH THE LATEST EDITION OF ANY NEW YORK STATE SUPPLEMENTS TO SUCH. THE CONTRACTOR SHALL ADHERE TO ANY ADDITIONAL LOCAL REQUIREMENTS AND/OR CONDITIONS OF ANY MUNICIPAL PERMITS AND THE APPROVED CONTRACTOR DOCUMENTS. THE CONTRACTOR SHALL NOT AMEND EXISTING OR APPROVED TRAFFIC CONTROL DEVICES WITHOUT EXPRESSED WRITTEN APPROVAL OF ANY AGENCIES HAVING JURISDICTION OVER SUCH.

14. ALL AREAS THAT HAVE BEEN DISTURBED SHALL BE SEEDED UNLESS OTHERWISE NOTED.

15. ALL DEBRIS SHALL BE REMOVED IN ACCORDANCE WITH STATE, AND LOCAL REQUIREMENTS.

16. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

17. ANY UTILITIES REQUIRED TO BE RELOCATED DUE TO INSTALLATION OF THE REQUIRED IMPROVEMENTS SHALL BE RELOCATED AT THE EXPENSE OF THE APPLICANT/DEVELOPER/OWNER.

18. ANY RETAINING WALL 4' OR MORE IN HEIGHT SHALL REQUIRE APPROVAL BY THE TOWN ENGINEER AND A PERMIT ISSUED BY THE BUILDING DEPARTMENT. IT IS THE APPLICANTS RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS FOR ALL SUCH RETAINING WALL PRIOR TO CONSTRUCTION.

19. ALL TRAFFIC ROAD MARKINGS, ROAD SIGNS, AND LIGHT SIGNALS THAT MAY HAVE BEEN MOVED OR DAMAGED IN THE PROCESS OF CONSTRUCTION SHALL BE RESTORED AT THE APPLICANT'S EXPENSE TO AT LEAST THE SAME QUALITY AND CHARACTERISTICS THAT EXISTED BEFORE CONSTRUCTION BEGAN. THE APPLICANT SHALL BE FURTHER RESPONSIBLE TO ENSURE THAT, IN THE ROADWAYS ADJACENT TO THE CONSTRUCTION SITE, THESE MARKINGS, SIGNS AND SIGNALS ARE MAINTAINED AND THAT THE PROTECTION OF TRAFFIC IS MAINTAINED DURING THE ENTIRE PERIOD OF CONSTRUCTION. IF REPLACEMENT OR UPGRADE IS REQUIRED, SAME MUST BE APPROVED BY THE TOWN OF BROOKHAVEN DPW.

20. CONTRACTOR TO PROVIDE 3'-6" MINIMUM HIGH RAILING OR FENCE ALONG TOP OF RETAINING WALLS WITH A HEIGHT OF 30" AND GREATER ABOVE FINISHED GRADE. RAILINGS SHALL COMPLY WITH SECTION 1013 GUARDS OF THE BCNYS.

21. NO UNDERMINING OF THE PUBLIC R.O.W. WILL BE PERMITTED. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLATION OF ANY SHEETING AND SHORING REQUIRED TO PREVENT UNDERMINING.

22. THE INSTALLATION OF ALL HIGHWAY IMPROVEMENTS INCLUDING EXCAVATION, BACKFILL AND COMPACTION OF THE TRENCHES FOR SANITARY SEWERS AND UTILITIES SHALL BE SUPERVISED BY THE DEVELOPER'S PROFESSIONAL ENGINEER (LICENSED BY THE STATE OF NEW YORK OR A L.S. WITH A 7208N CERTIFICATE) WHO SHALL SUBMIT A SIGNED AND SEALED LETTER TO THE TOWN OF BROOKHAVEN, STATING THAT THE IMPROVEMENTS HAVE BEEN INSTALLED TO THE APPLICABLE NEW YORK STATE, SUFFOLK COUNTY OR THE TOWN OF BROOKHAVEN SPECIFICATIONS. THE CERTIFICATION SHALL APPLY TO THE PROPOSED ROAD OPENINGS ON EXISTING STREETS. SAID WORK ON EXISTING STREETS SHALL INCLUDE TRAFFIC MAINTENANCE AND THE PLACEMENT OF TEMPORARY AND FINAL PAVEMENT.

23. PROPOSED CABLE AND TELEPHONE SERVICE LOCATIONS SUBJECT TO CABLE AND TELEPHONE COMPANY APPROVAL. ALL WORK SHALL CONFORM, AS A MINIMUM, TO THE REQUIREMENTS OF THE CABLE AND TELEPHONE COMPANY.

24. INSTALLATION AND SERVICE COORDINATION OF ELECTRIC AND GAS SERVICE IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL WORK SHALL CONFORM, AS A MINIMUM, TO THE REQUIREMENTS OF PSEGLI AND NATIONAL GRID.

25. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR THE INSTALLATION OF SIGNS.

26. DURING CONSTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLATION OF TEMPORARY TRAFFIC CONTROL DEVICES FOR THE MAINTENANCE AND PROTECTION OF VEHICULAR AND PEDESTRIAN TRAFFIC IN THE VICINITY OF THE LIMITS OF CONSTRUCTION. THE TRAFFIC CONTROL DEVICES SHALL CONFORM AS A MINIMUM TO THE N.Y.S. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND TO THE REQUIREMENTS AND/OR CONDITIONS OF ANY MUNICIPAL PERMITS OR APPROVALS. MAINTENANCE AND PROTECTION OF TRAFFIC IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

27. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AND IN PLACE PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY. MEASURES SHALL BE MAINTAINED AND MODIFIED AS NECESSARY THROUGH OUT THE IMPROVEMENT CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL ACCEPTANCE OF IMPROVEMENT CONSTRUCTION BY LOCAL MUNICIPALITY HAVING JURISDICTION.

28. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING HANDICAP ACCESS RELATED IMPROVEMENTS IN ACCORDANCE WITH THE LATEST APPLICABLE FEDERAL, STATE AND LOCAL HANDICAP ACCESSIBILITY REGULATIONS, REQUIREMENTS AND LAWS INCLUDING, BUT NOT LIMITED TO: BUILDING ACCESS, HANDICAP ACCESSIBLE ROUTE, LANDINGS, PARKING, RAILINGS AND SIGNAGE.

29. NOTWITHSTANDING ANYTHING HEREON TO THE CONTRARY, CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION OF ALL ACCESSIBLE ROUTES TO ALL REQUIRED ACCESSIBLE BUILDING ENTRANCES AND COMMON AREAS (INCLUDING TRASH DISPOSAL AND MAIL PICK-UP) STRICTLY IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, INCLUDING,WITHOUT LIMITATION, THE FAIR HOUSING ACT, AMERICANS WITH DISABILITIES ACT ("ADA"), NEW YORK STATE BUILDING CODE, TOWN AND COUNTY STANDARDS, AND REFERENCE STANDARDS CONTAINED THEREIN. ACCESSIBLE ROUTES SHALL COMPLY WITH THE ACCESSIBILITY DETAILS AND NOTES CONTAINED HEREIN.

30. DUMPSTER AND RECYCLING STATIONS MUST COMPLY WITH HANDICAP ACCESSIBILITY REGULATIONS. REFER TO ARCHITECTURAL DRAWINGS BY OTHERS FOR DETAILS.

31. ALL STREET/SITE LIGHTING ON SITE WILL BE OWNED AND MAINTAINED, INCLUDING ELECTRIC SERVICE COST, BY THE OWNER.

32. SNOW PLOWED ON THE PROPERTY MAY NOT BE STORED OR DEPOSITED IN TOWN RIGHT-OF-WAY AND MAY NOT BLOCK OR IMPEDE THE FLOW OF VEHICULAR OR PEDESTRIAN MOVEMENTS.

33. REFUSE FACILITIES SHALL BE MAINTAINED BY THE APPLICANT/OWNER SO AS NOT TO OFFER ANY NOXIOUS OR OFFENSIVE ODORS AND/OR FUMES. APPLICANT/OWNER SHALL MAINTAIN REFUSE ENCLOSURE GATES IN A CLOSED POSITION EXCEPT AT TIMES WHEN UNITS ARE BEING ACCESSED FOR LOADING OR UNLOADING OF DUMPSTER.

#	REVISION	DATE
3	REVISED AS PER CPBC COMMENTS	11-6-2023
2	ISSUED FOR CPBC SUBMISSION	8-8-2023
1	REVISE LANDSCAPE PLAN AS PER CLIENT COMMENTS	7-27-2023

OWNER:
-

APPLICANT:
-

STATE OF NEW YORK · CHRISTOPHER C. VOLPE · 097429 · LICENSED PROFESSIONAL ENGINEER

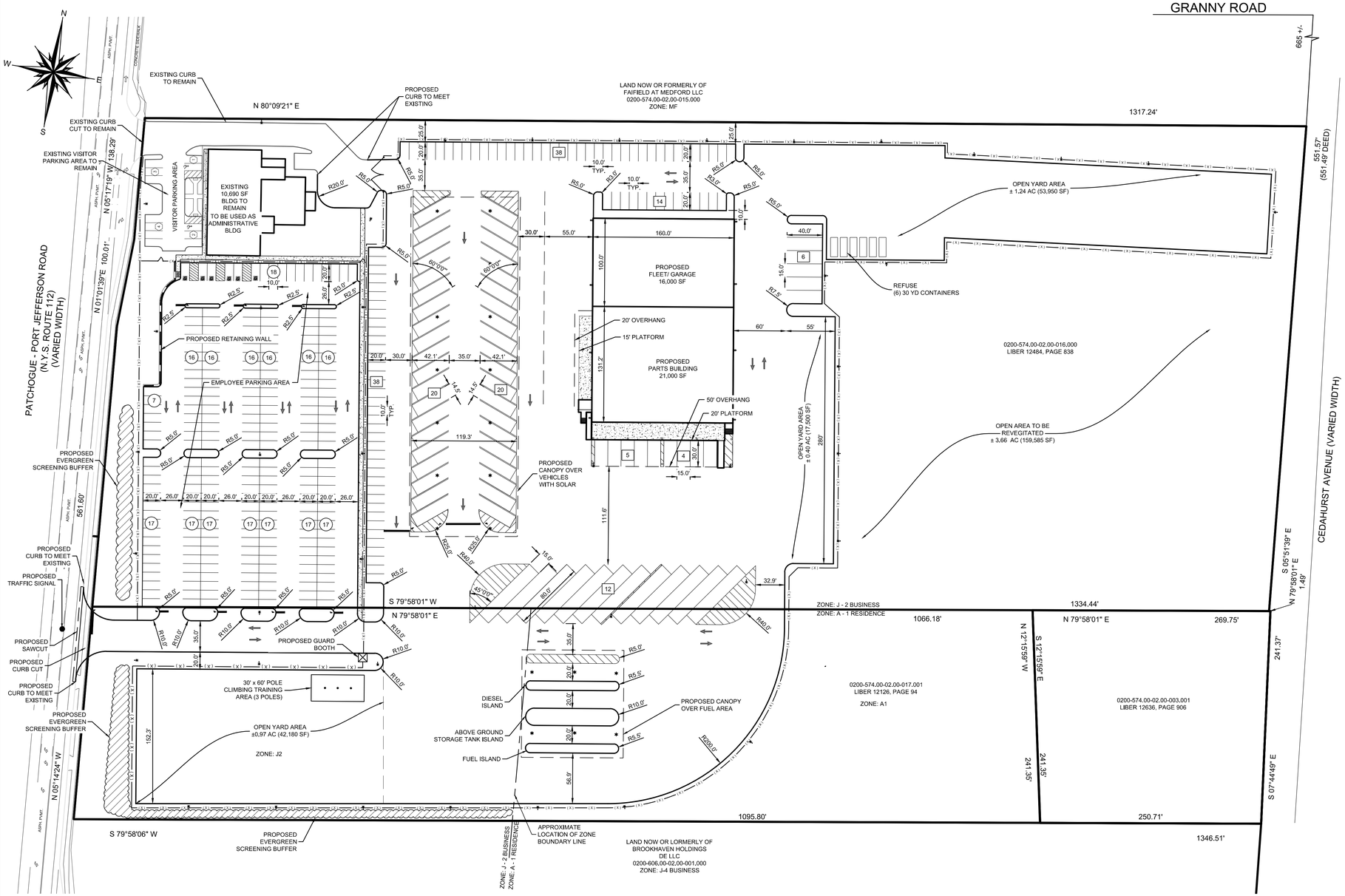
COVER SHEET

PROPOSED LIPA/PSEGLI OPERATION CENTER
SITUATED AT
MEDFORD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY, NEW YORK
S.C.T.M.; DISTRICT: 200, SECTION: 574, BLOCK : 02, LOT: 3.001, 16 & 17.1

NELSON+POPE
engineers • architects • surveyors
70 Maxess Road, Melville, NY 11747 • 631.427.5665 • nelsonpope.com

DRAWN BY:	KK	CADD:	08204-SP.DWG	SCALE:	NTS
CHECKED BY:	CCV	FILE NO.:	-		
DATE:	JULY 2023	PROJECT NO.:	08204		

C-100
SHEET NO.: 1 OF 11



SITE DATA

ADDRESS:	3351 NY-112, MEDFORD, NY 11763
SCTM:	200 - 574 - 02 - 3.001, 16 & 17.1
CURRENT USE:	AMUSEMENT PARK
PROPOSED USE:	LIPA/PSEGLI OPERATION CENTER
ZONING:	J2 (BUSINESS) / A1 (RESIDENTIAL)
SITE AREA:	LOT 3.001: 1.44 AC
	LOT 16: 16.83 AC
	LOT 17.1: 5.99 AC
BUILDING AREA:	47,690 SF
FIRE DISTRICT:	MEDFORD
SCHOOL DISTRICT:	LONGWOOD CSD
WATER DISTRICT:	SUFFOLK COUNTY WATER AUTHORITY

PARKING CALCULATION

PROVIDED PARKING:

STANDARD PARKING:	239 STALLS
10' X 20' FLEET PARKING:	90 STALLS
15' X 40' FLEET PARKING:	55 STALLS
15' X 80' FLEET PARKING:	12 STALLS
TOTAL PARKING PROVIDED:	396 STALLS

BUILDING LOT COVERAGE

EXISTING (ADMINISTRATIVE):	10,690 SF
PROPOSED FLEET/ GARAGE:	16,000 SF
PROPOSED PARTS BUILDING:	21,000 SF
TOTAL COVERAGE:	47,690 SF

LEGEND

- EXISTING PARKING QUANTITY
- PROPOSED FLEET PARKING QUANTITY
- PROPOSED STANDARD PARKING QUANTITY
- PROPOSED GUARD BOOTH
- PROPOSED FENCE
- PROPOSED SIGN
- PROPOSED SIDEWALK
- PROPOSED PAVEMENT MARKING
- PROPOSED PAVEMENT MARKING
- PROPOSED CURB
- PROPOSED CLEARING LIMIT
- PROPOSED EVERGREEN SCREENING BUFFER
- PROPOSED RETAINING WALL

EXISTING LOT COVERAGES

BUILDING	44,745 SF
IMPERVIOUS	212,280 SF
LANDSCAPE	585,374 SF
WOODS	214,349 SF
TOTAL	1,056,748 SF

PROPOSED LOT COVERAGES

PAVEMENT	546,106 SF
BUILDING	47,690 SF
MIXED NATIVE SPECIES AND LAWN	20,503 SF
NATURAL WOODS	192,774 SF
MEADOW RE-VEGETATION	129,445 SF
WOODLAND RE-VEGETATION	120,230 SF
TOTAL	1,056,748 SF

LIMITS OF PROPOSED SITE DEVELOPMENT CALCULATION		
Total Area Lot J2	854,308	SF
Allowable Development of J2 65%	555,300	SF
Total Area Lot A1	202,440	SF
Allowable Development of A1 53%	107,293	SF
Limit of Site Development	662,593	SF
Proposed Site Development Area	619,175	SF

BOUNDARY FROM SURVEY PREPARED BY NELSON AND POPE
DATED SEPTEMBER 02, 2022.

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GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)

#	REVISION	DATE
3	REVISED AS PER CPBC COMMENTS	11-6-2023
2	ISSUED FOR CPBC SUBMISSION	8-8-2023
1	REVISE LANDSCAPE PLAN AS PER CLIENT COMMENTS	7-27-2023

OWNER:
-

APPLICANT:
-

OVERALL ALIGNMENT PLAN

PROPOSED LIPA/PSEGLI OPERATION CENTER
SITUATED AT
MEDFORD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY, NEW YORK
S.C.T.M.; DISTRICT: 200, SECTION: 574, BLOCK : 02, LOT: 3.001, 16 & 17.1

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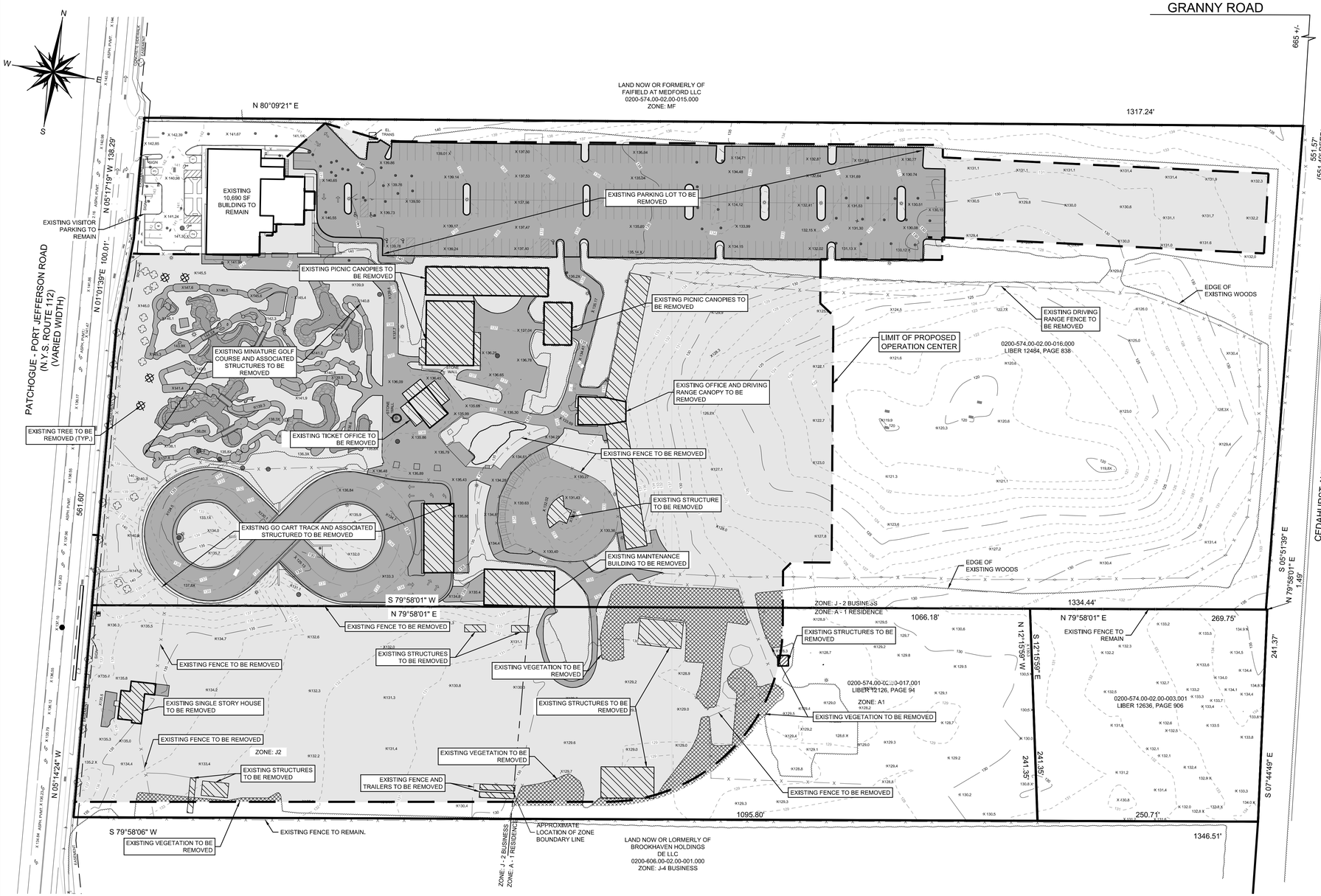
DRAWN BY:	KK	CADD:	08204-SP.DWG	SCALE:	1" = 60'
CHECKED BY:	CCV	FILE NO.:	-		
DATE:	JULY 2023	PROJECT NO.:	08204	SHEET NO.:	C-101 2 OF 11



DEMOLITION NOTES:

1. PRIOR TO THE START OF EXCAVATION THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, SIZE AND DIMENSION OF ALL UNDERGROUND UTILITIES. NELSON AND POPE ENGINEERS ASSUMES NO RESPONSIBILITY FOR THE LOCATION OF BURIED UTILITIES SHOWN OR LACK THEREOF. THE CONTRACTOR SHALL CONTACT THE UTILITY MARK OUT ONE CALL SERVICE BY CALLING 1-800-272 4480 PRIOR TO THE START OF CONSTRUCTION.
2. ALL DEBRIS, CONCRETE CHUNKS, TREE STUMPS AND OTHER UNSUITABLE MATERIAL RESULTING FROM THE SITE GRADING AND EXISTING STRUCTURAL DEMOLITION SHALL BE DISPOSED OF AT AND APPROVED DISPOSAL LOCATION. NO UNSUITABLE MATERIALS SHALL BE PERMITTED TO BE BURIED ON SITE.
3. EXISTING UTILITIES, PAVEMENT, CURB, LANDSCAPING, BUILDING, CONCRETE SIDEWALK, LIGHTING FEATURES, ETC. SHALL BE REMOVED, CAPPED, RECONSTRUCTED AND/OR RELOCATED AS NECESSARY IN THE AREAS OF CONSTRUCTION.
4. SITE LIGHTING, UNDERGROUND CONDUIT, WATER, GAS, TELEPHONE, SANITARY SEWER LATERALS AND STORM DRAINAGE ALL SHOWN IN APPROXIMATE LOCATION. THE CONTRACTOR SHALL VERIFY AND PROTECT ALL UTILITIES IN AREAS OF EXCAVATION.
5. THE CONTRACTOR SHALL NOT REMOVE FROM SERVICE ANY UTILITY WITHOUT VERIFICATION THAT THE SERVICE HAS BEEN REROUTED, CAPPED OR TAKEN OUT OF SERVICE. ROOF LEADERS, SANITARY SEWERS, GAS, ELECTRIC, TELEPHONE, WATER, SITE LIGHTING AND ANY MISCELLANEOUS UTILITY SHALL REMAIN IN SERVICE AT ALL TIMES DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL BACKFILL ALL DEMOLITION TO SUBGRADE USING SUITABLE MATERIAL AND SHALL PLACE AND COMPACT BACKFILL IN LIFTS TO ASSURE 95% COMPACTION.
7. CONTRACTOR TO PROVIDE EXTERMINATION OF PROPERTY PRIOR TO THE DEMOLITION OF THE EXISTING STRUCTURES TO PREVENT THE MIGRATION OF VERMIN.
8. CONTRACTOR SHALL INSTALL APPROPRIATE SEDIMENT AND EROSION CONTROL AND SITE SECURITY MEASURES PRIOR TO COMMENCEMENT OF DEMOLITION. REFER TO SEPARATE SEDIMENT AND EROSION CONTROL PLANS AND DETAILS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL UTILITIES AND PERMITS. CONTRACTOR SHALL CUT AND CAP ALL UTILITIES AS DIRECTED BY THE INDIVIDUAL UTILITY COMPANY.
10. CONTRACTOR TO BE RESPONSIBLE FOR COORDINATION WITH PSEGLI FOR THE REMOVAL AND RELOCATION OF THE UNDERGROUND ELECTRIC.
11. ALL EXISTING SIGNS WITHIN THE AREA OF WORK TO BE REMOVED.

EXISTING LOT COVERAGES

BUILDING	44,745 SF
IMPERVIOUS	212,280 SF
LANDSCAPE	585,374 SF
WOODS	214,349 SF
TOTAL	1,056,748 SF

LEGEND

- EXISTING PARKING QUANTITY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING DRIVING RANGE FENCE
- EXISTING CHAIN LINK FENCE
- EXISTING LIGHT POLE TO BE REMOVED
- EXISTING INLET
- EXISTING MANHOLE (MH)
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN
- EXISTING BUILDING TO BE REMOVED
- EXISTING CONCRETE / PAVEMENT TO BE REMOVED
- EXISTING VEGETATION TO BE REMOVED

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)

BOUNDARY FROM SURVEY PREPARED BY NELSON AND POPE DATED SEPTEMBER 02, 2022.

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW ARTICLE 145, PROFESSIONAL ENGINEERING AND LAND SURVEYING, SECTION 7209 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND SPECIFIC DESCRIPTION OF THE ALTERATION.

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#	REVISION	DATE
3	REVISED AS PER CPBC COMMENTS	11-6-2023
2	ISSUED FOR CPBC SUBMISSION	8-8-2023
1	REVISE LANDSCAPE PLAN AS PER CLIENT COMMENTS	7-27-2023

OWNER:
-

APPLICANT:
-

EXISTING CONDITIONS & DEMOLITION PLAN

PROPOSED LIPA/PSEGLI OPERATION CENTER
SITUATED AT
MEDFORD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY, NEW YORK
S.C.T.M.; DISTRICT: 200, SECTION: 574, BLOCK : 02, LOT: 3.001, 16 & 17.1

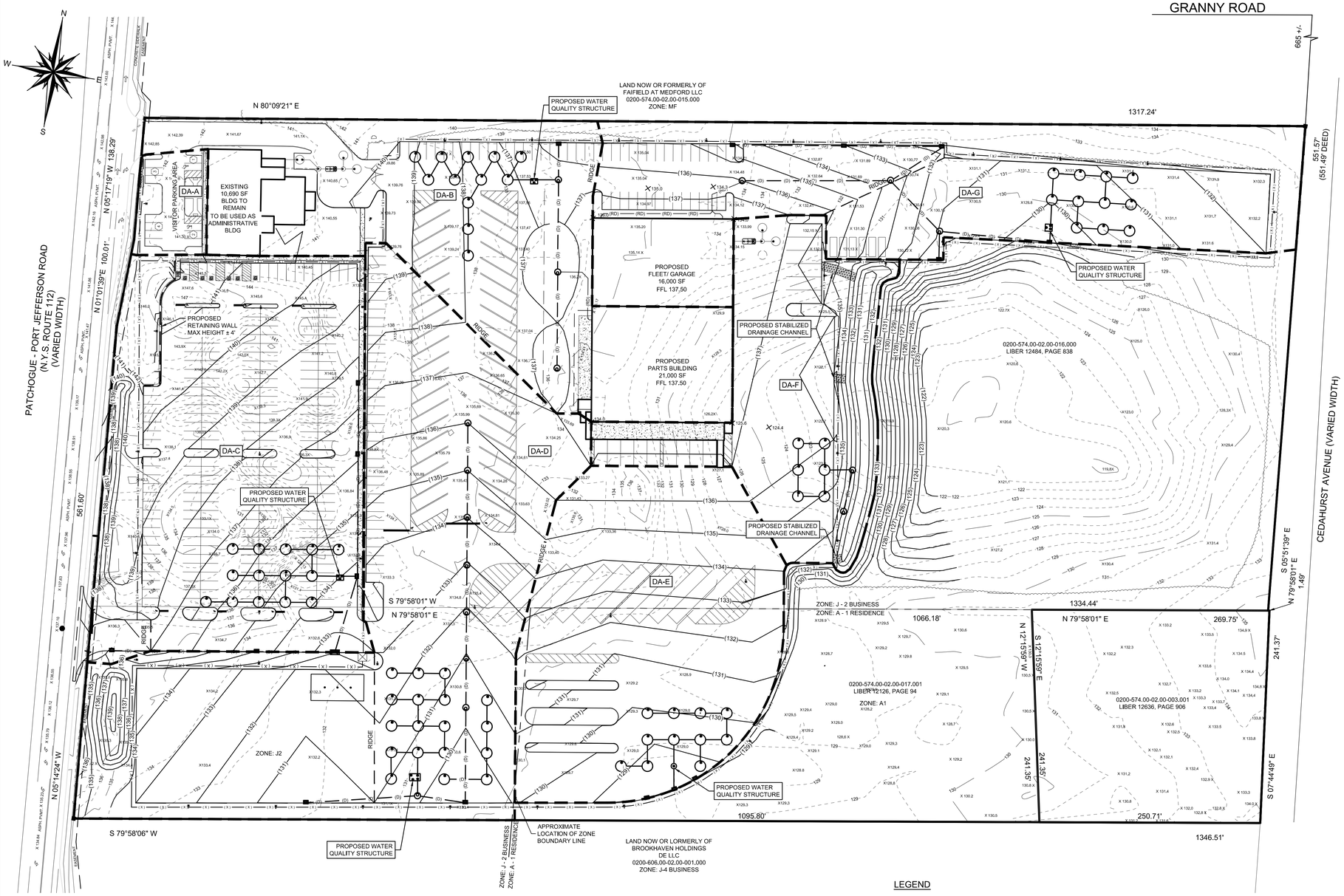
NELSON+POPE
engineers • architects • surveyors
70 Maxess Road, Melville, NY 11747 • 631.427.5665 • nelsonpope.com

STATE OF NEW YORK — CHRISTOPHER C. VOLK — 097429 — LICENSED PROFESSIONAL ENGINEER

DRAWN BY:	KK	CADD:	08204-SP.DWG	SCALE:	1" = 60'
CHECKED BY:	CCV	FILE NO.:	-		
DATE:	JULY 2023	PROJECT NO.:	08204		

C-102

SHEET NO.: 3 OF 11



DRAINAGE CALCULATIONS:

DA-A
TOTAL : 9,292 SF
IMPERVIOUS : 6,030 SF x 1.0 x 2/12 = 1,005 CF
PERVIOUS : 3,262 SF x 0.3 x 2/12 = 163 CF
REQUIRED STORAGE VOLUME = 1,168 CF
PROVIDED:
EXISTING DRAINAGE TO REMAIN

DA-B
TOTAL 114,699 SF
ROOF: 31,690 SF x 1.0 x 2/12 = 5,282 CF
IMPERVIOUS: 70,156 SF x 1.0 x 2/12 = 11,693 CF
PERVIOUS: 12,853 SF x 0.3 x 2/12 = 643 CF
REQUIRED STORAGE VOLUME = 17,618 CF
PROVIDED:
(12) 12'Ø LP @ 15' E.D. @ 100.9 CF/VF = 18,162 CF > 17,618 CF

DA-C
TOTAL 132,572 SF
IMPERVIOUS: 107,090 SF X 1.0 X 2/12 = 17,848 CF
PERVIOUS: 25,482 SF X 0.3 X 2/12 = 1,274 CF
REQUIRED STORAGE VOLUME = 19,122 CF
PROVIDED:
(13) 12'Ø LP @ 15' E.D. @ 100.9 CF/VF = 19,676 CF > 19,122 CF

DA-D
TOTAL 174,418 SF
IMPERVIOUS: 147,336 SF X 1.0 X 2/12 = 24,556 CF
PERVIOUS: 27,082 SF X 0.3 X 2/12 = 1,354 CF
REQUIRED STORAGE VOLUME = 25,910 CF
PROVIDED:
(18) 12'Ø LP @ 15' E.D. @ 100.9 CF/VF = 27,243 CF > 25,910 CF

DA-E
TOTAL 98,014 SF
IMPERVIOUS: 98,014 SF X 1.0 X 2/12 = 16,336 CF
REQUIRED STORAGE VOLUME = 16,336 CF
PROVIDED:
(11) 12'Ø LP @ 15' E.D. @ 100.9 CF/VF = 16,649 CF > 16,336 CF

DA-F
TOTAL 65,924 SF
IMPERVIOUS: 47,238 SF X 1.0 X 2/12 = 7,873 CF
PERVIOUS: 18,686 SF X 0.3 X 2/12 = 934 CF
REQUIRED STORAGE VOLUME = 8,807 CF
PROVIDED:
(6) 12'Ø LP @ 15' E.D. @ 100.9 CF/VF = 9,081 CF > 8,807 CF

DA-G
TOTAL 120,484 SF
ROOF: 16,000 SF X 1.0 X 2/12 = 2,667 CF
IMPERVIOUS: 70,242 SF X 1.0 X 2/12 = 11,707 CF
PERVIOUS: 34,242 SF X 0.3 X 2/12 = 1,712 CF
REQUIRED STORAGE VOLUME = 16,086 CF
PROVIDED:
(11) 12'Ø LP @ 15' E.D. @ 100.9 CF/VF = 16,649 CF > 16,086 CF

NOTE: DEPTH TO GROUND WATER +/- 81 FT BELOW EXISTING GRADE

WATER QUALITY CALCULATIONS

WQv STORMWATER TREATMENT (DA-F)
REQUIRED

WQv = (P) x (Rv) x (A) / 12

P = 1.5
I = % IMPERVIOUS COVER = 71.65
Rv = 0.05 + (0.009 *I) = 0.695
A = 1.513 AC (65,924 SF)

WQv = 0.1315 AC-FT = 5,728 CF
PROVIDED = 7,000 SF (AVERAGE) SWALE @ 2FT DEPTH
14,000 CF> 5,728 CF REQUIRED

DRAINAGE NOTES

1. ALL BUILDING DRAINAGE AND ROOF LEADER MANIFOLDS SHALL BE PVC SDR-35 OR SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (CPP), SLOPED @ 2.0% MIN AT A DIAMETER OF 12" MINIMUM AND PIPED TO THE STORM WATER SYSTEM AS SHOWN ON THE APPROVED PLANS
2. TRANSITION BETWEEN DIFFERING PIPE TYPES SHALL BE WATERTIGHT AND IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS UNLESS SHOW OR SPECIFIED OTHERWISE
3. CONTRACTOR SHALL COORDINATE BUILDING DRAINAGE AND LEADER LOCATIONS WITH THE ARCHITECTURAL/MEP PLANS
4. ALL DRYWELL/LEACHING POOL-TO-DRYWELL/LEACHING POOL INTERCONNECTING PIPES SHALL BE 15" SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (CPP) OR REINFORCED CONCRETE PIPE (RCP) CLASS IV, SLOPED @ 1.0% MIN, UNLESS SHOWN OR SPECIFIED OTHERWISE.
5. CPP SHALL BE ADVANCED DRAINAGE SYSTEMS INC. (ADS N-12 SMOOTH INTERIOR) OR HANCOR, INC. (H1-Q SMOOTH INTERIOR) OR APPROVED EQUAL
6. ALL STORMWATER LEACHING/OPEN BOTTOM STRUCTURES SHALL MAINTAIN A MINIMUM OF 18' SEPARATION BETWEEN ADJACENT POOLS
7. THE SEPARATION DISTANCES BETWEEN DRAINAGE, WATER AND SANITARY FACILITIES SHALL BE MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTIONAL ENTITY
8. EXISTING DRAINAGE STRUCTURES PROPOSED FOR REUSE SHALL BE CLEANED OF SILT AND DEBRIS, SCARIFIED AND INSPECTED FOR STRUCTURAL INTEGRITY BY THE ENGINEER OR HIS REPRESENTATIVE BEFORE BEING APPROVED FOR REUSE
9. A MINIMUM OF 1.5' VERTICAL CROSSING CLEARANCE SHALL BE MAINTAINED AT CROSSING BETWEEN DRAINAGE AND UTILITY, WATER AND SANITARY IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTIONAL ENTITIES
10. A MINIMUM OF 1.5' VERTICAL CROSSING CLEARANCE SHALL BE MAINTAINED AT CROSSING BETWEEN WATER AND UTILITY, DRAINAGE AND SANITARY IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTIONAL ENTITIES
11. A MINIMUM OF 1.5' VERTICAL CROSSING CLEARANCE SHALL BE MAINTAINED AT CROSSING BETWEEN SANITARY AND UTILITY, WATER AND DRAINAGE IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTIONAL ENTITIES
12. VERIFY IN FIELD ALL EXISTING PIPE INVERTS AND NOTIFY ENGINEER OF ANY CONFLICTING INFORMATION PRIOR TO INSTALLING NEW DRAINAGE OR BACKFILLING.
13. ALL DRAINAGE PIPING SHALL BE PROVIDED WITH A MINIMUM 2.0' COVER UNLESS APPROVED OTHERWISE BY THE DESIGN ENGINEER AND THE JURISDICTIONAL ENTITY

LEGEND

- PROPOSED LP W/ SOLID COVER
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED DOUBLE CATCH BASIN
- (D) PROPOSED DRAINAGE PIPE
- DRAINAGE BOUNDARY
- DA-D PROPOSED DRAINAGE AREA
- (136) PROPOSED CONTOUR
- X 132.5 EXISTING SPOT ELEVATION
- 201 EXISTING MAJOR CONTOUR
- 200 EXISTING MINOR CONTOUR
- (S) PROPOSED SANITARY PIPE
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY LEACHING POOL
- PROPOSED SANITARY EXPANSION POOL
- PROPOSED SANITARY A.I. SYSTEM
- RIDGE PROPOSED RIDGE
- (RD) PROPOSED ROOF DRAINAGE
- PROPOSED GUARD BOOTH
- x PROPOSED FENCE
- PROPOSED SIGN
- PROPOSED SIDEWALK
- PROPOSED PAVEMENT MARKING
- PROPOSED CURB
- PROPOSED RETAINING WALL

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)

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BOUNDARY FROM SURVEY PREPARED BY NELSON AND POPE DATED SEPTEMBER 02, 2022.

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STATE OF NEW YORK
CHRISTOPHER C. VAN
097429
LICENSED PROFESSIONAL ENGINEER

OVERALL GRADING AND DRAINAGE PLAN

PROPOSED LIPA/PSEGLI OPERATION CENTER
SITUATED AT
MEDFORD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY, NEW YORK
S.C.T.M.; DISTRICT: 200, SECTION: 574, BLOCK : 02, LOT: 3.001, 16 & 17.1

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CHECKED BY:	CCV	FILE NO.:	-		
DATE:	JULY 2023	PROJECT NO.:	08204	SHEET NO.:	C-103

CONTECH ENGINEERED SOLUTIONS

Date: 6/22/2023
Project: PSEG - Medford
Location: Medford, NY
Prepared For: Nelson & Pope

Purpose: To calculate the water quality flow rate (Qwq) over a given site area. In this situation the WQv to be analyzed is the runoff produced by the first 1.5 inch(es) of rainfall, per Fig 4.1 of the New York State Stormwater Management Design Manual

Reference: United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual, New York State Stormwater Management Design Manual - 2015

Formulas:

$$WQv = \frac{(P)(R_v)(A)}{12}$$

$R_v = (0.05+0.009(I)$

$CN = 1000/[10+5P+10Qa-10(Qa^2+1.25QaP)^{1/2}]$

$Qwq = (q_u)*(A)*(Qa)$

Structure: DA-A

P	1.50	in.
A	0.210	ac
I	66.67	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.65	
90% WQv	0.017	ac-ft
90% WQv	744.88	ft^3
Qa	0.977	in.
CN	94.54	
I_a	0.116	
I_a/P	0.077	
qu	650	(csm/in)
A	0.00033	$miles^2$
Qwq	0.21	cfs

Structure: DA-B-Ex.

P	1.50	in.
A	1.780	ac
I	100.00	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.95	
90% WQv	0.211	ac-ft
90% WQv	9208.58	ft^3
Qa	1.425	in.
CN	99.36	
I_a	0.041	
I_a/P	0.027	
qu	650	(csm/in)
A	0.00278	$miles^2$
Qwq	2.58	cfs

Structure: DA-B-New

P	1.50	in.
A	0.560	ac
I	100.00	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.95	
90% WQv	0.067	ac-ft
90% WQv	2896.74	ft^3
Qa	1.425	in.
CN	99.36	
I_a	0.041	
I_a/P	0.027	
qu	650	(csm/in)
A	0.00088	$miles^2$
Qwq	0.81	cfs

DA-B
REQUIRED:

25% TREATMENT FOR EXISTING IMPERVIOUS: 2.58 CFS X 0.25 = 0.65 CFS
100% TREATMENT FOR NEW IMPERVIOUS: 0.81 CFS X 1.0 = 0.81 CFS
TOTAL MAXIMUM REQUIRED WATER QUALITY FLOW RATE: = 1.46 CFS

PROVIDED:
JELLYFISH FILTER STORM WATER TREATMENT JFPD0806-8-2
(MAXIMUM TREATMENT CAPACITY OF 1.47 CFS)

DA-C
REQUIRED:

25% TREATMENT FOR EXISTING IMPERVIOUS: 2.26 CFS X 0.25 = 0.57 CFS
100% TREATMENT FOR NEW IMPERVIOUS: 1.36 CFS X 1.0 = 1.36 CFS
TOTAL MAXIMUM REQUIRED WATER QUALITY FLOW RATE: = 1.93 CFS

PROVIDED:
JELLYFISH FILTER STORM WATER TREATMENT JFPD0806-10-2
(MAXIMUM TREATMENT CAPACITY OF 1.96 CFS)

DA-D
REQUIRED:

25% TREATMENT FOR EXISTING IMPERVIOUS: 1.80 CFS X 0.25 = 0.45 CFS
100% TREATMENT FOR NEW IMPERVIOUS: 3.11 CFS X 1.0 = 3.11 CFS
TOTAL MAXIMUM REQUIRED WATER QUALITY FLOW RATE: = 3.56 CFS

PROVIDED:
JELLYFISH FILTER STORM WATER TREATMENT JFPD0812-18-4
(MAXIMUM TREATMENT CAPACITY OF 3.68 CFS)

DA-E
REQUIRED:

TOTAL MAXIMUM REQUIRED WATER QUALITY FLOW RATE: = 2.93 CFS
(100% TREATMENT FOR NEW IMPERVIOUS)

PROVIDED:
CASCADE SEPARATOR CS-6

DA-G
REQUIRED:

25% TREATMENT FOR EXISTING IMPERVIOUS: 1.45 CFS X 0.25 = 0.36 CFS
100% TREATMENT FOR NEW IMPERVIOUS: 1.40 CFS X 1.0 = 1.40 CFS
TOTAL MAXIMUM REQUIRED WATER QUALITY FLOW RATE: = 1.76 CFS

PROVIDED:
JELLYFISH FILTER STORM WATER TREATMENT JFPD0806-9-2
(MAXIMUM TREATMENT CAPACITY OF 1.96 CFS)

NOTE:
WATER QUALITY CALCULATIONS PREPARED BY CONTECH ENGINEERED SOLUTIONS LLC

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Reference: United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual, New York State Stormwater Management Design Manual - 2015

Formulas:

$$WQv = \frac{(P)(R_v)(A)}{12}$$

$R_v = (0.05+0.009(I)$

$CN = 1000/[10+5P+10Qa-10(Qa^2+1.25QaP)^{1/2}]$

$Qwq = (q_u)*(A)*(Qa)$

Structure: DA-C-Ex.

P	1.50	in.
A	1.560	ac
I	100.00	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.95	
90% WQv	0.185	ac-ft
90% WQv	8071.67	ft^3
Qa	1.425	in.
CN	99.36	
I_a	0.041	
I_a/P	0.027	
qu	650	(csm/in)
A	0.00244	$miles^2$
Qwq	2.26	cfs

Structure: DA-C-New

P	1.50	in.
A	0.940	ac
I	100.00	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.950	
90% WQv	0.112	ac-ft
90% WQv	4861.30	ft^3
Qa	1.425	in.
CN	99.35	
I_a	0.041	
I_a/P	0.027	
qu	650	(csm/in)
A	0.00147	$miles^2$
Qwq	1.36	cfs

Structure: DA-D-Ex.

P	1.50	in.
A	1.240	ac
I	100.00	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.95	
90% WQv	0.147	ac-ft
90% WQv	6416.39	ft^3
Qa	1.425	in.
CN	99.36	
I_a	0.041	
I_a/P	0.027	
qu	650	(csm/in)
A	0.00194	$miles^2$
Qwq	1.80	cfs

CONTECH ENGINEERED SOLUTIONS

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Location: Medford, NY
Prepared For: Nelson & Pope

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Formulas:

$$WQv = \frac{(P)(R_v)(A)}{12}$$

$R_v = (0.05+0.009(I)$

$CN = 1000/[10+5P+10Qa-10(Qa^2+1.25QaP)^{1/2}]$

$Qwq = (q_u)*(A)*(Qa)$

Structure: DA-G-Ex.

P	1.50	in.
A	1.000	ac
I	100.00	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.95	
90% WQv	0.119	ac-ft
90% WQv	5174.93	ft^3
Qa	1.426	in.
CN	99.36	
I_a	0.041	
I_a/P	0.027	
qu	650	(csm/in)
A	0.00156	$miles^2$
Qwq	1.45	cfs

Structure: DA-G-New

P	1.50	in.
A	0.970	ac
I	100.00	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.95	
90% WQv	0.115	ac-ft
90% WQv	5018.11	ft^3
Qa	1.425	in.
CN	99.36	
I_a	0.041	
I_a/P	0.027	
qu	650	(csm/in)
A	0.00152	$miles^2$
Qwq	1.40	cfs

CONTECH ENGINEERED SOLUTIONS

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Reference: United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual, New York State Stormwater Management Design Manual - 2015

Formulas:

$$WQv = \frac{(P)(R_v)(A)}{12}$$

$R_v = (0.05+0.009(I)$

$CN = 1000/[10+5P+10Qa-10(Qa^2+1.25QaP)^{1/2}]$

$Qwq = (q_u)*(A)*(Qa)$

Structure: DA-D-New

P	1.50	in.
A	2.150	ac
I	100.00	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.95	
90% WQv	0.255	ac-ft
90% WQv	11120.87	ft^3
Qa	1.425	in.
CN	99.36	
I_a	0.041	
I_a/P	0.027	
qu	650	(csm/in)
A	0.00336	$miles^2$
Qwq	3.11	cfs

Structure: DA-E

P	1.50	in.
A	2.770	ac
I	71.48	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.693	
90% WQv	0.240	ac-ft
90% WQv	10454.40	ft^3
Qa	1.040	in.
CN	95.34	
I_a	0.098	
I_a/P	0.065	
qu	650	(csm/in)
A	0.00433	$miles^2$
Qwq	2.93	cfs

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CHRISTOPHER C. VOLK
097429
LICENSED PROFESSIONAL ENGINEER

WATER QUALITY CALCULATIONS

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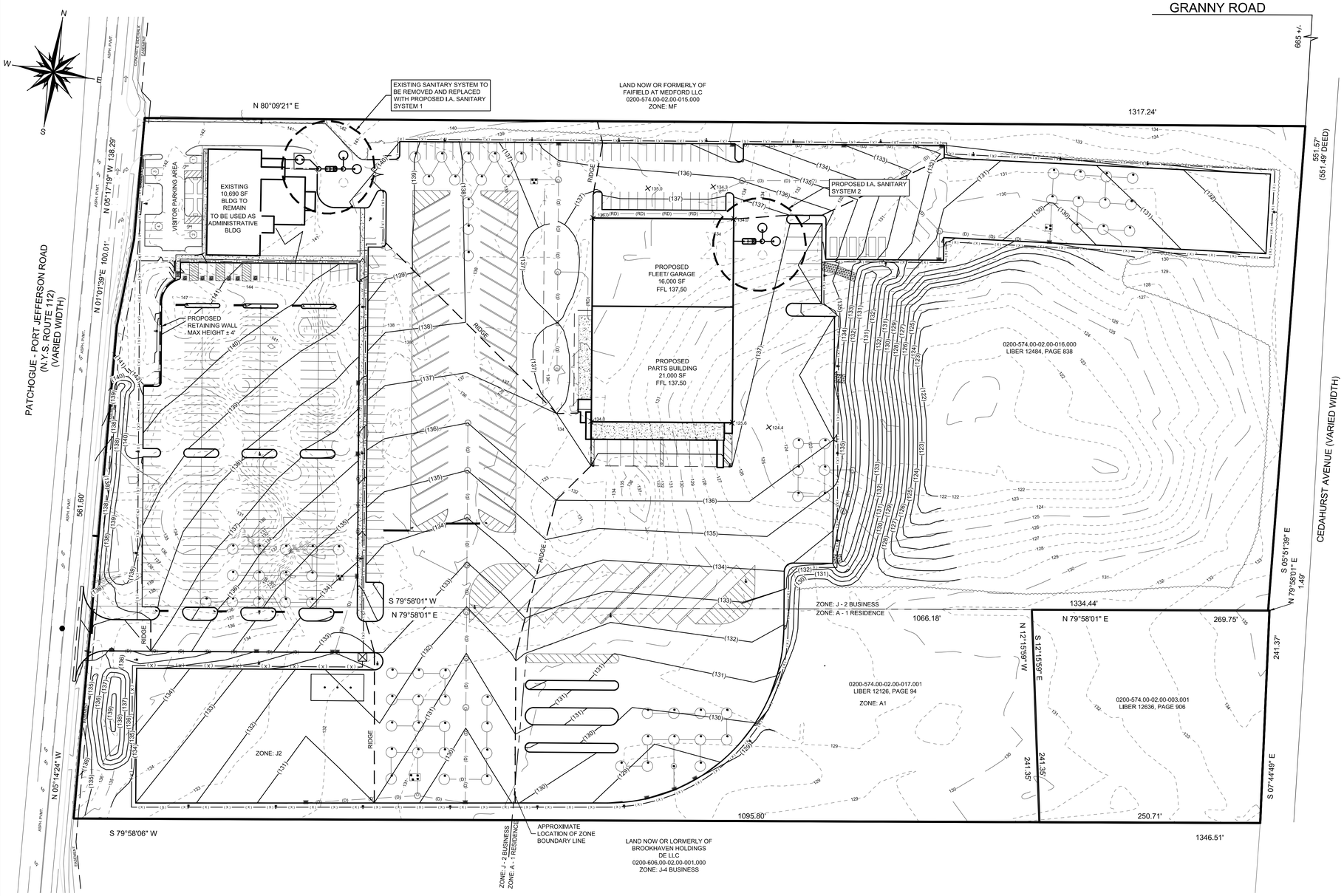
DATE:	JULY 2023	PROJECT NO.:	08204	SHEET NO.:	C-104



SANITARY CALCULATIONS

SITE DENSITY
GROUNDWATER MANAGEMENT ZONE III = 300 GPD/AC
TOTAL SITE AREA = 24.26 AC
EXISTING BUILDING G.F.A. = 18,630 SF
TOTAL PROPOSED BUILDING G.F.A. = 37,000 SF
ALLOWABLE SANITARY FLOW = 300 GPD/AC X 24.26 AC = 7,278 GPD

PROPOSED DENSITY

ADMINISTRATIVE BUILDING (EXISTING)

FLOOR	AREA/OCCUPANCY		FLOW RATE	TOTAL
OFFICE	18,630 SF	X	0.06 GPD/SF	= 1,118 GPD
DENSITY TOTAL:				= 1,118 GPD

PROPOSED GARAGE/FLEET AND PARTS BUILDING

FLOOR	AREA/OCCUPANCY		FLOW RATE	TOTAL
WAREHOUSE	37,000 SF	X	0.04 GPD/SF	= 1,480 GPD
DENSITY TOTAL:				= 1,480 GPD

PROPOSED TOTAL SITE DENSITY = 2,598 GPD
NO WELLS WITHIN 150 F.T.

PROPOSED SANITARY SYSTEM

ADMINISTRATIVE BUILDING (EXISTING)

I.A. SYSTEM 1
REQUIRED: 1,118 GPD

PROVIDED: = FUJICLEAN CEN14 = 1,350 GPD

LEACHING POOLS
REQUIRED: 1,118 GPD / 1.5 GPD/SF = 746 SF
746 SF / 31.4 SF / VF OF 10' Ø POOLS = 23.8 VF REQUIRED

PROVIDE: (2) 10' Ø X 12' E.D, L.P. = 24' V.F, TOTAL OR 753 SF OF LEACHING
EXPANSION: (1) 10' Ø X 12' E.D, L.P. = 12' V.F, TOTAL OR 377 SF OF LEACHING

PROPOSED GARAGE/ FLEET AND PARTS BUILDING

I.A. SYSTEM 2
REQUIRED: 1,480 GPD

PROVIDED: = FUJICLEAN CEN21 = 1,900 GPD

LEACHING POOLS
REQUIRED: 1,480 GPD / 1.5 GPD/SF = 987 SF
987 SF / 31.4 SF / VF OF 10' Ø POOLS = 31.4 VF REQUIRED

PROVIDE: (2) 10' Ø X 16' E.D, L.P. = 32' V.F, TOTAL OR 1,004 SF OF LEACHING
EXPANSION: (1) 10' Ø X 16' E.D, L.P. = 16' V.F, TOTAL OR 502 SF OF LEACHING

LEGEND

- PROPOSED LP W/ SOLID COVER
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED DOUBLE CATCH BASIN
- (D) PROPOSED DRAINAGE PIPE
- DRAINAGE BOUNDARY
- DA-D PROPOSED DRAINAGE AREA
- PROPOSED CONTOUR
- X 132.5 EXISTING SPOT ELEVATION
- 201 EXISTING MAJOR CONTOUR
- 200 EXISTING MINOR CONTOUR
- (S) PROPOSED SANITARY PIPE
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY LEACHING POOL
- PROPOSED SANITARY EXPANSION POOL
- PROPOSED SANITARY A.I. SYSTEM
- RIDGE PROPOSED RIDGE
- (RD) PROPOSED ROOF DRAINAGE
- PROPOSED GUARD BOOTH
- X PROPOSED FENCE
- PROPOSED SIGN
- PROPOSED SIDEWALK
- PROPOSED PAVEMENT MARKING
- PROPOSED CURB

UTILITY NOTES

1. LOCATION OF EXISTING COMMUNICATION/UTILITY FACILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO EXCAVATION.
2. PROPOSED COMMUNICATION/UTILITY SERVICE LOCATIONS, INCLUDING BUT NOT LIMITED TO THE CABLE, WATER, TELEPHONE, GAS AND ELECTRIC COMPANY, ARE SUBJECT TO APPLICABLE COMMUNICATION /UTILITY COMPANY'S REQUIREMENTS AND APPROVAL
3. UNLESS NOTED OTHERWISE, THE INSTALLATION OF THE COMMUNICATION/UTILITY COMPANY SERVICES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE COMMUNICATION/UTILITY COMPANY AND ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS AND REQUIREMENTS
4. ALL UTILITIES MUST BE INSTALLED AT A MINIMUM OF FIVE (5) FEET HORIZONTALLY FROM WATER AND SEWER LINES BUT NOT LESS THAN DIMENSIONAL REQUIREMENTS OF THE JURISDICTIONAL ENTITIES OR JURISDICTIONAL UTILITY
5. COMMUNICATION/UTILITY SERVICE LOCATIONS ARE SCHEMATIC AND BASED UPON INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. THE CONTRACTOR SHALL COORDINATE WITH COMMUNICATION/UTILITY COMPANY PRIOR TO COMMENCEMENT OF CONSTRUCTION

BOUNDARY FROM SURVEY PREPARED BY NELSON AND POPE
DATED SEPTEMBER 02, 2022.

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW ARTICLE 145, PROFESSIONAL ENGINEERING AND LAND SURVEYING, SECTION 7209 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND SPECIFIC DESCRIPTION OF THE ALTERATION.

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60 0 30 60 120 240
(IN FEET)

#	REVISION	DATE
3	REVISED AS PER CPBC COMMENTS	11-6-2023
2	ISSUED FOR CPBC SUBMISSION	8-8-2023
1	REVISE LANDSCAPE PLAN AS PER CLIENT COMMENTS	7-27-2023

OWNER:
-

APPLICANT:
-

OVERALL UTILITY PLAN

PROPOSED LIPA/PSEGLI OPERATION CENTER
SITUATED AT
MEDFORD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY, NEW YORK
S.C.T.M.; DISTRICT: 200, SECTION: 574, BLOCK : 02, LOT: 3.001, 16 & 17.1

NELSON+POPE
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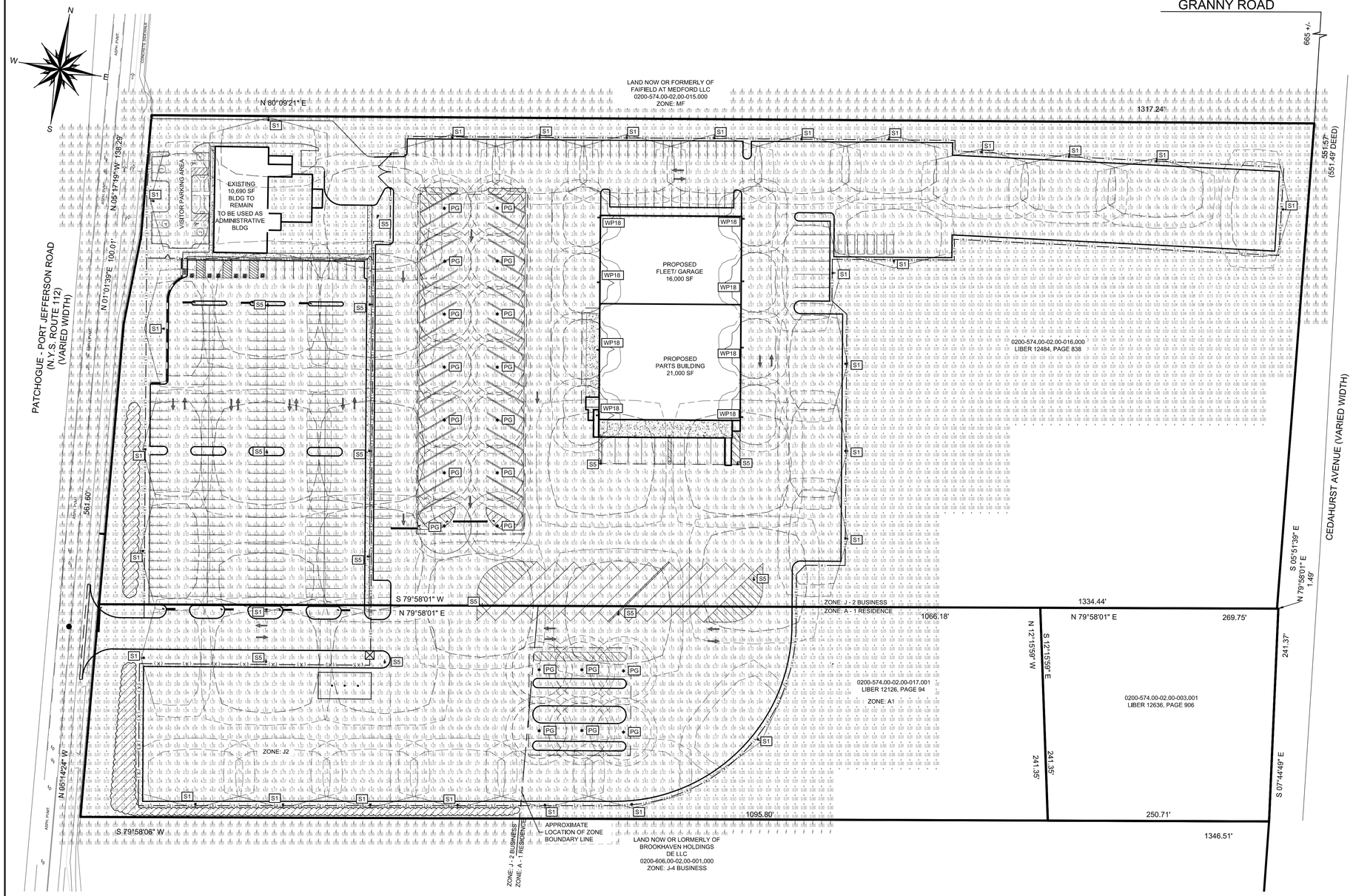
70 Maxess Road, Melville, NY 11747 • 631.427.5665 • nelsonpope.com

STATE OF NEW YORK — CHRISTOPHER C. CVETKOVICH — 097429 — LICENSED PROFESSIONAL ENGINEER

DRAWN BY:	KK	CADD:	08204-GR.DWG	SCALE:	1" = 60'
CHECKED BY:	CCV	FILE NO.:	-		
DATE:	JULY 2023	PROJECT NO.:	08204	SHEET NO.:	C-105 6 OF 11



(PSEG) LUMINAIRE SCHEDULE							
TYP	SYMBOL	DESCRIPTION	LAMP	LUMENS	MOUNTING	LLF	QTY
PG	✱	Lithonia Lighting VOPG LED P7 30K TSM MVOLT PM PIR	124 Watt LED	15708	Surface Mount at 13' AFF	0.90	20
S1	⬅	Lithonia Lighting DSX1 LED P5 30K 70CRI BLC4 MVOLT SPA PIR	277 Watt LED	25484	20' Pole on 30" Base CAT. # SSA 20 4G DM19AS FBC	0.90	29
S5	⬅	Lithonia Lighting DSX1 LED P5 30K 70CRI TSW MVOLT SPA PIR	277 Watt LED	35103	20' Pole on 30" Base CAT. # SSA 20 4G DM19AS FBC	0.90	13
WP18	▶	Lithonia Lighting DSXW2 LED 30C 1000 30K TFTM MVOLT PIR	109 Watt LED	10352	Wall Mount at 18' AFF	0.90	8

BOUNDARY FROM SURVEY PREPARED BY NELSON AND POPE
DATED SEPTEMBER 02, 2022.

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#	REVISION	DATE
3	REVISED AS PER CPBC COMMENTS	11-6-2023
2	ISSUED FOR CPBC SUBMISSION	8-8-2023
1	REVISE LANDSCAPE PLAN AS PER CLIENT COMMENTS	7-27-2023

OWNER:
-

APPLICANT:
-

LIGHTING PLAN

PROPOSED LIPA/PSEGLI OPERATION CENTER
SITUATED AT
MEDFORD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY, NEW YORK
S.C.T.M.; DISTRICT: 200, SECTION: 574, BLOCK : 02, LOT: 3.001, 16 & 17.1

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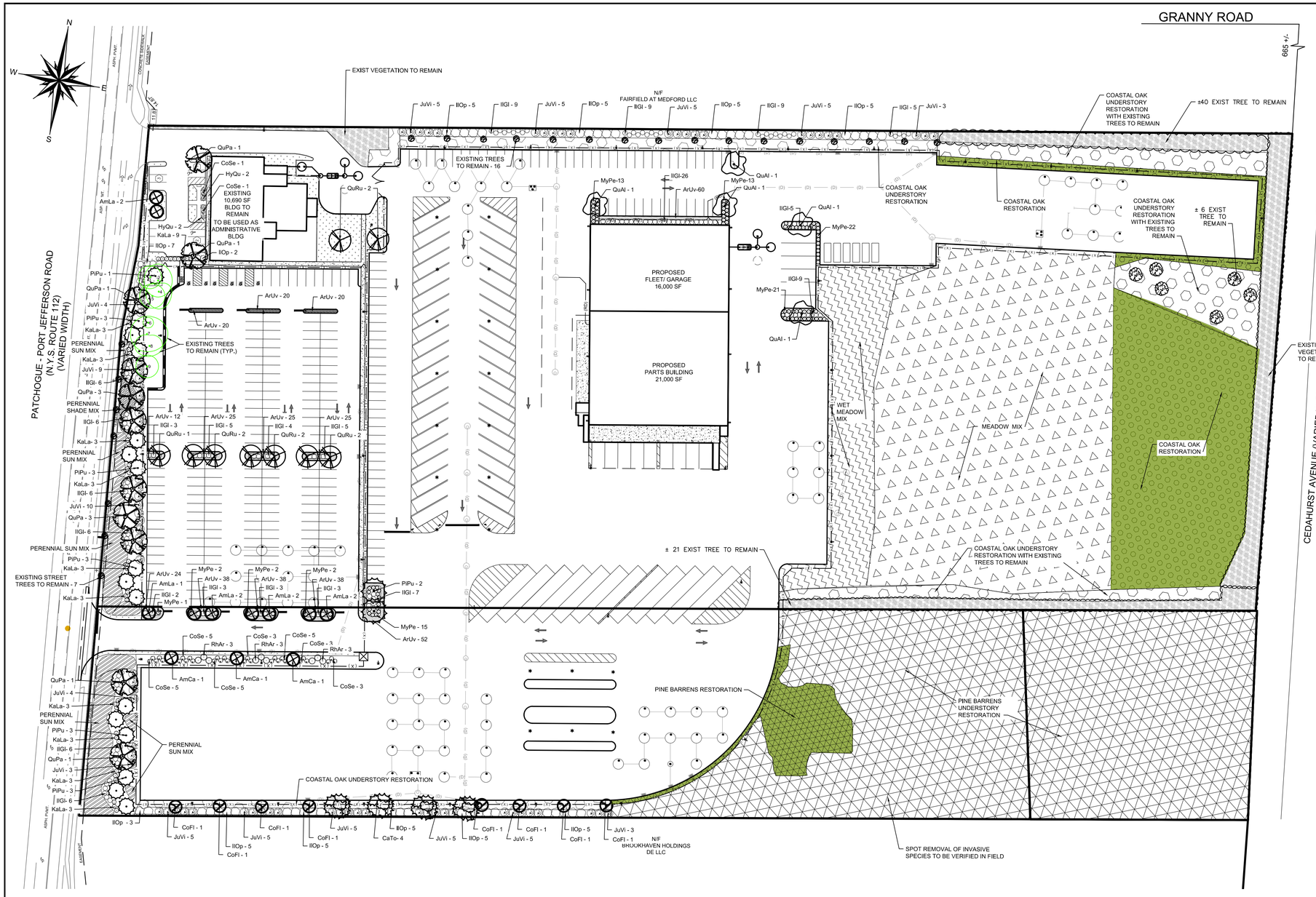
STATE OF NEW YORK — CHRISTOPHER C. VOLK — 097429 — LICENSED PROFESSIONAL ENGINEER

DRAWN BY:	KK	CADD:	08204-SP.DWG	SCALE:	1" = 60'
CHECKED BY:	CCV	FILE NO.:	-		
DATE:	JULY 2023	PROJECT NO.:	08204	SHEET NO.:	C-106



WET MEADOW PLANT LIST			
SYM	TYPE	BOTANICAL NAME	COMMON NAME
	SHRUBS	Cephalanthus occidentalis	Buttonbush
		Clethra alnifolia	Sweet Pepperbush
		Filipendula ulmaria	Meadowsweet
	PERENNIALS	Asclepias incarnata	Swamp milkweed
		Carex scoparia	Broom Sedge
		Carex vulpinoidea	Fox Sedge
		Chelone glabra	White Turtlehead
		Eupatorium perfoliatum	Common Boneset
		Iris versicolor	Northern Blue Flag Iris
		Juncus effusus	Soft Rush
		Lobelia siphilitica	Great Blue Lobelia
		Onoclea sensibilis	Sensitive Fern
		Panicum virgatum	Switchgrass
		Symphyotrichum novae-angliae	New England Aster

APPROX. 23,525 SF TO BE PLANTED IN 2QT OR GREATER 18" O.C. SPACING IN GROUPS OF 3 TO 5 OF THE SAME SPECIES
MAX SHRUB COVERAGE: 20% OF TOTAL SPECIES QUANTITY

MEADOW PLANT LIST			
SYM	TYPE	BOTANICAL NAME	COMMON NAME
	PERENNIALS	Andropogon gerardi	Big Bluestem
		Andropogon scoparius	Little Bluestem
		Asclepias syriaca	Common Milkweed
		Asclepias tuberosa	Butterfly Milkweed
		Baptisia tinctoria	Wild Indigo
		Carex pensylvanica	Pennsylvania Sedge
		Carex scoparia	Broom Sedge
		Panicum virgatum	Switchgrass
		Solidago SP.	Goldenrod
		Sorghastrum nutans	Indian Grass
		Symphyotrichum novae-angliae	New England Aster

APPROX. 104,353 SF TO BE PLANTED IN 2QT OR GREATER 18" O.C. SPACING IN GROUPS OF 5 TO 10 OF THE SAME SPECIES

COASTAL OAK HICKORY- RESTORATION PLANT LIST			
SYM	TYPE	BOTANICAL NAME	COMMON NAME
	TREES	Carya glabra	Pignut Hickory
		Cornus florida	Flowering Dogwood
		Quercus alba	White Oak
		Quercus prinus	Chestnut Oak
		Quercus rubra	Red Oak
	SHRUBS	Gaylussacia baccata	Black Huckleberry
		Vaccinium angustifolium	Lowbush Blueberry
		Viburnum acerifolium	Maple Leaf Viburnum
	PERENNIALS	Carex pensylvanica	Pennsylvania Sedge
		Eurybia divaricata	White Wood Aster

APPROX. 23,525 SF TO BE RESTORED

COASTAL OAK HICKORY UNDERSTORY RESTORATION PLANT LIST			
SYM	TYPE	BOTANICAL NAME	COMMON NAME
	SHRUBS	Gaylussacia baccata	Black Huckleberry
		Ilex glabra	Inkberry Holly
		Vaccinium angustifolium	Lowbush Blueberry
		Viburnum acerifolium	Mapleleaf Viburnum
	PERENNIALS	Carex pensylvanica	Pennsylvania Sedge
		Eurybia divaricata	White Wood Aster
		Maianthemum canadense	Canada Mayflower
		Smilacina recemosa	False Solomons seal

APPROX. 25,500 SF TO BE RESTORED
SPOT REMOVAL OF INVASIVE SPECIES IN SELECT AREAS TO BE VERIFIED IN FIELD

PINE BARREN RESTORATION PLANT LIST			
SYM	TYPE	BOTANICAL NAME	COMMON NAME
	TREES	Pinus rigida	Pitch Pine
		Prunus serotina	Black Cherry
		Quercus alba	White Oak
		Quercus ilicifolia	Scrub Oak
		Quercus marilandica	Blackjack Oak
		Quercus rubra	Red Oak
		Querous velutina	Black Oak
	PERENNIALS AND GRASSES	Arctostaphylos uva-ursi	Bearberry
		Carex pensylvanica	Pennsylvania Sedge
		Dennstaedtia punctilobula	Hay Scented Fern
		Gaylussacia baccata	Huckleberry
		Vaccinium angustifolium	Lowbush Blueberry

APPROX. 9,958 SF TO BE RESTORED

PINE BARREN UNDERSTORY RESTORATION PLANT LIST			
SYM	TYPE	BOTANICAL NAME	COMMON NAME
	SHRUB TREE	Quercus ilicifolia	Scrub Oak
		Quercus marilandica	Blackjack Oak
		Vaccinium angustifolium	Lowbush Blueberry
		Vaccinium membranaceum	Huckleberry
	PERENNIALS	Arctostaphylos uva-ursi	Bear Berry
		Baptisia tinctoria	Wild Indigo
		Carex pensylvanica	Pennsylvania Sedge
		Panicum virgatum	Switch Grass
		Pteridium aquinum	Bracken Fern
		Solidago nemoralis	Gray Goldenrod

APPROX. 134,071 SF TO BE RESTORED AFTER INVASIVE SPECIES ARE REMOVED

PERENNIAL PLANTING-SUN PLANT LIST			
SYM	TYPE	BOTANICAL NAME	COMMON NAME
	PERENNIALS	Agastache foeniculum	Anise hyssop
		Andropogon gerardi	Big Bluestem
		Asclepias tuberosa	Butterflyweed
		Baptisia tinctoria	Yellow Wild Indigo
		Coreopsis verticillata	Whorled tickseed
		Eragrostis spectabilis	Purple Lovegrass
		Liatris spicata	Blazing Star
		Panicum virgatum	Switchgrass
		Schyzachyrium scoparium	Little Bluestem
		Sporobolus heterolepsis	Prairie Dropseed

APPROX. 7,754 SF TO BE PLANTED IN 2 QT OR GREATER 18" O.C. SPACING IN GROUPS OF 3 TO 5 OF THE SAME SPECIES

PERENNIAL PLANTING-SHADE PLANT LIST			
SYM	TYPE	BOTANICAL NAME	COMMON NAME
	PERENNIALS	Actaea racemosa	Black Cohosh
		Arctostaphylos uva-ursi	Bearberry
		Aquilegia canadensis	Wild Columbine
		Dicentra eximia	Wild Bleeding Heart
		Geranium maculatum	Wild Ginger
		Heuchera 'Awakening'	Awakening Coral Bells
		Heuchera 'Magma'	Magma Coral Bells
		Matteuccia struthiopteris	Ostrich Fern
		Parthenocissus quinquefolia	Virginia Creeper
		Tiarella cordifolia 'Brandywine'	Brandywine Foamflower

APPROX. 774 SF TO BE PLANTED IN 2 QT OR GREATER 18" O.C. SPACING IN GROUPS OF 3 TO 5 OF THE SAME SPECIES

GROUNDCOVER MIX PLANT LIST			
SYM	TYPE	BOTANICAL NAME	COMMON NAME
	PERENNIALS	Arctostaphylos uva-ursi	Bearberry
		Carex pensylvanica	Pensylvania Sedge
		Fragaria virginiana	Wild Strawberry
		Phlox subulata	Moss Phlox
		Parthenocissus quinquefolia	Virginia Creeper

APPROX. 4,303 SF TO BE PLANTED

LONG ISLAND SUN AND SHADE MIX
APPROX. 13,342 SF OF PROPOSED SEED COVERAGE

LONG ISLAND SUN AND SHADE GRASS SEED MIX SHALL BE BY ALL PRO HORTICULTURE OR APPROVED EQUAL CONSISTING OF THE FOLLOWING :
- 70% TALL FESCUE
- 25% RYE GRASS
- 5% BLUEGRASS

APPLIED AT A RATE OF 10 - 15 LBS PER ACRE

EXIST VEGETATION TO REMAIN
APPROX. 28,231 SF

EXIST VEGETATION TO REMAIN
WITH TARGETED UNDERSTORY RESTORATION
APPROX. 193,054 SF

PLANT SCHEDULE						
TYPE	SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
TREE	AmCa	12	Amelanchier canadensis	Serviceberry	2.5" B&B	AS SHOWN
	CaTo	4	Carya tomentosa	Mockernut Hickory	2.5" B&B	50' O.C.
	CoFl	8	Cornus forida	Flowering Dogwood	2.5" B&B	50' O.C.
	IlOp	57	Ilex opaca	American Holly	6' HT	10' O.C.
	JuVi	81	Juniperus virginiana	Eastern Red Cedar	6' HT	10' O.C.
	PiPu	18	Picea pungens	Blue Spruce	2.5" B&B	30' O.C.
	QuAl	5	Quercus alba	White Oak	2.5" B&B	30' O.C.
	QuPa	11	Quercus palustris	Pin Oak	2.5" B&B	30' O.C.
	QuRu	9	Quercus rubra	Red Oak	2.5" B&B	30' O.C.
SHRUBS	ArUv	397	Arctostaphylos uva-ursi	Bearberry	2 GAL	3' O.C.
	CoSe	31	Cornus sericea	Red Twig Dogwood	5 GAL	4' O.C.
	HyQu	4	Hydrangea quercifolia	Oak Leaf hydrangea	5 GAL	4' O.C.
	IlGl	149	Ilex glabra	Inkberry	4' HT	5' O.C.
	KaLa	39	Kalmia latifolia	Mountain Laurel	5 GAL	5' O.C.
	MyPe	91	Myrica pensylvanica	Bayberry	3 GAL	4.5' O.C.
	RhAr	9	Rhus aromatica	Fragrant Sumac	7 GAL.	7' O.C.

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)

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BOUNDARY FROM SURVEY PREPARED BY NELSON AND POPE DATED SEPTEMBER 02, 2022.

#	REVISION	DATE
3	REVISED AS PER CPBC COMMENTS	11-6-2023
2	ISSUED FOR CPBC SUBMISSION	8-8-2023
1	REVISE LANDSCAPE PLAN AS PER CLIENT COMMENTS	7-27-2023

OWNER:
-

APPLICANT:
-

LANDSCAPE PLAN

PROPOSED LIPA/PSEGLI OPERATION CENTER
SITUATED AT
MEDFORD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY, NEW YORK
S.C.T.M.; DISTRICT: 200, SECTION: 574, BLOCK : 02, LOT: 3.001, 16 & 17.1

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REGISTERED LANDSCAPE ARCHITECT DONALD EDWARD VITALE No. 001487 STATE OF NEW YORK

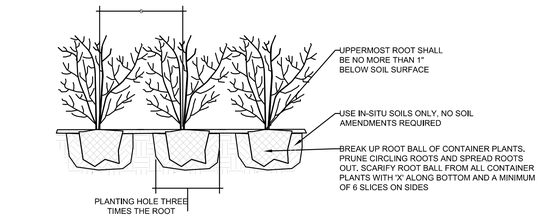
DRAWN BY:	KK	CADD: 08204-LAND.DWG	SCALE:	LA-101
CHECKED BY:	CCV	FILE NO.: -	1" = 60'	
DATE:	JULY 2023	PROJECT NO.: 08204		SHEET NO.: 8 OF 11

MAINTENANCE NOTES

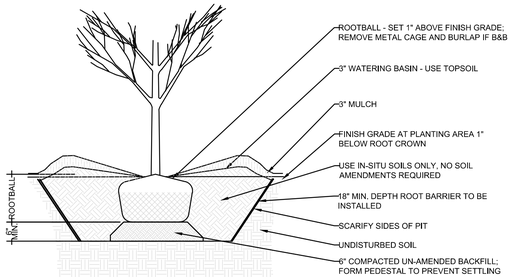
1. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK AND PARTS THEREOF TO FINAL ACCEPTANCE.
2. THE CONTRACTOR SHALL REPLACE ALL PLANT MATERIAL THAT ARE DEAD, IN UNSIGHTLY CONDITION, UNHEALTHY, WITHIN THE THREE YEAR PERIOD FROM THE COMPLETION AND FINAL ACCEPTANCE OF THE COMPLETE CONTRACT. THE WARRANTY PERIOD SHALL BE 3 YEAR FROM DATE OF FINAL ACCEPTANCE OF WORK TO A SURVIVAL RATE OF 85%.
3. SHOULD IRRIGATION BE NEEDED WITHIN THE THREE YEAR PERIOD FROM COMPLETION, A WATER TRUCK WILL BE UTILIZED TO IRRIGATE THE PLANTING AREAS.

PLANTING NOTES

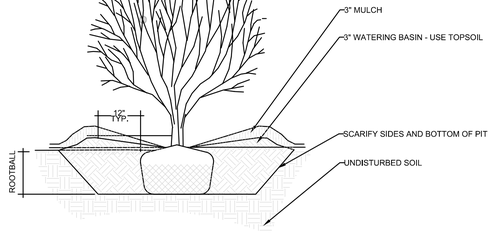
1. ALL PLANT MATERIAL SUPPLIED AND INSTALLED SHALL BE IN ACCORDANCE WITH CURRENT A.A.N. (AMERICAN ASSOCIATION OF NURSERYMEN), AND ACCEPTED INDUSTRY STANDARDS. NO SUBSTITUTION OF MATERIAL SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ECOLOGIST/ ARCHITECT.
2. CULTIVATE AND RAKE OVER FINISHED PLANTING AREA AND LEAVE IN AN ORDERLY CONDITION.
3. FORM A SHALLOW BASIN AROUND EACH PLANT SO AS TO HOLD WATER AND MULCH.
4. PLANT MATERIAL WILL BE PRIMARILY SOURCED FROM WARRENS NURSERY AND LONG ISLAND NATIVE PLANT INITIATIVE (LINPI) WHO CAN PROVIDE ECOTYPIC SPECIES. LIST WILL BE SUPPLEMENTED BY GLOVER PERENNIALS, PINELANDS NURSERY, COUNTRY GARDENS AND ON-SITE TRANSPLANT SPECIES.
5. TEMPORARY DEER FENCE OR STAKING SHOULD BE INSTALLED PRIOR TO INSTALLATION TO DELINEATE THE BOUNDARY OF THE REVEGETATION AREA. IT IS RECOMMENDED THAT THE DEER FENCE REMAIN IN PLACE UNTIL FULL ESTABLISHMENT OF SPECIES.



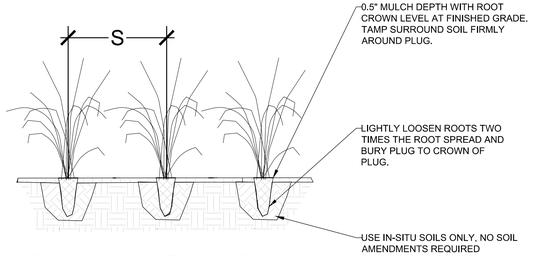
1 CONTAINER INSTALLATION



2 TREE INSTALLATION



3 SHRUB INSTALLATION



4 PLUG INSTALLATION

Scale: NTS

BOUNDARY FROM SURVEY PREPARED BY NELSON AND POPE DATED SEPTEMBER 02, 2022.

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(IN FEET)

GENERAL LANDSCAPE PLANTING NOTES:

1. ALL PRECAUTIONS SHALL BE TAKEN IN CARTING, STORING, AND PLANTING OF MATERIALS TO PROTECT ADJACENT PAVEMENT AND LANDSCAPE AREAS.
2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY-GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES, UNLESS SPECIFICALLY NOTED. ALL PLANTS SHALL BE OF SPECIMEN QUALITY, EXCEPTIONAL HEAVY, SYMMETRICAL, FREE OF DISEASE AND INSECTS, EGGS, OR LARVAE, AND SHALL HAVE HEALTHY WELL DEVELOPED ROOT SYSTEMS. THE LANDSCAPE ARCHITECT AND/OR THE OWNER OR THEIR REPRESENTATIVE RESERVES THE RIGHT TO TAG, INSPECT AND APPROVE ALL PLANT MATERIALS AND REJECT ANY PLANTS FOUND TO BE UNACCEPTABLE AT THE NURSERY, AT THE SITE UPON DELIVERY, OR UPON INSTALLATION. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIAL FROM THE SITE AND REPLACE WITH APPROVED EQUIVALENT BY LANDSCAPE ARCHITECT.
3. ALL PLANTS SHALL BE LABELED BY PLANT NAME. LABELS SHALL BE ATTACHED SECURELY TO ALL PLANTS, BUNDLES AND CONTAINERS WHEN DELIVERED.
4. NO SUBSTITUTIONS OF PLANT MATERIAL WILL BE PERMITTED. IF THE SPECIFIED LANDSCAPE MATERIAL CANNOT BE OBTAINED, THE CONTRACTOR SHALL SUBMIT A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL. SUBSTITUTIONS OF PLANT MATERIALS MUST BE AUTHORIZED IN WRITING BY THE LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
5. THE LANDSCAPE CONTRACTOR SHALL STAKE OUT THE LIMIT OF PLANTING LOCATIONS, PRIOR TO INSTALLATION WITH REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND OR OWNER. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.
6. IF THERE IS A DISCREPANCY BETWEEN THE PLANT LIST AND THE PLANTING PLAN, THE PLAN GOVERNS.
7. IT IS THE CONTRACTORS RESPONSIBILITY TO CALL 811 AND HAVE ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES MARKED PRIOR TO THE START OF EXCAVATION ACTIVITIES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT ENGINEER AND OWNER IF THERE ARE CONFLICTS WITH PROPOSED PLANTING LOCATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
8. THE BACKFILL MIXTURE AND SOIL MIXES ARE TO BE INSTALLED PER THE SPECIFICATIONS.
9. ALL FENCE AND HARDSCAPE INSTALLATIONS SHALL BE COMPLETED PRIOR TO THE COMMENCEMENT OF ANY LANDSCAPE PLANTING, SEEDING OR LAWN.
10. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE, BEFORE INSTALLATION FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE AND QUALITY. REMOVE ALL TWINE, ROPE, WIRE, CONTAINERS, LABELS AND FLAGGING ON PLANTS BEFORE COMPLETION. DISPOSE OF ALL DEBRIS APPROPRIATELY AND SWEEP ALL SURROUNDING PAVEMENTS.
11. ALL TREES AND HEDGES ARE NOT TO BE TRIMMED IN GEOMETRIC FORMS AND ARE TO BE LEFT IN A NATURAL HABIT.
12. MULCHING:
    - 12.1. AT THE TIME OF PLANTING, MULCH WITH NO MORE THAN 3" OF DOUBLE-SHREDDED HARDWOOD MULCH OF A NATURAL COLOR. TAKE CARE TO NOT PILE MULCH AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR, A GAP OF APPROXIMATELY 2 INCHES SHOULD BE LEFT BETWEEN THE MULCH AND THE TRUNK OF THE TREE TO AVOID MOUNDING ABOVE THE TRUNK FLARE.
    - 12.2. ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE LIMITS OF CONSTRUCTION, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A NATURAL DOUBLE-SHREDDED MULCH THAT WILL PREVENT SOIL EROSION AND CONTROL DUST.
    - 12.3. AFTER INITIAL MULCH INSTALLATION, REPLENISH GARDEN BEDS WITH ADDITIONAL MULCH IN MID TO LATE SPRING, ONLY IN AREAS THAT ARE SHOWING BARE SOILS AND/OR COVERED IN WEEDS, REMOVE ALL UNWANTED PLANTS/WEEDS BEFORE DRESSING BED WITH MULCH.
13. DELIVERY, HANDLING AND STORAGE:
    - 13.1. TREES AND SHRUBS: SHALL NOT BE PRUNED PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT. DO NOT BEND, BIND-TIE TREES IN A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. DO NOT DROP BALL AND BURLAPPED STOCK DURING DELIVERY OR HANDLING. PLASTIC, METAL WIRE BASKET AND/OR OTHER ROOT COVERINGS, WRAPPING AND BIND MATERIAL SHALL BE REMOVED ENTIRELY FROM THE PLANT MATERIAL AT TIME OF INSTALLATION.
    - 13.2. STORE PLANT MATERIAL: IF INSTALLATION IS DELAYED MORE THAN 6 HOURS AFTER ARRIVAL TO SITE, THE CONTRACTOR SHALL SET ALL PLANT MATERIAL IN SHADE, PROTECTED FROM WEATHER, MECHANICAL DAMAGE, THIEVERY, AND DETERIORATION. PLANT SOIL MUST BE KEPT MOIST USING A WATERING TANK, HOSE OR OTHER SYSTEM UNTIL READY FOR PLANTING. ANY PACKAGED MATERIALS, SUCH AS BOXED PERENNIALS MUST BE OPENED, UNWRAPPED AND FREE AS TO NOT RESTRAIN AIR CIRCULATION AND WATERING WHILE WAITING TO BE INSTALLED.
14. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
15. IF COMPACTION OCCURS DURING EARTHWORK PRIOR TO PLANT INSTALLATION, THE CONTRACTOR MUST HAVE THE SOIL SCARIFIED AND LOOSENED TO THE DEPTH OF COMPACTION OR 12-18", WHICHEVER IS DEEPEST, WITH A BACKHOE OR EQUIVALENT WITHOUT TAMPING SOILS.
16. ALL FINE GRADED AREAS SHALL BE HAND RAKED SMOOTH TO ELIMINATE ANY CLUMPS, ROCKS, STUMPS, TRASH AND/OR OTHER UNSIGHTLY DEBRIS PRIOR TO PLANTING OR MULCHING.
17. MAINTAIN SITE DRAINAGE DURING LANDSCAPE INSTALLATION. PLANT INSTALLATIONS:
    - 17.1. BALL AND BURLAP TREES: SHALL HAVE A PLANTING HOLE A MINIMUM OF TWICE TO THREE TIMES THE WIDTH AND JUST AS DEEP AS THE ROOT BALL, WITH SLOPED SIDES. TREES SHALL BE PLANTED WITH THE ROOT FLARE AT EXISTING GRADE, WIRE BASKETS, TWINE, BURLAP, NAILS AND TAGS SHALL BE REMOVED COMPLETELY WITHOUT COMPROMISING THE SOIL OF THE PLANT IF SOILS ARE EXTREMELY LOOSE, LEAVE BOTTOM HALF OF BURLAP INTACT AND CUT AND REMOVE TOP HALF OF WIRE BASKET, BACKFILL SOIL JUST BELOW ROOT COLLAR, SOAK TREE PIT IMMEDIATELY WITH 5 GALLONS FOR EVERY INCH OF TRUNK DIAMETER.
    - 17.2. CONTAINER PLANTS: SHALL HAVE THE CONTAINER AND TAGS REMOVED BEFORE INSTALLATION, ROOTS SHALL BE CUT THROUGH THE SURFACE IN AN "X" FORMATION AT BASE OF BALL AND CUT ALONG ALONG THE SIDES OF THE BALL AT LEAST SIX TIMES TO FREE ROOTS AND ENCOURAGE NEW GROWTH, ESPECIALLY IF IT IS ROOT BOUND. FINE ROOTS OF SMALLER CONTAINER PLANTS SHOULD BE TEASED DELICATELY WITH BY HAND OR WITH A HAND CULTIVATOR.
    - 17.3. STAKING OF ANY INSTALLED TREE IS NOT NEEDED.
18. SEEDING:
    - 18.1. SPREAD SEED EVENLY OVER ENTIRE AREA OR SEED WITH BROADCAST SEEDER FOLLOWED BY A RAKE OR CULTIPACKER. SEED CAN ALSO BE SPREAD BY HYDROSEEDING FROM A HOSE AT GROUND LEVEL, NOT THROUGH THE USE OF A TURRET. IF HYDROSEEDING IS SELECTED, SEEDING WILL REQUIRE A TACKIFIER AND A COLORED MULCH.
    - 18.2. THERE SHALL BE NO SEED SUBSTITUTIONS UNLESS AUTHORIZED BY THE LANDSCAPE ARCHITECT.
    - 18.3. GENERALLY SEED APPLICATION RECOMMENDED PER SPECIFIED APPLICATION RATE TO NO MORE THAN ½ INCH DEPTH (OR APPROPRIATE DEPTH FOR SELECTED SPECIES). REFER TO LANDSCAPE PLAN FOR SPECIES, PERCENTAGES AND APPLICATION RATES.
19. INSTALLED PLANTINGS SHALL BE IN PROPER HEALTH AND HAVE A 90% SURVIVAL RATE OVER THE FIRST TWO YEARS FOLLOWING ACCEPTANCE BY THE OWNER. PLANT MATERIAL FOUND TO BE DEAD, DYING OR IN POOR HEALTH SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
20. LANDSCAPING SHALL BE PLANTED AND MAINTAINED IN COMPLIANCE WITH THE TOWN OF OYSTER BAY'S REGULATIONS AND SITE IMPROVEMENT SPECIFICATIONS AND ADDENDA

LAYOUT NOTES

1. VERIFY LOCATION OF ALL BUILDINGS, WALLS, ROADS AND CURBS AFFECTING LANDSCAPE SCOPE OF WORK WITH RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS PRIOR TO COMMENCING SITE WORK.
   VERIFY LOCATION OF ALL VAULTS, ELECTRICAL DUCT BANKS, MANHOLES, CONDUIT, PIPING, DRAINAGE STRUCTURES, LIGHTING, AND OTHER UTILITIES WITH THE APPROPRIATE ENGINEER'S DRAWINGS.
2. WHERE NOT SHOWN ON LANDSCAPE DRAWINGS, SEE CIVIL ENGINEER'S DRAWINGS FOR ROADWAY CENTERLINE, STATION POINTS, BENCHMARKS AND BUILDING SETBACKS.
3. TAKE ALL DIMENSIONS FROM CENTER OF CURB, WALL OR BUILDING OR TO CENTERLINE OF BUILDING COLUMNS OR TREES UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS CALLED OUT AS "EQUAL" OR "EQ" ARE EQUIDISTANT MEASUREMENTS BETWEEN THE REFERENCE POINTS SHOWN.
5. ALL ITEMS DESIGNATED AS "SIM" OR "TYP" ARE TO BE CONSTRUCTED IN THE MANNER OF THE DETAIL REFERENCED, WITH MINOR ADJUSTMENT FOR SPECIFIC CONDITION.
6. ALL ANGLES ARE 90 DEGREES AND ALL LINES ARE TO BE HELD PARALLEL UNLESS OTHERWISE NOTED ON THE DRAWINGS. MAINTAIN HORIZONTAL ALIGNMENT FOR ALL ADJACENT ELEMENTS SO REFERENCED ON THE DRAWINGS.
7. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE APPARENT ON DRAWINGS. DO NOT SCALE FROM DRAWINGS. SEE ENLARGED PLANS AND SPECIFIC DETAILS FOR ADDITIONAL INFORMATION.
8. INDIVIDUAL NOTES AND SPECIFIC DETAILS TAKE PRECEDENCE OVER GENERAL NOTES AND GENERIC DETAILS.

UTILITY NOTES:

1. THE CONTRACTOR IS HEREBY NOTIFIED THAT UNDERGROUND UTILITIES EXIST AT THE SITE. VERIFICATION OF LOCATION OF EXISTING UTILITIES IS REQUIRED PRIOR TO COMMENCEMENT OF WORK.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF ALL EXISTING UTILITY INFORMATION.
3. ANY DAMAGE OR DISTURBANCE TO EXISTING UTILITIES DURING THE DURATION OF THE CONTRACT IS TO BE REPAIRED/REPLACED "IN KIND" BY THE CONTRACTOR AT HIS OWN EXPENSE.

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OWNER:
-

APPLICANT:
-

REGISTERED LANDSCAPE ARCHITECT RONALD EDWARD POPE No. 001441 STATE OF NEW YORK

LANDSCAPE DETAILS

PROPOSED LIPA/PSEGLI OPERATION CENTER
SITUATED AT
MEDFORD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY, NEW YORK
S.C.T.M.; DISTRICT: 200, SECTION: 574, BLOCK : 02, LOT: 3.001, 16 & 17.1

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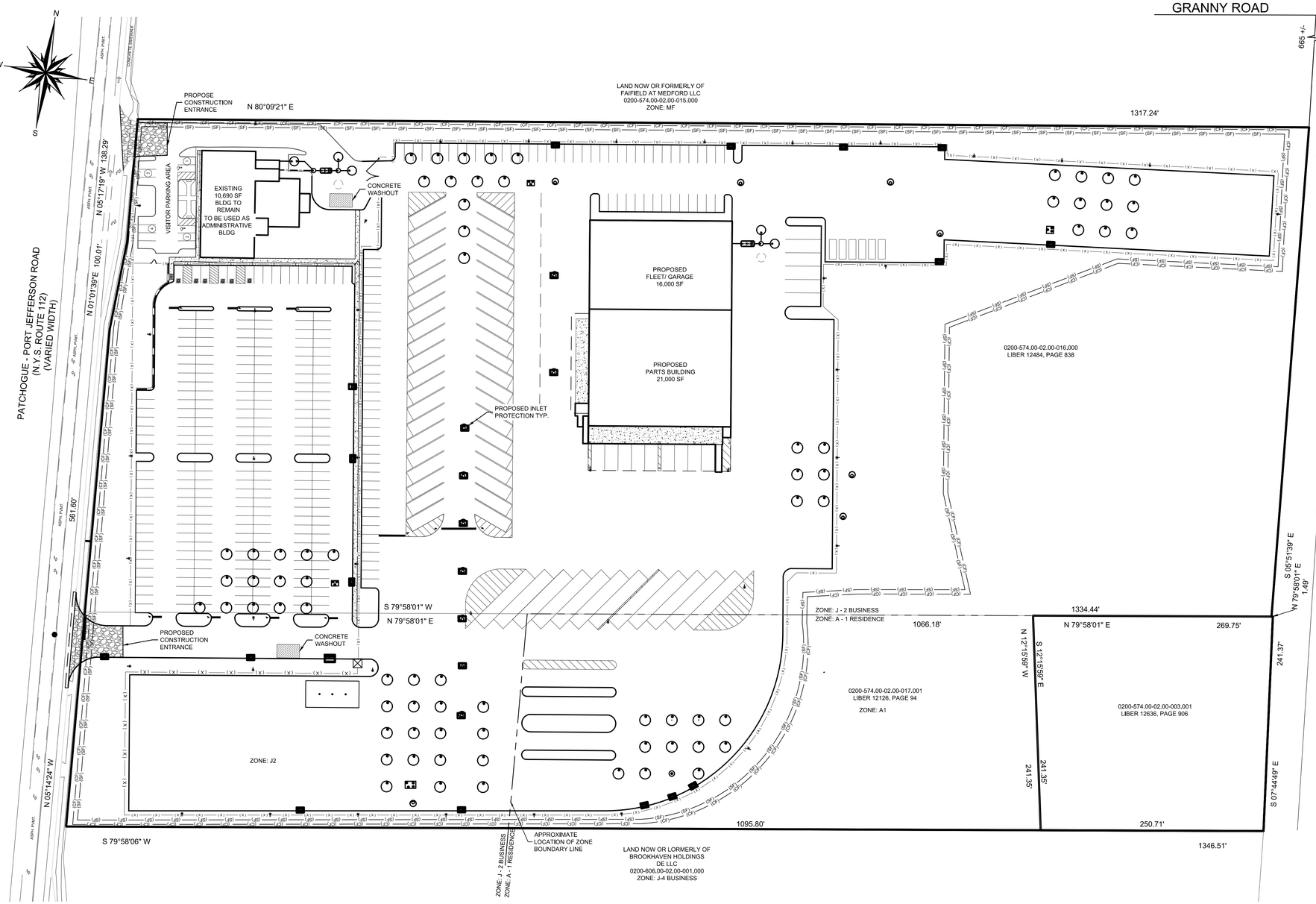
CHECKED BY:	CCV	FILE NO.:	-	AS NOTED	
DATE:	JULY 2023	PROJECT NO.:	08204	SHEET NO.:	9 OF 11



SEDIMENT AND EROSION CONTROL NOTES

1. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL IMPLEMENT, MAINTAIN AND MODIFY AS CONDITIONS WARRANT, SEDIMENT AND CONTROL MEASURES IN GENERAL CONFORMANCE TO THE LATEST EDITION OF THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (THE "BLUE BOOK"), AS ORDERED BY THE JURISDICTIONAL ENTITY(S) FOR THE DURATION OF CONSTRUCTION ACTIVITIES AND THE SITE IS STABILIZED, AS SHOWN ON THE SEDIMENT AND CONTROL PLANS AND MEASURES CONTAINED HEREIN AND IF APPLICABLE THE APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE IMPLEMENTATION OF AND COMPLIANCE WITH THE SEDIMENT AND EROSION CONTROL REQUIREMENTS AND REGULATIONS
3. ALL DISTURBED AREAS SHALL BE STABILIZED UTILIZING APPROVED MEASURES IF INACTIVE FOR GREATER THAN 2-WEEKS

EROSION CONTROL NOTES

1. A - EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AND REMAIN UNDISTURBED.
   B - CLEARING AND GRADING SHALL BE SCHEDULED SO AS TO MINIMIZE THE SIZE OF EXPOSED AREAS AND THE LENGTH OF TIME THAT AREAS ARE EXPOSED.
   C - THE LENGTH AND STEEPNESS OF CLEARED SLOPES SHALL BE MINIMIZED TO REDUCE RUN-OFF VELOCITIES.
   D - RUN-OFF SHALL BE DIVERTED AWAY FROM CLEARED SLOPES.
   E - SEDIMENT SHALL BE TRAPPED ON-SITE.
2. SPECIFIC METHODS AND MATERIALS EMPLOYED IN THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES SHALL CONFORM TO THE NEW YORK GUIDELINES FOR EROSION AND SEDIMENT CONTROL, LATEST EDITION.
3. SEDIMENT BARRIERS (SILT FENCES, HAY BALES OR APPROVED EQUAL) SHALL BE INSTALLED AS REQUIRED ALONG LIMITS OF DISTURBANCE FOR THE DURATION OF THE WORK. NO SEDIMENT FROM THE SITE SHALL BE PERMITTED TO WASH ON TO ADJACENT PROPERTIES, WETLANDS OR ROADS.
4. GRADED AND STRIPPED AREAS AND STOCKPILES SHALL BE KEPT STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AS REQUIRED. SEED MIXTURE SHALL BE IN ACCORDANCE WITH SOIL CONSERVATION SERVICE RECOMMENDATIONS.
5. DRAINAGE INLETS INSTALLED AS PART OF THE PROJECT SHALL BE PROTECTED FROM SEDIMENT BUILD-UP THROUGH THE USE OF SEDIMENT BARRIERS, SEDIMENT TRAPS, ETC., AS REQUIRED.
6. INSPECTION AND MAINTENANCE OF EROSION CONTROL MEASURES IS TO BE PERFORMED DAILY BY CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR THE DAY AND AFTER HEAVY OR PROLONGED STORMS. MAINTENANCE MEASURES INCLUDE, BUT NOT LIMITED TO, CLEANING OF SEDIMENT BASINS OR TRAPS, CLEANING OR REPAIR OF SEDIMENT BARRIERS, CLEANING AND REPAIR OF BERMS AND DIVERSIONS, AND CLEANING AND REPAIR OF OF INLET PROTECTION.
7. APPROPRIATE MEANS SHALL BE USED TO CONTROL DUST DURING CONSTRUCTION. SEE DUST CONTROL NOTES, THIS SHEET.
8. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT SOIL AND LOOSE DEBRIS FROM BEING TRACKED ONTO LOCAL ROADS. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.
9. SEDIMENT BARRIERS AND OTHER EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL UPLAND DISTURBED AREAS ARE PERMANENTLY STABILIZED. AFTER PERMANENT STABILIZATION, PAVED AREAS SHALL BE CLEANED AND DRAINAGE SYSTEM FLUSHED AS NECESSARY.
10. DURING THE COURSE OF CONSTRUCTION, CERTAIN EROSION AND SEDIMENT CONTROL MEASURES MAY BECOME NECESSARY TO PREVENT THE TRANSPORT OF SEDIMENT TO OFF-SITE AREAS, PONDS, WATER COURSES, DRAINAGE INLETS, RECHARGE BASINS, ETC. ACTUAL EROSION CONTROL MEASURES WILL BE DICTATED BY FIELD CONDITIONS AS CONSTRUCTION PROGRESSES BUT THE GENERAL CONDITIONS IN NOTES 1 THROUGH 9 SHALL BE OBSERVED.

DUST CONTROL NOTES

DEFINITION
THE CONTROL OF DUST RESULTING FROM LAND-DISTURBING ACTIVITIES.

PURPOSE
TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM DISTURBED SOIL SURFACES THAT MAY CAUSE OFF-SITE DAMAGE, HEALTH HAZARDS AND TRAFFIC SAFETY PROBLEMS.

CONDITIONS WHERE PRACTICE APPLIES
ON CONSTRUCTION ROADS, ACCESS POINTS, AND OTHER DISTURBED AREAS SUBJECT TO SURFACE DUST MOVEMENT AND DUST BLOWING WHERE OFF-SITE DAMAGE MAY OCCUR IF DUST IS NOT CONTROLLED.

DESIGN CRITERIA
CONSTRUCTION OPERATIONS SHOULD BE SCHEDULED TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ONE TIME. BUFFER AREAS OF VEGETATION SHOULD BE LEFT WHERE PRACTICAL. TEMPORARY OR PERMANENT STABILIZATION MEASURES SHOULD BE INSTALLED. NO SPECIFIC DESIGN CRITERIA ARE GIVEN; SEE CONSTRUCTION SPECIFICATIONS BELOW FOR COMMON METHODS OF DUST CONTROL.

WATER QUALITY MUST BE CONSIDERED WHEN MATERIALS ARE SELECTED FOR DUST CONTROL. WHERE THERE IS POTENTIAL FOR THE MATERIAL TO WASH OFF TO A STREAM OR WATER BODY, INGREDIENT INFORMATION MUST BE PROVIDED TO THE LOCAL PERMITTING AUTHORITY.

CONSTRUCTION SPECIFICATIONS

A. NON-DRIVING AREAS - THESE AREAS USE PRODUCTS AND MATERIALS APPLIED OR PLACED ON SOIL SURFACES TO PREVENT AIRBORNE MIGRATION OF SOIL PARTICLES.

VEGETATIVE COVER - FOR DISTURBED AREAS NOT SUBJECT TO TRAFFIC; VEGETATION PROVIDES THE MOST PRACTICAL METHOD OF DUST CONTROL. TEMPORARY SEEDING SHALL BE AS FOLLOWS:

RYE GRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE (0,7 LBS./1,000 S.F.)

CERTIFIED "AROOSTOOK" WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE (2.5 LBS./S.F.)

USE WINTER RYE IF SEEDING IN OCTOBER / NOVEMBER.

MULCH (INCLUDING GRAVEL MULCH) - MULCH OFFERS A FAST, EFFECTIVE MEANS OF CONTROLLING DUST. THIS CAN ALSO INCLUDE ROLLED EROSION CONTROL BLANKETS.

SPRAY ADHESIVES - THESE ARE PRODUCTS GENERALLY COMPOSED OF POLYMERS IN A LIQUID OR SOLID FORM THAT ARE MIXED WITH WATER TO FORM AN EMULSION THAT IS SPRAYED ON THE SOIL SURFACE WITH TYPICAL HYDROSEEDING EQUIPMENT. THE MIXING RATIOS AND APPLICATION RATES WILL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIC SOILS ON THE SITE. IN NO CASE SHOULD THE APPLICATION OF THESE ADHESIVES BE MADE ON WET SOILS OR IF THERE IS A PROBABILITY OF PRECIPITATION WITHIN 48 HOURS OF ITS PROPOSED USE. MATERIAL SAFETY DATA SHEETS WILL BE PROVIDED TO ALL APPLICATORS AND OTHERS WORKING WITH THE MATERIAL.

EXAMPLES OF SPRAY ADHESIVES FOR USE ON MINERAL SOILS ARE SHOWN IN THE FOLLOWING TABLE.

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS ACRE
ACRYLIC POLYMER	9:1	COURSE SPRAY	500
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300

B. DRIVING AREAS - THESE AREAS UTILIZE WATER, POLYMER EMULSIONS AND BARRIERS TO PREVENT DUST MOVEMENT FROM THE TRAFFIC SURFACE INTO THE AIR.

SPRINKLING - THIS SITE MAY BE SPRAYED UNTIL THE SURFACE IS WET. THIS IS ESPECIALLY EFFECTIVE ON HAUL ROADS AND ACCESS ROUTES.

POLYMER ADDITIVES - THESE POLYMERS ARE MIXED WITH WATER AND APPLIED TO THE DRIVING SURFACE BY A WATER TRUCK WITH A GRAVITY FEED DRIP BAR, SPRAY BAR OR AUTOMATED DISTRIBUTOR TRUCK. THE MIXING RATIOS AND APPLICATION RATES WILL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. INCORPORATION OF THE EMULSION INTO THE SOIL WILL BE DONE TO THE APPROPRIATE DEPTH BASED ON EXPECTED TRAFFIC, COMPACTION AFTER INCORPORATION WILL BE BY VIBRATORY ROLLER TO A MINIMUM OF 95%. THE PREPARED SURFACE SHALL BE MOIST AND NO APPLICATION OF THE POLYMER WILL BE MADE IF THERE IS A PROBABILITY OF PRECIPITATION WITHIN 48 HOURS OF ITS PROPOSED USE. MATERIAL SAFETY DATA SHEETS WILL BE PROVIDED TO ALL APPLICATORS WORKING WITH THE MATERIAL.

BARRIERS - WOVEN GEOTEXTILES CAN BE PLACED ON THE DRIVING SURFACE TO EFFECTIVELY REDUCE DUST THROW AND PARTICLE MIGRATION ON HAUL ROADS. STONE CAN ALSO BE USED FOR CONSTRUCTION ROADS FOR EFFECTIVE DUST CONTROL.

WINDBREAK - A SILT FENCE OR SIMILAR BARRIER CAN CONTROL AIR CURRENTS AT INTERVALS EQUAL TO TEN TIMES THE BARRIER HEIGHT. PRESERVE EXISTING WIND BARRIER VEGETATION AS MUCH AS PRACTICAL.

MAINTENANCE
MAINTAIN DUST CONTROL MEASURES THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS ARE STABILIZED.

EROSION CONTROL MEASURES LEGEND

SILT FENCE	(SF) (SF)
GATOR GRATE PROTECTION	
CONSTRUCTION ENTRANCE	
CONCRETE WASHOUT	
CONSTRUCTION FENCE	(CF) (CF)

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)

BOUNDARY FROM SURVEY PREPARED BY NELSON AND POPE
DATED SEPTEMBER 02, 2022.

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW ARTICLE 145, PROFESSIONAL ENGINEERING AND LAND SURVEYING, SECTION 7209 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND SPECIFIC DESCRIPTION OF THE ALTERATION.

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OWNER:
-

APPLICANT:
-

EROSION CONTROL PLAN

PROPOSED LIPA/PSEGLI OPERATION CENTER

SITUATED AT
MEDFORD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY, NEW YORK
S.C.T.M.; DISTRICT: 200, SECTION: 574, BLOCK : 02, LOT: 3.001, 16 & 17.1

STATE OF NEW YORK — CHRISTOPHER C. VOLK — 097429 — LICENSED PROFESSIONAL ENGINEER

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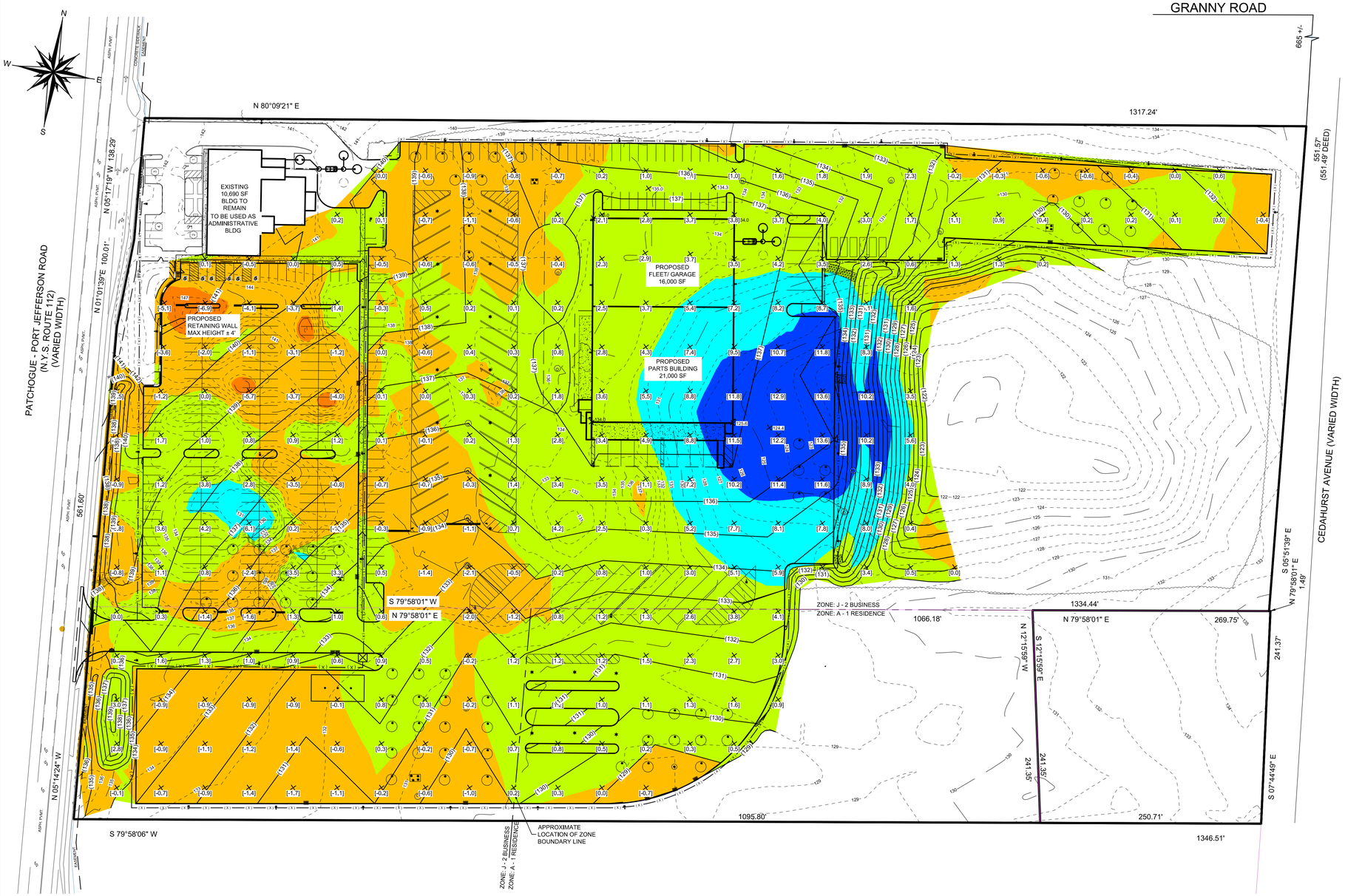
SHEET NO.: 10 OF 11



EARTHWORK ANALYSIS

CUT CALCULATIONS:
CUT: - 10,050 CY (BUILDING MATERIALS)
CUT: - 4,000 CY (DRAINAGE AND SANITARY STRUCTURES)
CUT: - 9,035 CY (GRADING)
SUBTOTAL: - 23,085 CY

FILL CALCULATIONS
FILL: + 50,250 CY (GRADING)

NET CALCULATION
CUT: 23,085 CY
FILL: 50,250 CY
NET: ±27,165 CY (FILL)

NOTES / ASSUMPTIONS
1. SOIL CUT AND FILL CALCULATIONS ACCOUNT FOR BUILDING FOUNDATION BUILDING MATERIALS.
2. BUILDING PERIMETER FOUNDATION ASSUMED TO BE 4 CF PER LF
3. BUILDING SLAB THICKNESS ASSUMED TO BE 10" (INCLUDING SUBBASE)
4. PAVEMENT THICKNESS ASSUMED TO BE 5" (DOES NOT INCLUDING SUBBASE)
5. QUANTITIES ARE BASED ON BULK CY MEASUREMENTS.

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-20.00	-15.00	
2	-15.00	-10.00	
3	-10.00	-5.00	
4	-5.00	0.00	
5	0.00	5.00	
6	5.00	10.00	
7	10.00	15.00	
8	15.00	20.00	

LEGEND

[4.2] PROPOSED FILL

[4.2] PROPOSED CUT

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