DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

Wainscott Commercial Center
Preliminary Subdivision

Wainscott, New York

NPV No. 17071

Prepared for Submission to:

Members of the Planning Board
Town of East Hampton
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East Hampton, NY 11937

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July 16, 2020

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Wainscott Commercial Center
Preliminary Subdivision

Hamlet of Wainscott, Town of East Hampton
Suffolk County, New York

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July 17, 2020

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1.0 DESCRIPTION OF THE PROPOSED PROJECT

Introduction

This document is a Draft Environmental Impact Statement (DEIS) which provides detailed supplemental environmental information and analyses for the proposed preliminary subdivision known as the "Wainscott Commercial Center." This document is provided pursuant to the Town of East Hampton Planning Board's (the "Town Planning Board") September 5, 2018 Environmental Assessment Form Part II and III and Positive Declaration Determination of Significance (**Appendix A-1**). The subject site (or "subject property"), located in the Town's Commercial-Industrial (CI) zoning district, consists of 70.51± acres of a reclaimed sand and gravel mine which is located on the north side of Old Montauk Highway, north of New York State Route 27 (Montauk Highway), and south of the Long Island Rail Road between Wainscott Northwest Road to the west and Hedges Lane to the east in the hamlet of Wainscott, Town of East Hampton, Suffolk County, New York. **Figure 1-1** provides a location map of the project site *(all figures are located in the section following the main text of this document)*. The subject property is further identified as Suffolk County Tax Map (SCTM)#s District 0300 – Section 192.000 – Block 02.00 – Lots 006.002, 006.003, 006.004, 006.005, 006.006 & 006.007.

The Applicant, Wainscott Commercial Center LLC, seeks the Town Planning Board's (Lead Agency) approval to subdivide the subject property into 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF (the "Proposed Action"). One of the proposed lots (Lot 21 to be approximate 180,364 SF in size) will contain an existing ready mix plant (Suffolk Cement) and an adjacent lot (Lot 22 to be approximately 260,732 SF in size) will contain an existing masonry and tile supply yard (Southampton Masonry). A proposed Site Plan has been filed for each of these existing businesses which will continue to operate on proposed Lot 21 and Lot 22, respectively. The subdivision will include buffer areas to be located adjacent to existing residential areas west and east of the subject property, as well as infrastructure improvements consisting of roads and underground utilities including public water and natural gas lines.

This document describes the Proposed Action, outlines its benefits, identifies anticipated environmental impacts, considers project alternatives, and determines appropriate mitigation measures to avoid or alleviate potential impacts to the maximum extent practicable as required by 6 NYCRR Part 617, New York State Environmental Quality Review (SEQRA). This DEIS is intended to provide essential information and analyses that are necessary for the Town Planning Board, as the Lead Agency for this SEQRA review, to render an informed decision on the merits and environmental implications of the Proposed Action and take a "hard look" at the potential environmental effects of the Proposed Action as required by SEQRA. Environmental impacts that are examined by this DEIS include those potential impacts identified by the Town Planning Board September 5, 2018 Positive Declaration Determination of Significance (**Appendix A-1**) and its Final Scope, dated January 7, 2019 (**Appendix A-2**). Topics for review in this DEIS as identified by the Determination of Significance and Final Scope include potential

impacts on land; surface water; groundwater; open space and recreation; Critical Environmental Areas; transportation; energy; noise, odor and light; human health; consistency with community plans; and consistency with community character. Impacts identified by this DEIS are examined in detail in **Section 2.0**, "Natural Environmental Resources," and **Section 3.0**, "Human Environmental Resources," and are summarized in the **Executive Summary**, along with recommended impact prevention and mitigation strategies and alternatives.

1.1. Project Background, Need, Objectives and Benefits

1.1.1 Project Background

This DEIS has been prepared as a supplement to the previous Full Environmental Assessment Form (EAF) Part 1 (**Appendix A-3**) submitted as part of a Subdivision Application to the Town on January 8, 2018. This DEIS provides additional information, descriptions, discussions and analyses of existing conditions and those potential impacts of the project that may adversely affect the environment. This DEIS has also been prepared based on guidance from the Town's Determination of Significance (i.e., "Positive Declaration"), the DEIS content requirements set forth in Section 617.9 of SEQRA and the adopted Final Scope. This document also provides an analysis of: (i) the potential environmental impacts of the proposed subdivision of the property ("Proposed Action"); (ii) the Proposed Action modified to reflect the relocation of Suffolk Cement to the northern portion of Lot 22 (the "Suffolk Cement Relocation Alternative"); (iii) an open space alternative with 38 lots and 7 acres of parkland and the 4.14± acres on Lot 21 to potentially be acquired by the Town subsequent to the Suffolk Cement relocation ("Open Space Alternative"); (iv) an alternative driven by the Wainscott Hamlet Report with 26 lots, 14 acres to be acquired by the Town for parkland, 7 acres of open space, 4.25 acres to be acquired by the Town for parking and other municipal uses subsequent to relocation of Suffolk Cement and 2.17 acres of land to potentially be acquired for train station parking ("Hamlet Plan"); and, (v) if no future actions were taken, resulting in the development of six existing continuous commercial industrial (CI) zoned lots ranging in size from 4.06± acres to 37.95± acres ("The No Action Alternative"). These analyses establish a comparative assessment of potential impacts.

The Applicant, Wainscott Commercial Center LLC (together with two affiliates), has owned the six existing contiguous commercial industrial (CI) zoned lots aggregating 70.51± acres comprised of mostly a vacant reclaimed sand and gravel mine since 1984. According to the Applicant, the New York State Department of Environmental Conservation (NYSDEC) mining and reclamation permit for the subject site ended in July 1998 when the NYSDEC approved the final reclamation of the subject site and released the financial reclamation surety bond. Prior to 1984, the site was already utilized by a few commercial and industrial clients (including Suffolk Cement and Southampton Masonry), which were primarily located at the southern end of the site, as they currently stand today. The Applicant has continued to reclaim the site, beyond what was required by the NYSDEC, and has brought additional clean fill and topsoil to the site in order to regrade the northern portion of the subject site.

In 1996, a site plan application was submitted for a multiple use industrial complex which consisted of the development of 18 large parcels at the subject property raging in size from

approximately 3.5 acres to 5 acres to be leased, as well as a few small residential properties thereon. However, this application was abandoned. Subsequently, the 2001 Wainscott Commercial Center DEIS ("2001 DEIS") was prepared and submitted for redevelopment of the subject property into a 25 lot subdivision with lots ranging in size from approximately two acres to four acres with approximately 4,000 linear feet of roads and underground utilities. This DEIS was prepared on May 29, 2001 by Land Marks Land Planning and Conservation for Sand Land Corporation and submitted to the Town Planning Board for its review and comment. That project was halted as the 2001 DEIS was being revised to address the Town Planning Board's comments by successive Town-wide moratoriums enacted in connection with the development and enactment of the 2005 East Hampton Town Comprehensive Plan. Since then, the subject site has remained in its current underutilized and predominantly vacant state.

1.1.2 Objectives of the Proposed Sponsor

The proposed subdivision of the subject property will create 50 CI zoned parcels for current and future use in conformance with zoning, expected to be developed over a number of years, if not decades, in response to market demand for additional service commercial, wholesale and warehouse businesses. These types of businesses will provide vital services and support to the Town's dominant and expanding construction, tourism, and second homeowner's driven economy (see, May 2017 Hamlet Business District Plan, Town of East Hampton, New York prepared by RKG Associates, Inc.) Thus, the Proposed Action presents a long-term economic development opportunity for the Town of East Hampton

In September 2017, Wainscott Commercial Center LLC prepared a study of Commercial Industrial (CI) zoned parcels within the Town of East Hampton (see **Appendix B**). This study determined the number of vacant CI zoned parcels in the Town that could be potentially developed. The study concluded that as of September 2017, there were only 29 vacant CI zoned parcels (representing 11.03% of the 263 parcels zoned Commercial Industrial (CI) in the Town) that are available for future CI uses. Of those 29 vacant parcels, 12 parcels are owned by the Town and 17 are privately owned. Four of the 17 privately-owned vacant parcels are located at the subject property, which range in size from 4.1 acres to 7.7 acres and are the largest privately-owned vacant CI lots in the Town. The remaining 13 privately owned vacant parcels are between 0.23 acres to 0.92 acres in size. Since September 2017, three of 17 privately-owned vacant parcels have been developed or are in the process of being developed.[1] Therefore, there are only 14 privately owned vacant CI lots in the Town to date (four of which are owned by the Applicant and are part of the Proposed Action).

The Applicant is seeking subdivision approval and related site plan approval for the subject property (see **Appendix A-4**) to provide:

[1] These properties include Montauk Industrial Road (SCTM # 300-27-4-8.8), west of Springs Fireplace Road (SCTM # 300-123-5-25.1) and east side of Springs Fireplace Road and adjacent lots (SCTM# 300-145-5-3.1).

- A subdivision layout with 50 appropriately sized CI zoned lots for the existing uses on the site and to provide for future development in conformance with zoning and based on market demand;
- Buffer areas aggregating 331,598± SF (7.61± acres) to be located adjacent to residential areas to the west and east of the subject site;
- Paved internal roadways totaling approximately 291,891 SF (6.71± acres) lined with street trees and lawn area (approximately 3.1 acres of the total 6.71± acres);
- Proposed location of storm drains within future internal roads and stormwater treatment areas on each lot to ensure proper site drainage;
- Proposed rain gardens/bio-detention areas at the rear of each lot totaling approximately 16 percent of each lot area;
- Location of underground utilities that will service the future lots;
- Safe, convenient access to and from the site from Old Montauk Highway; Wainscott Northwest Road; Daniels Hole Road and Georgica Drive; and
- Continuation of Suffolk Cement's existing business on Lot 21 and Southampton Masonry's existing business on Lot 22.

1.1.3 Benefits of the Proposed Project and Need

The subject property is the largest vacant CI zoned site in the Town and is currently comprised of six tax lots. As the majority of East Hampton's economy is driven by construction, tourism and second home development and maintenance, there is less need for large commercial and industrial properties in the Town. As noted in the *Study of Parcels Zoned Commercial Industrial Within the Town of East Hampton* prepared by the Applicant (see **Appendix B**), approximately 11.03% or 29 parcels of the CI parcels in the Town are vacant and available for future uses. However, of those 29 parcels, 12 parcels are owned by the Town and 17 parcels are privately owned. The largest four of the 17 privately owned vacant parcels belong to the Wainscott Commercial Center and range from 8± acres to 4± acres in size. Remaining are 13 privately owned vacant parcels that range in size from 0.23± acres to 0.92± acres. As noted above, since the time of this study, three of 17 privately-owned vacant parcels have been developed or are in the process of being developed. Thus, currently there are only 14 privately owned vacant CI lots in the Town. Based on this analysis, it is apparent that few undeveloped CI zoned parcels remain in the Town for future small commercial service, wholesale and warehouse businesses. Based on the foregoing, subdivision of the subject property into 50 CI lots would accommodate the current and future economic needs of the Town by creating small undeveloped CI zoned parcels for existing and additional service commercial, wholesale and warehouse businesses.

Additional benefits associated with redevelopment of the subject property include the retention of existing vegetation along the eastern and western property lines to screen the future uses at the site from adjacent residential neighborhoods. In total, 7.61± acres would remain along these property lines that would provide screening and separation between the 50

proposed lots and the residential uses. Additionally, subdividing the subject property into 50 commercial lots to be developed over time would remove the uncertainty regarding the site's future and would greatly enhance the site's visual appearance. Furthermore, redevelopment of the site would also provide the Applicant the incentive and path forward to modernize and upgrade certain existing activities at the subject property.

Rain gardens/bio-detention areas would be established at the rear of each lot. Each rain garden would total approximately 16 percent of each lot area and would consist of native plantings. These rain gardens will remove phosphorus, nitrogen, suspended solids and bacteria, as well as capture stormwater runoff. The Applicant commits to not using fertilized turf for lawn areas and instead would utilize low mow grass for lawn areas (i.e., blend of fescue grasses) at each lot. In addition, low mow grass and street trees would be installed along the proposed internal roadway systems throughout the subject property. Upon subdivision approval, the Applicant will stabilize the site with installation of meadow mix as part of the installation of the road system, until the development of individual lots occurs through site plan review.

Internal access throughout the site is currently limited to unpaved trails within the subject property. Redevelopment of the site would include a new internal roadway system that would provide sufficient internal circulation. Each lot would provide adequate space for parking areas to serve future developments and would eliminate the need for on-street parking along Old Montauk Highway. Individual site development would occur based on market conditions, and would be subject to site plan, and in certain cases, special permit review by the Town Planning Board at the time of each lot's development. To provide thorough information for the full extent of the proposed project and as part of this SEQRA DEIS, typical plot plans and associated landscaping plans are provided as a basis of analysis, and the full yield of the property is considered (see **Appendix A-5**). The Applicant commits to the use of Low Nitrogen Sanitary Systems at the time each lot is developed, and these installations will be selected from the list of Suffolk County Department of Health Services (SCDHS) pre-approved Innovative/Alternative Onsite Wastewater Treatment Systems (I/A OWTS). Although the selected systems will be pre-approved as meeting the applicable discharge limitation of total nitrogen at a concentration of less than 19 milligrams per liter (mg/l), SCDHS review and approval of sanitary systems and water supply will be completed for development of each lot in conformance with all applicable regulations and review procedures.

The proposed subdivision will eventually lead to redevelopment of the former reclaimed sand mine, which is currently an underutilized and predominantly vacant property adjacent to Wainscott Business District. The current configuration of the subject property is not conducive to reasonable redevelopment of the site. Subdivision of the subject property into 50 small lots would provide opportunities to locate current and future small service and support companies to serve business needs within the Town. The project will generate needed temporary construction jobs and full-time employment once tenants have been established, thereby providing employment opportunities to the community. Thus, redevelopment of the current vacant and underutilized property would provide local economic activity which would benefit the Town, its residents and existing as well as future businesses.

1.2. Location

The 70.51± acre subject site is comprised of six tax lots and is located north of Montauk Highway, on the north side of Montauk Highway, south of the Long Island Rail Road (LIRR) tracks, west of Hedges Lane and east of Wainscott Northwest Road in the Hamlet of Wainscott, Town of East Hampton, Suffolk County, New York (see **Figure 1-1**). The property is further identified as Suffolk County Tax Map District 300; Section 192; Block 2; Lots 6.2, 6.3, 6.4, 6.5, 6.6 and 6.7.

The subject site is located in an area containing a variety of existing land uses including: a transportation corridor to the north (LIRR), with vacant land, industrial, municipal, educational, agricultural and transportation uses farther north; commercial and small industrial uses to the south and single-family residential neighborhoods to the east and west (see **Figure 1-2**).

The subject property to be subdivided and redeveloped as described is within the following planning, zoning, and public service districts:

- Town of East Hampton Commercial Industrial (CI) zoning district
- Wainscott Common School District (SD)
- Bridgehampton Fire Department/Fire District
- East Hampton Town Police Department
- Suffolk County Groundwater Management Zone V
- Suffolk County Water Authority (SCWA), Distribution Area 23
- Wainscott Water Supply District
- A PSEG Long Island electrical service area
- National Grid natural gas service area
- The vast majority of the subject property is within the Federal Emergency Management Agency (FEMA) Flood Hazard Zone "X", Area of Minimal Flood Hazard, which is described by FEMA as an unmapped upland area that is outside/elevated above any of its Special Flood Hazard Areas. However, a very small area (approximately 1,830 SF currently used by Southampton Masonry) on the southeastern portion of the site is within the FEMA Zone X 0.2 percent annual flood chance hazard area, or the 500 year flood plain. This 0.2 percent flood hazard area is described by FEMA as areas of one percent annual chance of flooding with average depths of less than one foot or with drainage areas less than one mile, and areas protected by levees from 1 percent annual change flood hazard areas.

The project site is not within the Pine Barrens, or a designated Long Island Special Groundwater Protection Areas (SGPA), or any Town or State designated overlay districts or Critical Environmental Areas (CEAs). However, the subject property is located immediately adjacent to the South Fork SGPA and an East Hampton designated Water Recharge Overlay District CEA. In general, there are no wetlands located on the subject site and no part of the subject parcel is

located within a local, regional, state or federal wetland jurisdiction area. Review of the NYSDE freshwater wetlands maps finds that there are no NYSDEC regulated freshwater wetlands located on the subject site and no part of the subject parcel is located within the NYSDEC's freshwater wetland jurisdiction. In addition, there are no other Town designated or protected natural features located on the subject site other than the sole source aquifer which applies to all of Long Island and is extensively discussed in the appropriate sections of this DEIS.

1.3. Project Design and Layout

The Applicant, Wainscott Commercial Center LLC, seeks subdivision approval to create 50 CI zoned lots at the 70.51± acre former sand and gravel mine property. Once the lots are reconfigured by the proposed subdivision, the ultimate use and redevelopment of each lot will be subject to site plan approval and, in certain cases, special permit review and approval by the Planning Board, as well as review and approval of advanced wastewater treatment systems (Low Nitrogen Sanitary Systems) by the SCDHS. Additionally, future development at each lot will require architectural review and approval from the Town's Architectural Review Board.

Through the subdivision, buffer areas will be established adjacent to residential areas located west and east of the subject property and an internal roadway system will be constructed throughout the subject property. Additional infrastructure improvements will include the installation of underground utilities, including public water and natural gas lines.

1.3.1 Overall Site Layout

The proposed 50 lots will range in size from 40,000 SF to 260,732 SF. Of these lots, the two southernmost lots, Lot 21 (north of Montauk Highway) and Lot 22 (abutting Old Montauk Highway), will be the largest in size, such that Lot 21 would total 180,364± SF or 4.14± acres and Lot 22 will total 260,732± SF or 5.99± acres. As depicted on the **Preliminary Site Plans** (see **Appendix A-4**), the existing ready mix plant on Lot 21 will remain; however, two of three existing storage buildings will be removed. Lot 22 will continue as a masonry and tile supply yard with a one/two-story building containing a tile showroom and offices. Specific details of development at the remaining 48 lots are unknown at this time as the future development and use of these sites will be based on market conditions. It is anticipated that the buildout of the site will occur over a number of years or possibly decades.

Access to the subject property is provided at an existing driveway on Old Montauk Highway, an existing access point on Georgica Drive and a new access points on Wainscott Northwest Road and Daniels Hole Road. An internal roadway network will be installed throughout the overall site to provide access and circulation to each lot, as further discussed below. As the exact nature of development at each lot is presently unknown (aside from Lots 21 and 22), specific parking areas have not yet been determined; however, the Preliminary Site Plans illustrate the intent with respect to the placement of individual site access (proposed as common access between 2 lots to minimize disturbance and curb cuts), parking (pursuant to code requirements) and drainage (in the form of green infrastructure based on bio-detention areas).

All development of the vacant lots created by the subdivision will conform to the current CI zoning district and all other applicable New York State, Suffolk County and local regulations, including Article 6 of the Suffolk County Sanitary Code (SCSC). As noted previously, Low Nitrogen Sanitary Systems are proposed for each newly developed lot. Proposed internal water mains will connect to individual lots at locations to be coordinated with the Suffolk County Water Authority (SCWA) and the newly created Wainscott Water Supply District. Fire hydrants will be placed throughout the subject project and will connect to the internal mains. Underground internal electric and natural gas line locations will be coordinated with PSEG Long Island and National Grid, respectively.

A total estimated buildout is provided for the purpose of evaluating potential environmental impacts. A range of future building sizes is estimated based on the current CI zoning requirements and density limitations based on Suffolk County Groundwater Management Zone V assuming on-site wastewater treatment systems and no sewage treatment plant.[2] These estimates reflect the effective reduction of the currently permitted 50 percent building coverage in the CI zone to a conservative estimate of 18.75 percent building coverage at each lot to include consideration of feasible development based on required parking and sanitary density limitations and related, applicable environmental/use factors. Assuming the conservative coverage estimate of approximately 18.75 percent, each of the 41 proposed 40,000 SF lots could yield a maximum commercial building of 7,500 SF for a total maximum building coverage of 307,500 SF (based on a calculation of 1,640,000 SF [41 proposed 40,000SF lots] multiplied by 18.75 percent). The remaining lot sizes and potential building coverage on each lot (utilizing the same calculations) are as follows:

- Lot 1 with a proposed 54,731 SF lot size could yield a maximum building of 10,262 SF;
- Lot 11 with a proposed 40,341 SF lot size could yield a maximum building of 7,564 SF;
- Lot 20 with a proposed 47,384 SF lot size could yield a maximum building of 8,885 SF;
- Lot 23 with a proposed 51,884 SF lot size could yield a maximum building of 9,728 SF;
- Lot 35 with a proposed 46,890 SF lot size could yield a maximum building of 8,792 SF;
- Lot 36 with a proposed 45,618 SF lot size could yield a maximum building of 8,553 SF; and
- Lot 50 with a proposed 80,062 SF lot size could yield a maximum building of 15,012SF.

Based on these calculations, the total potential building coverage at the overall subject property could be approximately 376,296 SF. This represents a reasonable full yield of the site that is the subject of environmental analysis in this DEIS.

[2] A sewage treatment plant (STP) to serve the subdivision is impractical as the development of individual lots is expected to occur over a long period of time and would not warrant or justify the expense or construction of an STP for intermittent, gradual flow associated with this long-term development. However, Low Nitrogen Sanitary Systems are proposed for each individual lot (other than Lot 21 and 22 which will continue to be serviced by existing individual sceptic systems).

Since the existing structures and uses on Lots 21 and 22 are proposed to remain, the density of these sites was determined based on a survey prepared by Fox Land Surveying in 2007. According to the survey, Southampton Masonry utilizes two buildings: a one and two-story tile showroom with a partial second story currently for office space (approximately 6,790 SF) and a one-story cinderblock manufacturing showroom (approximately 9,058 SF). The Southampton Masonry portion of the subject property also contains a one-story frame building utilized as storage space for current operations (approximately 2,100 SF). The Suffolk Cement portion of the property contains a one and two-story office building (approximately 1,452 SF), a one-story masonry storage building (approximately 657 SF), one metal storage building on the central portion of the property (approximately 3,232 SF), silos and hoppers. It is anticipated that the aforementioned structures on both the Southampton Masonry supply yard and the Suffolk Cement ready mix plant would remain.

Typical plot plans and associated landscaping plans were prepared as a basis of analysis as part of this DEIS and are considered for the environmental analysis (see **Appendix A-5**). The individual site development concept is to have common driveways between lots, parking in the front of each lot, and loading zones and outdoor storage areas situated immediately adjacent to proposed buildings along the side yards. Rain gardens/open space (approximately 16 percent of each lot) will be established at the rear of each individual site. It is anticipated that rain gardens at lots adjacent to residential neighborhoods (Lots 9 and Lots 23 through 42) will consist of perennials and small shrubs, while rain gardens at lots adjacent to the LIRR (Lots 1 through 8) will contain trees and scrubs to screen internal views of the subject property from commuters; all other rain gardens will contain a combination thereof.

1.3.2 Grading and Drainage

Construction of the proposed internal roads (as further discussed in **Section 1.3.3**) will include grading, paving and finishing. The existing side slopes of the former mine will remain and will continue to be stabilized with existing groundcover vegetation. Internal areas of the subject site may contain localized man-made soil areas with slopes equal to and greater than 15 percent. Grading will be required to level the site for future commercial or industrial businesses. All material on the site will be reincorporated into the grading plan to level the subject property for development. The project will provide on-site drainage collection using a system of storm drains throughout the proposed roadways to capture the runoff from a five-inch rainstorm as required by the Town of East Hampton Town Code ("Town Code") and the Town Stormwater Management Officer. Installation of storm drains and grading activities would control and direct stormwater to on-site drainage systems to minimize potential impacts associated with runoff. Final Grading and Drainage Plans and Erosion and Sedimentation Control plans will be prepared as part of the site plan application process.

The individual site development concept is to have common driveways to access building and parking, with surface bio-retention areas (rain gardens) for additional stormwater collection and treatment and open space to the rear of each individual site. It is anticipated that rain gardens at lots adjacent to residential neighborhoods would consist of perennials and small shrubs, while rain gardens at lots adjacent to the LIRR would contain trees and scrubs to screen

internal views of the subject property from commuters; all other rain gardens would contain a combination thereof.

This will serve as an additional stormwater treatment method and will ensure water quality protection through design elements consistent with current and innovative green infrastructure technologies.

1.3.3 Access, Road System and Parking

Access to the subject site is currently from Old Montauk Highway to the south and Georgica Drive to the west. Subsequent to the proposed subdivision and infrastructure improvements, access would continue to be provided from both locations. Once internal roads have been installed, access to the site would also be provided on the northwest corner of the site from Wainscott Road Northwest and from the northeast corner of the site from Daniels Hole Road. As such, access to the site would be provided from four locations, whereas existing access to the site is provided from Old Montauk Highway and access on the northern end of Georgica Drive. It should be noted that any vehicle exiting the subject property from the northeast of site will not be permitted to turn right onto Hedges Lane (signage will be provided).

The proposed internal roadway system would contain four roads that would connect throughout the overall site. As illustrated on the **Preliminary Site Plans,** these roads would be Wainscott Commercial Drive West, Wainscott Commercial Drive East, Di Gate Drive and Georgica Drive. All roads will be compliant with the required fire code regulations and standards for firefighting equipment and emergency service vehicles and applicable Town design specifications. Full vehicular circulation will be provided throughout the overall subject property.

Designated parking spaces will be created on Lots 21 and 22 subsequent to receipt of subdivision and site plan approval for these two lots and installation of infrastructure improvements. The specific parking needs of future uses will be met pursuant to code requirements as the 48 additional individual sites are developed. Future uses at the site will comply with the applicable off-street parking and loading requirements set forth in §255-11-45 of the Town Code, which will be reviewed during site specific site plan approval processes.

1.3.4 Site Landscaping and Vegetative Screening

Vegetated buffers will be established along the eastern and western property boundaries to enhance the extensive existing vegetation on the site and improve aesthetics, buffer and habitat in the transition between the site operations and residences to the east and west. These buffers total 7.6± acres and will consist of both natural wooded vegetation to be retained, and landscaped vegetation to be installed. Existing wooded vegetation along the eastern property boundary will be retained and utilized as a 2.51± acre buffer to screen internal views of the site from the residences along Hedges Lane. The other buffer along the western property boundary will consist of 5.09± acres of natural wooded area that will screen views of the site from residences west of Wainscott Northwest Road. Additionally, the Applicant intends to install new landscaping consisting of lawn areas and street trees along the southern property

boundary (along Old Montauk Highway) to provide additional screening of internal operations.

Rain gardens/bio-detention areas will be established at the rear of each lot. Each rain garden will total approximately 16 percent of each lot area and will consist of native plantings. The applicant commits to avoiding fertilized turf for lawn areas and instead will utilize low mow grass for lawn areas (i.e., blend of fescue grasses) at each lot. In addition, low mow grass and street trees will be installed along the proposed internal roadway systems throughout the subject property as well as undeveloped lots to stabilize the site until individual lots are developed. It is anticipated that rain gardens at lots adjacent to residential neighborhoods (Lots 9 and Lots 23 through 42) will consist of perennials and small shrubs, while rain gardens at lots adjacent to the LIRR (Lots 1 through 8) will contain trees and scrubs to screen internal views of the subject property from commuters; all other rain gardens will contain a combination thereof.

Outdoor lighting and signage will be provided at each lot on a case-by-case basis. Lighting will be consistent with Town standards and specifications including installation of dark-sky compliant lighting that is shielded and directed downward to mitigate potential impacts. Traffic signage will ensure traffic safety, and signs for future businesses will be installed at each lot once tenants are determined. Signage will be located and designed in accordance with Chapter 255 of the Town Code.

1.3.5 Sanitary Disposal and Water Supply

The subject property is not located within a sewer district. Sewage disposal for the existing masonry and tile supply yard is currently handled via individual conventional on-site sanitary systems. As noted above, the subject property is in the SCWA Distribution Area 23, which currently serves the Southampton Masonry yard. Existing SCWA watermains within proximity to the subject property include a 12 inch/16 inch water main beneath Montauk Highway/Old Montauk Highway, a 16 inch water main beneath Wainscott Northwest Road and a 12 inch/16 inch water main beneath Hedges Lane. These existing water mains have been supplemented by the recently completed Wainscott Water Supply District which has extended public water mains to the entire portion of the Hamlet of Wainscott located south of the LIRR right-a-way (map of Wainscott Water Supply District is attached as **Appendix C**).

The proposed subdivision will only establish the roads and drainage recharge system for road installation and therefore will not generate sanitary waste or require potable water in and of itself. However, over time and based on market conditions, individual lots will be proposed for development. The proposed lots will generate wastewater and will require potable water as they are developed. The schedule for development and the exact uses are not known; however, all development will conform to the use provisions of the CI zoning district and will be subject to site plan review and in some cases special permit review by the Town Planning Board. As a result, the exact sanitary waste generation and potable water demand cannot be determined at this time as the exact uses will only be known as individual site development occurs. The maximum allowable density under Article 6 of the SCSC is provided below, and over time, development will not exceed this allowable flow.

For the purposes of evaluating potential environmental impacts in this DEIS, a potential yield was estimated to project the magnitude of development that could occur at the subject property over several years and possibly decades. This potential yield was prepared by the Applicant and NP&V to determine maximum potential building coverage at full buildout of the subject property. Assuming the conservative coverage estimate of approximately 18.75 percent for potential building coverage at each lot, a total of 376,296± SF or 8.64± acres of building coverage could occur at the 70.51± acre site.

Based on the SCDHS design flow factors,[3] the population density equivalent for construction projects other than single-family residences located within GMZ III, V, or VI is as follows:

Subject Property (70.51 acres) x 300 gallons per day (gpd)/0.04[4] gpd = 528,832.5± gpd

Therefore, based on the SCDHS design flow standards and the size of the subject property, the population density equivalent is 528,832.5± gpd (also referred to as "allowable flow"). This calculation is used to determine whether a project could employ on-site septic systems or if it would require additional sewage treatment infrastructure. If the Proposed Action's projected sewage generation exceeds this population density equivalent, sanitary waste would need to be treated by a sewage treatment plant (STP). The Applicant does not propose an STP as this would be impractical due to the expected gradual development of the site, therefore, sanitary flow will not exceed this allowable flow and all wastewater will be treated using Low Nitrogen Sanitary Systems.

The projected sanitary waste resulting from future development at the subject property is based on the SCDHS flow rates, which assign a hydraulic load factor of 0.04 gpd per square foot for general industrial uses (this includes up to 15 percent related office space). Based on a potential 376,296± SF of building coverage and a factor of 0.04 gpd, a full buildout of the subject property could have a sanitary flow of 15,052± gpd.

Additionally, sanitary wastewater generated by Southampton Masonry and Suffolk Cement was calculated based existing structures depicted on Fox Land's 2007 survey. Utilizing a hydraulic load factor of 0.04 gpd per square foot for general industrial uses and a hydraulic load factor of 0.06 gpd per square foot for non-medical office space (office space above the Southampton Masonry tile showroom), existing sanitary flow for both uses to remain is 964± gpd. As such, with full buildout and continuation of both Southampton Masonry and Suffolk Cement, the subject property could have a total sanitary flow of 16,016± gpd. Based on the SCDHS design flow standards and the size of the subject property, the allowable flow is 528,832.5± gpd. Therefore, the potential sanitary flow at the subject property would be well below (a mere 3.02 percent of allowable flow) the population density equivalent for construction projects other

[3] Suffolk County Department of Health Services Division of Environmental Quality. *Standards for Approval of Plans and Construction for Sewage Disposal Systems for Other Than Single Family Residences.* December 29, 2017.

[4] Suffolk County Department of Health Services. *Standards for Approval of Plans and Construction for Sewage Disposal Systems for Other Than Single Family Residences.* Table 1, Project Density Loading Rates & Design Sewage Flow Rates. Revised December 1, 2009.

than single-family residences; and the proposed project could utilize on-site septic systems such that a sewage treatment plant would not be required to treat potential wastewater generated by future development.

As the subject property is within the Suffolk County GMZ V, all future uses will be required to conform to Article 6 of the SCSC. Individual subsurface sewage disposal systems will be installed at each lot. It is proposed that I/A OWTS will be installed per Article 19 of the Suffolk County Sanitary Code, in conformance with the Town Code's Low Nitrogen Sanitary System requirements. When properly designed, installed and maintained, these systems will significantly reduce nitrogen and, in many cases, reduce or eliminate levels of other contaminants of concerns (e.g., pharmaceuticals, personal care products, and volatile organic compounds).[5] Currently, approved systems are designed to reduce total nitrogen in treated effluent to a maximum of 19 (mg/l) which is the SCDHS standard for approval of these systems. The use of I/A OWTS/Low Nitrogen Sanitary System technologies at the subject property will reduce total nitrogen in treated effluent to less than 19 mg/l and possibly lower as many existing approved systems are resulting in total nitrogen in effluent of well under the standard. In addition, since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced.

Potential potable water demand resulting from full buildout of the subject property and continuation of the Suffolk Cement and Southampton Masonry uses is similarly estimated to be 16,016± gpd. However, this does not account for potential landscaped irrigation at each lot which will be minimized by use of rain gardens and low mow fescue with no fertilizer dependent vegetation.

As part of the proposed infrastructure improvements, water lines will be extended throughout the subject property to provide public water to each lot. SCWA will continue to serve the Southampton Masonry and future buildings at each lot by on-site water mains connecting to water mains beneath surrounding roadways (i.e., Old Montauk Highway, Wainscott Northwest Road and Hedges Lane), to be determined by SCWA.

1.4. Construction Schedule and Operations

It is anticipated that subdivision of the subject property will take approximately six to nine months to complete following receipt of all regulatory approvals. Following the subdivision, installation of an internal roadway system and underground utilities will occur. Construction of the proposed internal roadway system will be completed in one phase over a period of approximately 12-18 months. This includes the creation of new access points to the subject property from via proposed curb cuts along Wainscott Northwest Road and Daniel's Hole Road. Hours of construction will comply with applicable Town regulations such that construction

[5] Suffolk County Department of Health Services. *Suffolk County Sanitary Code – Article 19*. 2016.

activities will occur between the hours of 7:00 a.m. and 8:30 p.m., in accordance with Chapter 185 of the Town Code.

Connection to the existing SCWA water distribution system is expected to be relatively easy, as mains are currently present within the roadways surrounding the subject property (i.e., Wainscott Northwest Road, Montauk Highway/Old Montauk Highway and Hedges Lane) and will only require site service connections and extension of water distribution lines to the site. Existing natural gas line locations will be confirmed with National Grid as the permitting process moves forward. It is anticipated that connecting to existing mains beneath nearby roadways and extension of distribution lines to the site can easily be accomplished. The existing ready mix plant and mason and tile supply yard will remain operational while these installation activities occur.

All construction trucks and equipment, as well as material storage and staging areas will use the existing site entrance on Old Montauk Highway, and all equipment, materials and trucks will be stored and staged within the site. It is noted that during prior mining operations, and based on current use of the site, trucks have been and are a routine part of the existing vehicular activity on and in the vicinity of the site. Heavy construction vehicles and equipment can be parked on-site for extended periods of time with relatively limited need for excessive on and off-site dump truck traffic. Short term construction impacts are not expected to be significant given the erosion control measures, presence of a water truck to wet dry soils, short-term duration of the proposed infrastructure improvements, activities to occur during normal daytime hours, perimeter buffering from existing homes in the area, and the review, approval, construction management and development oversight that will occur with respect to this project.

All drainage systems will comply with requirements under NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP 0-15-002 or "General Permit") and Chapters 216 and 220, Article XV of the Town Code. Under these requirements, a site-specific Storm Water Pollution Prevention Plan (SWPPP) that meets criteria set forth by the NYSDEC must be prepared and submitted to the Town for review and approval. The SWPPP will include details of the erosion controls to be employed during construction. The proposed dimensions, material specifications, and installation details for all erosion and sediment control practices are provided on the final Erosion and Sediment Control Plans, which will be subject to Town review and approval. The SWPPP will include practices consistent with the NYS Standards and Specifications for Erosion and Sediment Control. In addition, the Proposed Action will conform to the standards and specifications included in the New York State Stormwater Management Design Manual (as required by the Town Code), which provides criteria on minimizing erosion and sediment impacts from construction activity involving soil disturbance. Best management practices will be incorporated into the final Erosion and Sediment Control Plans, which will assist in ensuring that the Proposed Action will minimize potential adverse impacts related to erosion.

Additional development will occur on a lot-by-lot basis. While the specific details and timing of future developments are unknown at this time, it is anticipated that buildout of the site will occur over a number of years and possibly decades.

1.5. Involved Agencies and Required Permits, Approvals and Reviews

All site development submissions are subject to review under SEQRA. For the Proposed Action, the review begins with the submission of the subdivision application to the Town Planning Board. Based on the information presented in the documents comprising that application, the Town Planning Board, as Lead Agency under SEQRA, adopted a Positive Declaration and has required the preparation of this DEIS to evaluate the potential environmental impacts of the Proposed Action. Subdivision review and subsequent site plan approvals will then be required from the Planning Board.

This DEIS complies with SEQRA processing requirements as administered by the East Hampton Planning Board which is Lead Agency for this environmental review. The document has been prepared to take a "hard look" at the Proposed Action and address potential environmental impacts pursuant to the Final Scope. The DEIS is intended to provide the East Hampton Planning Board with information to assist in reaching informed decisions on the Subdivision and Site Plan Approval for Suffolk Cement (Lot 21) and Southampton Masonry (Lot 22).

Table 1-1 is a list of the permits, approvals and agency reviews anticipated to be necessary for the proposed project.

TABLE 1-1
PERMITS, APPROVALS AND AGENCY REVIEWS REQUIRED

Applicable Board/Agency	Permit/Approval/Review Type
East Hampton Town Planning Board	Subdivision and Site Plan approval
East Hampton Town Architectural Review Board	Signage approval
Suffolk County Department of Health Services	Wastewater disposal and water supply approval
New York State Department of Transportation	Curb cut approval (intersections on NYS Route 27 [Montauk Highway])

2.0 NATURAL ENVIRONMENTAL RESOURCES

2.1 Topography

2.1.1 Existing Conditions

Topography

The subject site has been in long-term use as a sand mine and, therefore, the topography of the site has been substantially altered. Along the perimeter of the property, the elevation is higher ranging from approximately 30 feet above mean sea level (amsl) to 35 feet amsl and decreases to the south and interior of the site to elevations under 20 feet amsl. Topography at the subject site is shown in **Figure 2-1**. Throughout the central portion of the site, there are numerous soil mounds which will be used to further grade the site. Based on the foregoing, the overall site contains gentle and moderately sloping topography on the interior, and side wall slopes from past mining on portions of the site perimeter. However, due to the historic use of the site, none of the existing slopes are natural undisturbed soils, and some of these slopes are greater than 15 percent as a result of sand mining operations. As shown in **Table 2-1**, slopes on the subject property are as follows.

TABLE 2-1
EXISTING SLOPE CONDITIONS

Slope Category	Acres	Approximate Percentage of Site
0-10%	56.16±	80%
10-15%	3.02±	4%
15-25%	5.00±	7%
>25%	6.33±	9%

Alpha Geoscience (Alpha) conducted several investigations at the subject property and prepared two reports (a Hydrogeologic Investigation dated November 2018 and an Environmental Assessment dated January 2019) to determine predevelopment conditions and address potential environmental impacts as a result of the Proposed Action. Existing and new monitoring wells were utilized to collect groundwater data throughout the subject property (see **Figure 2-2** for locations of monitoring wells). Alpha utilized a survey prepared by Fox Land Surveying to determine the elevation of the ground surface and elevation of the top of the PVC casing for each well. According to Alpha's reports, the site lies in a depression relative to the surrounding area and only a small portion of the southeast corner is relatively level and close in elevation to adjacent properties. Alpha also noted that the surface of the bottom of the

depression is moderately level apart from scattered material piles throughout the site. **Table 2-2** depicts the ground surface elevation at each new monitoring well installed in 2018 and two pre-existing wells (MW-6A and MW-8).

TABLE 2-2
GROUND SURFACE ELEVATION

Well	Ground Surface Elevation (amsl)
MW-1	12.09
MW-2	16.08
MW-3	16.35
MW-4	15.63
MW-5	19.35
MW-6	16.07
MW-6A	15.48
MW-7	15.28
MW-8	20.80

As the existing elevations vary throughout the site due to past and present operations, grading of land will be necessary for future commercial/industrial tenants, subsequent to subdivision of the subject property.

2.1.2 Potential Impacts

Topography

Existing site topography will be altered as a result of the Proposed Action. Specifically, existing topography will be graded, paved and finished to create roads and drainage features, as well as achieve suitable grades for future development at each lot. As shown in **Figure 2-1,** the majority of the subject property has slopes in the range of 0 to 10 percent**.** Internal areas of the subject site may contain localized man-made material pile areas with slopes equal to and greater than 15 percent. The existing side slopes of the former mine will remain and will be further stabilized with groundcover vegetation. Grading will be required to level the site for future commercial or industrial businesses. All material on the site will be reincorporated into the grading plan to level the subject property for development. As a result, the site development plan will achieve “balanced” site conditions to the maximum extent practicable.

It is expected that on-site material will be used to raise the grade in some areas, and existing grades will be maintained where possible.

Additionally, excavations for the installation of drainage structures and underground utilities will be necessary and will require on-site use of backfill material and regrading to reincorporate soil into the site. Steep slopes will be present along the eastern and western property boundaries, where undisturbed vegetated buffers are proposed to remain. Future developable areas at each lot will not include these steep slopes. The overall grading of the property is expected to result in a well graded cut and fill soil characteristic that will provide a suitable and stable soil surface for the future uses.

Based on the **Preliminary Site Plan** an estimated 7.61± acres of undisturbed vegetated buffers will be left along the eastern and western property boundaries. A total of 3.6± acres will be paved for roads, 3.3± acres of impervious surfaces on Lots 21 and 22 will remain and 40.1± acres will be divided between the proposed 48 lots.

Additionally, the individual site development concept is to have 6,000 SF (or larger) surface bio-retention areas for stormwater treatment and open space to the rear of each individual site. The post-construction grade will be relatively flat with high points of the subject property being along the eastern and western property lines, with an average site elevation of approximately 18 feet. The proposed grading program will be primarily directed toward leveling the subject property and directing stormwater runoff to the proposed drainage collection and recharge systems consisting of an interconnected system of catch basins, piping and leaching pools. Individual site development may require minor export of material to accommodate the bio-retention areas and any subsurface installations which would generate excess material. This will be on a site-by-site basis and will be subject to individual site plan preparation and construction.

All construction trucks and equipment, as well as material storage and staging areas will use the existing site entrance on Old Montauk Highway. Truck traffic related to construction will be temporary and intermittent. It is noted that during mining operations, and based on current use of the site, trucks have been and are a routine part of the existing vehicular activity on and in the vicinity of the site. Significant soil import and export is not anticipated to be necessary due the utilization of excess materials for grade adjustments and due to the large size of the property which can accommodate excess soil. The soils are demonstrated to be of a suitable quality for drainage and construction. Heavy construction vehicles and equipment can be parked on-site for extended periods of time with relatively limited need for excessive on and off-site dump truck traffic.

Final Grading and Drainage Plans and Erosion and Sedimentation Control plans will be prepared as part of the site plan application process. These plans will provide refined details regarding overall site grading and drainage and erosion control. Site plans will require Town planning and engineering reviews and Planning Board approval prior to implementation. All grading and the drainage systems will conform to applicable Town standards and regulations. Grading activity will be conducted internally within the site and will not impact adjacent properties, especially residentially developed land as existing wooded area along the property's eastern and western

perimeters will be retained. In addition, construction management techniques outlined in **Section 4.5** of this DEIS will ensure that sedimentation and erosion control measures are implemented.

An additional safeguard is achieved through the NYSDEC State Pollutant Discharge Elimination System (SPDES) review of stormwater control measures consistent with Phase 2 stormwater permitting for construction sites in excess of 1-acre (SPDES GP-0-15-002). Under this program, a Notice of Intent (NOI) must be filed with the NYSDEC 60-days prior to commencement of construction, and a site-specific Stormwater Pollution Prevention Plan (SWPPP) must be maintained on site. In addition, a copy of the final NOI, SWPPP and Erosion and Sediment Control Plan will be submitted to the Town of East Hampton Engineering Department simultaneously with the NYSDEC submission. This process, as well as construction and operation of the proposed project are discussed in **Section 1.4**. Given the design of the project which balances cut and fill, provides erosion control measures, and the review and approval process, no significant adverse long-term impacts are expected with respect to topography. Short term impacts may occur; however, these are also minimized through project design and construction oversight through Town and SWPPP requirements. Short term impacts may include dust, noise, truck activity on roads and disturbance in the area**,** and all equipment, materials and trucks will be stored and staged within the site. Short term construction impacts are not expected to be significant given the erosion control measures, presence of a water truck to wet dry soils, short-term duration of the proposed project, activities to occur during normal daytime hours, perimeter buffering from existing homes in the area, and the review, approval, construction management and development oversight that will occur with respect to this project.

There are no unique geomorphic features on-site and a variety of stormwater, erosion and sedimentation controls will be implemented to address the topographic concerns identified. The risk of soil erosion, based on soil descriptions from the Suffolk County Soil Survey, suggest only slight erosion potential except a slight-to-moderate potential in the more steeply sloping areas along the northern, eastern and western property boundaries (see **Section 2.2.1** and **Table 2-4** below). Grading, installation of silt fencing, reseeding, dust control and other erosion controls will be implemented during clearing, grading and construction to prevent or reduce any erosion concerns. Based on the assessment herein and proposed mitigation measures outlined below, no significant adverse topographic impacts are expected as a result of the proposed project.

2.1.3 Proposed Mitigation

The following mitigation measures are planned for the construction aspects of the project.

- Site grading operations will be undertaken in a manner to promote the incorporation of excavated material and excess materials from steep slopes into the project site.
- A SWPPP, including a detailed Final Erosion and Sediment Control Plan, will be prepared as part of the site plan submittal. These plans will assist in the management of stormwater generated on the site during construction, and for post-construction

stormwater management. The Planning Board and Town Engineer will provide independent review of the plans and must approve the plans prior to them being implemented.

- Equipment involved in grading will be routed and parked within the site in proximity to the grading area, to minimize the amount of truck activity, thereby reducing the potential for airborne dust.
- Development areas will be permanently stabilized, and slopes throughout the interior of the subject property will be 1:3 or less to minimize erosion.

2.2 Surface and Subsurface Soils

2.2.1 Existing Conditions

Soils

According to the *Soil Survey of Suffolk County, New York*[6] (*Soil Survey*) soils are classified by soil characteristics, depositional histories and other factors, into soil associations, which are in turn grouped into soil series. The *Soil Survey* provides complete mapping, classification, and descriptions of soils found in Suffolk County. An understanding of soil characteristics is important in land development and environmental planning as it aids in determining vegetation type, slope, drainage characteristics, engineering properties, past disturbance, and land use limitations. These descriptions are general, however, and soil characteristics, particularly those of glacial origin, can vary greatly from location to location. The slope classifications noted in this subsection are generalized based upon regional soil types.

According to the USDA's Natural Resources Conservation Service (NRCS) Web Soil Survey, the predominant soil on this project site is gravel pits (Gp), which accounts for nearly 50 percent of the overall site (greater than 35 acres). In addition, the subject property is comprised of Carver and Plymouth sands of varying slopes (CpA and CpC), Plymouth loamy sand (PlA) and cut and fill land (CuB). The acreages and percentages of these soils at the subject property are presented in **Table 2-3**.

TABLE 2-3
EXISTING SOILS

Soil Type	Acres	Percentage of Site
Carver and Plymouth sands, 0-3% slopes (CpA)	13.87±	19.7%
Carver and Plymouth sands,	14.13±	20%

[6] Warner et al. *Soil Survey of Suffolk County, New York.* United States Department of Agriculture and Cornell University Agricultural Experiment Station. April 1975.

3-15% slopes (CpC)		
Cut and fill land, gently sloping (CuB)	3.45±	4.9%
Gravel pits (Gp)	35.11±	49.8%
Plymouth loamy sand, 0-3% slopes (PlA)	3.95±	5.6%

The approximate locations and extent of the aforementioned soils are depicted in **Figure 2-3**. The Carver Series and the Plymouth Series both consist of deep excessively drainage, coarse textured soils. Drainage statuses for Gravel Pits and Cut and Fill land are not defined by the USDA. The characteristics and properties of the five soil mapping units identified on the site are described below.

Carver and Plymouth sands, 0 to 3 percent slopes (CpA) – This soil series is generally found on outwash plains, as well as on some flatter hilltops and intervening draws on moraines. A small portion of this unit is slightly undulating. CpA soils have a slight potential for erosion and are droughty with low natural fertility. These soils are not well suited for crops grown in Suffolk County and are predominantly in woodland or in brush. This soil type is found on the northern portion and central portions of the subject property and along the eastern property line.

Carver and Plymouth sands, 3 to 15 percent slopes (CpC) – This mapping unit is mainly on rolling moraines but are also found on the side slopes of many drainage channels on the outwash plains. On the outwash plain, this soil type is in long, narrow strips parallel to drainageways. Generally included in this mapping unit are areas of Plymouth loamy sand or loamy coarse sand that are very close to sand in texture. Small areas of this soil on moraines contain as much as 25 percent gravel, particularly on the crests of low ridges. In the bottom of many closed depressions, this soil has siltier accumulations from adjoining hillsides and in some places silty lenses are deep in the substratum. The soil erosion hazard is classified as slight to moderate. Additionally, these soils are low in fertility, are droughty and in some places, slope is a limitation to use. This soil type is found on the northern portion of the property, as well as along select areas of the eastern and western property boundaries.

Cut and Fill land, gently sloping (CuB) – Cut and fill land is comprised of areas that have been altered during grading operations for projects such as housing developments, shopping centers and similar non-agricultural uses. Areas of this mapping unit contain deep cuts in or near the sandy substratum of the soil or sandy fills of 28 inches or more. Soil material that remains after grading activities has low available moisture capacity, is droughty and has a low to very natural fertility. These areas have severe limitations in establishing and maintaining lawns and landscaping.

This mapping unit is only found on the southern portion of the subject property where existing buildings and parking areas are located.

Gravel Pits (Gp) – Gravel Pits are open excavations for mining sand and gravel. The pits range in depth from 8 feet or 10 feet to more than 100 feet. The bottoms of the pits are level and the sides are generally left vertical. Most of these areas are in a cover of native vegetation. Capability units have not been assigned for Gravel Pits. The central portions of the subject property are predominantly comprised of Gravel Pits.

Plymouth loamy sand, 0 to 3 percent slopes (PlA) – Soil series consisting of deep, excessively drained, coarse-textured soils that form a mantle of loamy sand or sand over thick layers of stratified coarse sand and gravel. These soils are mainly found on outwash plains located south of the Ronkonkoma moraine but can also be found on flat hilltops and in drainage-ways on morainic deposits. The areas are generally level, but some areas have undulating topography. The soil erosion hazard is classified as "slight." This soil unit is found on the northwestern corner of the subject property and on the northeastern portion of the site.

Table 2-4 presents a list of the soil features that may affect development associated with the proposed project, as well as the soil limitations that may constrain development to a very small extent. It should be noted that soil features affecting foundations for Cut and Fill land is not included in the table below, as the Suffolk County Soil Survey determined that characteristics are too variable to estimate soil feature impacts and limitations. It should also be noted that the Gravel Pits mapping unit is not included in **Table 2-4**, as the Suffolk County Soil Survey notes that this unit is comprised of two or more kinds of soil and is too variable to provide interpretations of same. The Soil Survey indicates that Cut and Fill land, the Carver and Plymouth sands and Plymouth loamy sands are generally supportive of the Proposed Action and pose only some limitations for such development. However, all soil types impose significant limitations on their use for lawns and landscaping at the subject property and require improvements to support same.

TABLE 2-4
SOIL LIMITATIONS

Soil Features Affecting:	Carver and Plymouth sands, 0 to 3% slopes (CpA)	Carver and Plymouth sands, 3 to 15 % slopes (CpC)	Cut and Fill land, gently sloping (CuB)	Plymouth loamy sand, 0 to 3% slopes (PlA)
Foundations for low buildings	Low compressibility	Low compressibility	--	Low compressibility
Irrigation	Very low available moisture, rapid water intake; moderate and	Very low available moisture, rapid water intake; moderate and	--	Very low available moisture, rapid water intake

	moderately steep to steep slopes	moderately steep to steep slopes		
Limitations For:				
Sewage disposal fields	Slight[1]	Slight, to moderate: slopes in places[1]	Slight	Slight, permeable soils
Streets and parking lots	Slight	Moderate to severe slopes	Moderate[2]	Slight
Lawns and landscaping	Severe, sandy surface layer	Severe, sandy surface layer	Severe, sandy surface layer	Severe, sandy surface layer
Drainage	Excessively drained	Excessively drained	N/A	Excessively drained
Erosion hazard	Slight	Slight to moderate	--	Slight

[1]Possible pollution hazard to lakes, springs, or shallow wells in these rapidly permeable soils.
[2]Slight for Town or County roads.

Due to the variability of the aforementioned mapping units and potential for actual on-site soils to differ from the Suffolk County Soil Survey, on-site investigations were performed by East Coast Geoservices, LLC (ECG) on October 13, 2017. A copy of the soil boring results is included in **Appendix D-1**.

ECG drilled four borings to depths of 8 feet below grade surface (bgs), as depicted in **Figure 2-4** to characterize the underlying soils. Groundwater was generally encountered in the borings at depths of between approximately 5.5 bgs and 8 bgs. The southern two borings were drilled in gravel pit locations while the northern two borings were drilled in locations consisting of unmaintained cleared land that has been taken over by successional vegetation. Overall, the borings indicate that the site consists of fill comprised of fine sand material with traces of gravel on the southern portion of the property and sand with some silt on the northern portion of the property. At boring location B-3, below brown fine sand with traces of silt from 0 feet to 4 feet bgs, brown silty sand was encountered between 4 feet bgs and 6 feet bgs, followed by brown fine sand from 6 feet bgs to 8 feet bgs (see ECG Boring Logs in **Appendix D-1**).

Hydrogeologic Investigation (November 2018)

As noted in **Section 2.1.1**, Alpha Geoscience conducted a hydrogeologic investigation (including soil investigations) of the subject property and prepared the Hydrogeologic Assessment of the Wainscott Commercial Center ("Hydrogeologic Assessment") in November 2018 to determine current predevelopment conditions and address potential environmental impacts from proposed redevelopment of the subject property (see **Appendix D-2)**. The primary objectives

of the investigation were to assess the elevation and flow direction of the water table beneath the site, evaluate groundwater quality, estimate the rate of horizontal groundwater flow across the site and determine how the water table relates to the areas surrounding the site and Georgica Pond. The secondary objectives of the Hydrogeologic Assessment were to provide data regarding soil materials at the site and depth to water across the site to aid in redevelopment.

The underlying water table aquifer and Georgica Pond are the two primary hydrogeologic features of local concern, as the aquifer is a source of potable water for the community and Georgica Pond is a prominent surface water feature in the area. As part of Alpha's investigations, soil material data at the site was collected from seven borings around the perimeter of the subject property. These borings were conducted between June 6 and June 7, 2018 and locations are represented in **Figure 2-2**. The results of Alpha's soil borings indicated that soils encountered at the seven locations consist of fill composed of coarse to find sand with some medium to fine gravel and pockets of silt near the surface at some locations (see Hydrogeologic Assessment in **Appendix D-2** for additional soil boring log data). These findings are consistent with ECG's findings in October 2017. Additionally, Alpha's soil sampling in December 2018 (as further discussed below) also confirmed that site soils consist of fill materials that sit atop fine to coarse sands of the Upper Glacial Aquifer and fill predominantly consists of fine to coarse sand and traces of gravel. Furthermore, small quantities of man-made fill material (i.e., brick, cement, concrete and wood chips) were encountered at four of the 19 soil borings in December 2018.

Additional findings from Alpha's investigations can be found in Soil and Subsurface Contamination subsection below and **Section 2.3, Water Resources**.

Subsurface Contamination

According to the NYSDEC's Spills Incidents database, a waste oil/used oil spill of approximately 75 gallons occurred at the subject property on May 31, 1989 (Spill #8902128). However, this spill was closed by the NYSDEC on March 14, 1991.

The NYSDEC Environmental Site Remediation Database and the Environmental Facilities Navigator were consulted to determine if the subject property was listed for remediation or if there are remediation sites in the surrounding area. According to both databases, the East Hampton Airport is listed as a Class 02 State Superfund Site due to the fact that soil testing at identified sites at the East Hampton Airport established the discharge of perfluorinated compounds (PFCs) into soils at the Airport and two other locations located along Industrial Road also owned by the Town.

On December 31, 2018, the NYSDEC notified the owners of the subject property that intended to investigate the subject property as a possible inactive hazardous waste disposal site. The attachments to the NYSDEC's letter indicated that it had based its decision upon downgradient groundwater sampling data in excess of the USEPA Health Advisory Level for PFOA and PFOS and documentation of possible use of Aqueous Film Forming Foam (AFFF) by a local fire

department on the property. Based upon this decision, the subject property was also listed in the NYSDEC Environmental Facilities Navigator as a potential State Superfund Site.

As discussed in the Hydrogeologic Assessment, an anecdotal report dated March 22, 2018 by the Southampton Press indicated that an emergency fire training exercise was conducted at the site in June 2000, which may have involved the use of AFFF. Alpha noted that the "soil at that location, which is near monitor wells MW-6 and MW-6A [northern property boundary], will be sampled during a proposed soil investigation." Subsequently, Alpha prepared an Environmental Assessment in January 2019 to address groundwater and surface water in response to concerns raised by the Town, which is discussed in further detail below as well as in **Section 2.3.1** below.

In the fall of 2017, NYSDEC requested that SCDHS sample drinking water near the East Hampton Airport, as the United States Environmental Protection Agency (USEPA) identified two chemicals known as PFOS (perfluorooctane sulfonate) and PFOA (perfluorooctanoic acid) as emerging contaminants, which are part of a class of chemicals known as per- and polyfluoroalkyl substances (PFAS) and have a EPA Health Advisory Level (HAL) of 70 parts per trillion (ppt). PFASs have been used in several industrial and commercial products such firefighting foam, as well as coatings that repel water, oil, stains and grease. Thus, residents of Wainscott may have been exposed to PFOS and PFOA through water or soil from industrial sources and from consumer products. As a result, SCDHS sampled private wells in Wainscott and determined that PFOS had impacted over 150 private wells south of the East Hampton Airport. SCDHS then issued a water quality advisory and further testing was conducted to determine the source of this contamination.

According to a November 2018 Site Characterization Report prepared by AECOM for NYSDEC,[7] four areas of concern at the East Hampton Airport were found with very high levels of the chemical contaminants found. The two sites with the highest concentrations of PFOS were found where plane crash response training drills were held at the airport. AECOM's subcontractor also tested over a dozen additional locations at the airport, including sites of a small plane crash at the north end of the airport and a car fire on the airport tarmac, where the firefighting foam containing the contaminants were or may have been discharged. The report recommends significant additional testing to identify the exact extent of the contamination at the four sites. Additionally, two sites on Industrial Road had concentrations of the chemicals that were more than double the EPA health threshold. These properties are located on the southern boundary of the airport property, are owned by East Hampton Town, and are leased to local police and fire departments. One site is a training facility where the fire departments stage simulated fires for training and the other site is a storage depot that the report says did not appear to have been used for drills, but may have contained firefighting foam supplies. The NYSDEC declared the East Hampton Airport and the two locations on Industrial Road owned by the Town as a Class 02 State Superfund Site, as a result of the November 2018 Site Characterization prepared by AECOM. The four distinct areas of concern and two additional

[7] AECOM. *Site Characterization Report East Hampton Airport.* Prepared for the NYSDEC Division of Environmental Remediation. November 20, 2018.

areas on Industrial Road will require additional studies to fully outline the nature and extent of contamination, which will aid in identifying further NYSDEC actions and appropriate cleanup measures. Additionally, the report recommends collection of additional soil samples to evaluate whether ongoing source of PFAS contamination to groundwater is present at the four areas of concern. The NYSDEC and the Town have publicly reported that they are negotiating the scope of the further soil and groundwater investigations required to be conducted at the East Hampton Airport and the two other Class 02 State Superfund Sites owned by the Town on Industrial Road.

Environmental Assessment (January 2019)

Alpha prepared an Environmental Assessment of the subject property in January 2019 to address the Town's concerns of existing impacts on groundwater and surface water in Georgica Pond as a result of existing conditions at the site and potential impacts associated with redevelopment of same (see **Appendix D-3)**. Specifically, there were concerns of excess metal levels detected in groundwater proximate to the subject property and the presence of PFOS and PFOA that were discovered in private wells that could travel to Georgica Pond through groundwater flow and stormwater runoff. This Environmental Assessment also addressed the fire training exercise that was conducted at the subject property in June 2000, where it was suspected that AFFF was used on the property, as reported in local newspapers. Alpha's Environmental Assessment addresses the aforementioned concerns through a review of publicly accessible historic information of the site and an investigation of groundwater and soils beneath the subject property.

In order to determine impacts to groundwater and Georgica Pond in the 2001 DEIS, the Applicant drilled eight soils borings at the subject property, installed monitoring wells at these locations, collected and analyzed samples and measured depth and elevation of the water table at the subject property. The samples were tested at an analytical laboratory to verify potable water standards, total petroleum hydrocarbons, chlorinated herbicides and organophosphorus pesticides. Lab results revealed that groundwater beneath the site did not contain any herbicides, pesticides, or hydrocarbon-related volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). However, iron and manganese were found to be above NYSDOH drinking water standards at some locations (see Table 5 in Hydrogeologic Investigation for full 1999 and 2000 lab results). These metals tend to be elevated in ambient Long Island groundwater as a result of soil constituents and the pH of precipitation in recharge. The drinking water standards are primarily for aesthetic purposes as elevated iron can cause discoloration of water.

The historic use of the subject property as a sand and gravel mine raises an issue of potential contaminates in soil and groundwater; however, the NYSDEC, the sole regulator of sand mining in New York State, has determined that the extraction of sand and gravel by mining above or in groundwater is not a source of contamination in itself, subject to proper operation of equipment in a manner that precludes release of fluids (fuel and lubrication products). Tenants and associated operations on the southern portion of the site may have increased the potential for the presence of hydrocarbons such as diesel or other petroleum compounds from: the

existing diesel maintenance facility, heating systems, pesticides and nitrates as a result of landscaping and other VOCs relating to the prior small-scale furniture repair use. Sewage disposal for the existing uses is currently accommodated via on-site individual septic systems, which contribute to nitrates in groundwater at varying concentrations depending on the age and function of systems, density of development and conformance with applicable Suffolk County Sanitary Code requirements.

Community members raised concerns for potential groundwater contamination from hexavalent chromium, 1,4-dioxane and PFAS, which are known to have potential health impacts. Hexavalent chromium and 1,4-dioxane contaminations are not linked to specific events in the area; however, a community member identified hexavalent chromium as a potential pollutant source from the ready-mix plant at the subject property (see correspondence from resident to SCDHS within the Environmental Assessment Appendices). PFAS concerns are directly associated with the presence of PFOS and PFOA in numerous private wells in the fall of 2017. As noted above, the East Hampton Airport indicated that the facility had used or stored products that contained PFOS and PFOA; thus, further investigations were warranted.

As part of the Hydrogeological Investigation, Alpha drilled a total of 19 soil borings, performed soil investigations and tested for metals in soils throughout the entire subject property on December 6 and 7, 2018. This investigation was designed to examine contamination concerns from existing tenants on the southern end of the site and the June 2000 fire training exercise.

Each soil sample collected from the 19 borings was visually inspected for contamination, checked for odors from VOCs and screened for the presence of VOCs. These samples were submitted for analysis following the NYSDEC soil cleanup policy and were collected from depths ranging from 6 feet to 8 feet bgs. Additionally, grab samples for Resource Conservation and Recovery Act (RCRA) metals analysis (eight metals plus iron and manganese)[8] were selected from soil brought to the surface at each boring which were taken from depths ranging from 0.5 feet bgs to 2 feet bgs. Samples selected for additional lab analysis of petroleum-related VOCs and SVOCs were from borings near the existing diesel maintenance facility. Sampling for PFAS was conducted from depths between 0 to 0.5 feet bgs at undisturbed locations along the northern property boundary.

The results of the soil analytical indicated that no VOCs were present at the subject property, consistent with the 1999 findings from groundwater sampling. According to Alpha's investigations, certain samples of the groundwater beneath the site contained PFOA and PFOS at levels above EPA HAL of 70 ppt on both upgradient and downgradient areas of the subject property. This is a result of the East Hampton Airport and a portion of the East Hampton Industrial Park located directly upgradient of the subject property and within the recharge zone for groundwater passing beneath the site. Thus, there is no evidence that suggests that elevated levels of PFOA and PFAS are originating from the subject property and associated

[8] These eight RCRA metals include: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium and Silver.

operations thereon. All evidence, including the November 2018 Site Characterization Report prepared by AECOM for NYSDEC, suggest that the elevated levels of PFPA and PFOS in certain groundwater samples taken from under the subject property are coming from the East Hampton Airport and a portion of the East Hampton Industrial Park located directly upgradient from the subject property. All metals and compounds of concern were all within drinking water standards. However, iron and manganese were found in certain samples of the groundwater below the subject property at levels above the NYSDOH Part-5 drinking water limits. However, these elevated levels of metals in drinking water were consistent with levels detected both upgradient and downgradient of the site. Iron levels were consistent with background levels in groundwater throughout Suffolk County.

Lab results indicated that all eight metals and manganese were well below the NYSDEC unrestricted use soil cleanup objectives (SCO) and do not present an environmental threat. There is no NYSDEC SCO for iron, which is also not an environmental threat. However, Alpha utilized a NYSDEC survey of iron concentrations in New York, which provides documented map of iron concentrations found in "Source-District" areas. It was determined that the concentrations of iron in the soils at the subject property are at the lower end of the typical concentrations mapped by NYSDEC throughout rural Upstate New York. Importantly, soil boring results also revealed that no PFOA or PFOS were detected on the undisturbed northern portion of the site and only very low concentrations of two PFAS (PFTrDA and PFUnA) were encountered; these PFAS are unregulated by the federal government and therefore do not have an EPA HAL.

As previously discussed, the NYSDEC's contractor, AECOM, found PFOA and PFOS at higher levels than 70 ppt at four locations (areas of concern) at the East Hampton Airport and just south of the Airport along Industrial Road on lots owned by the Town. Two of the areas are directly upgradient of the site, one of which contains the Aircraft Rescue and Firefighting Facility and the other site contains a burn training center in the Town Industrial Park. The other two areas of concern are upgradient from the eastern portion of a residential well testing area where firefighting foam use was documented by AECOM.

Alpha undertook their own investigation to evaluate the alleged application of PFAS containing AFFF during a fire training exercise in June 2000. No PFOA or PFOS were detected in the three soil samples collected by Alpha in the area of that fire training exercise. The lack of PFOA and PFOS at the site of the fire training exercise is consistent with a comparison of the June 2000 site photographs published by the Southampton Press in March 2018 with example photographs of fire suppressant foam contained in AECOM's 2018 report. AECOM's photograph examples of fire suppressant foam for a training exercise depicts a thick coating of foam, which does not appear to be the thinner, sparse suds that present in the pictures from the training exercise at the subject property in June 2000. The suds at the subject property appear more consistent with the use of a surfactant such as detergent (i.e., soap). This soapy water used at the site in June 2000 is validated by a sworn statement from the former Chief of the Bridgehampton Fire Department who was onsite during the drill and indicated that a wetting agent was used.

Additional information regarding groundwater quality from Alpha's Environmental Assessment is presented in **Section 2.3 Water Resources**.

Site Characterization

As the NYSDEC has deemed the subject property a potential inactive hazardous waste disposal site, a site characterization work plan was prepared by the NYSDEC in Fall 2019. The work plan was undertaken by contractors on behalf of the NYSDEC with the applicant's complete cooperation in order to determine if soil and water samples from the subject property contain metals, VOCs, SVOCs, PCBs, pesticides, herbicides, PFAS, PFOA or 1,4-dioxane (see Site Characterization Sampling Plan in **Appendix D-4**). Since the NYSDEC was informed by the ALPHA Environmental Assessment that certain of the groundwater at the site contained PFOA and PFOS, a main focus of the NYSDEC's site characterization is to determine whether any PFOS or PFOA was disposed at the subject property. The ALPHA Environmental Assessment has determined that not to be the case. To date, the site characterization is currently ongoing, and a site characterization report is anticipated in the very near future.

2.2.2 Potential Impacts

<u>Soils</u>

Subdivision of the subject property into 50 commercial/industrial lots will not in and of itself have any impacts to soils. However, installation of roadways and underground utilities such as public water connections and natural gas lines, have the potential to impact natural soils at the subject property. Nonetheless, the entire property has been previously disturbed by mining activities since the late 1940s. Clean fill and topsoil was also brought to the site in the past to reclaim the site beyond what was required by the NYSDEC. Therefore, as demonstrated by the soil types found on the site, more than half of the site does not contain original soil types. In addition, soil disturbance would be entirely contained within the boundaries of the subject property and would not impact the surrounding uses. As noted above, an average site elevation of 18 feet will be achieved subsequent to grading activities for the proposed internal roadways and underground utility installations.

An assessment of soils was conducted based on Soil Survey information which revealed that soils on-site are generally well-suited for development and would pose mostly minor limitations or constraints to development. Possible minor issues include:

- A slight risk of pollution of lakes, springs, or shallow wells due to the relatively permeable nature of on-site soils. This issue specifically relates to the use of conventional on-site septic systems combined with rapid soil permeability. However, it is anticipated that future development at each lot would utilize Low Nitrogen Sanitary Systems in accordance with Town Code provisions and Article 19 of the Suffolk County Sanitary Code. Since drainage will be properly sited, designed, and installed, this issue does not pose a constraint to proposed development of the site;

- Rapid or moderate-to-rapid recharge of irrigation water due to the well-drained nature of the soils. This minor issue can be addressed by planting native, well-adapted and/or low water demanding landscaping (xeriscaping); mulching or applying topsoil if needed in some areas for greater water holding capacity. Issues relating to drainage are limited due to the considerable property size which allows for proper siting of proposed interconnected system of catch basins, piping and leaching pools;
- Areas of moderate-to-steep slopes are present throughout the interior of the property due to previous mining activities, which can be easily addressed by proper grading and slope stabilization techniques. Excess slope material will be utilized to achieve an average post-construction site elevation of approximately 18 feet.

There are no lakes or wetlands on-site and the future development will rely on a public water supply as its source of potable water. As previously noted, the subject property is within the service area of the SCWA Distribution Area 23. SCWA water mains are available along all roadways surrounding the subject property. It is anticipated that future developments at all lots will be connected to the newly created and expanded Wainscott Water Supply District. Future projects will be required to undergo review by the SCWA to ensure availability and adequate water supply for anticipated water demand, which will be reviewed on a lot-by-lot basis. Wastewater will be handled by individual Low Nitrogen Sanitary Systems on each lot, in accordance with Town Code requirements and Article 19 of the SCSC.

All stormwater runoff generated on the developed portion of the property will be retained and recharged in on-site drainage systems designed to fully accommodate the volume of runoff anticipated from the required design storm event, and in conformance with Town specifications and requirements. Drainage plans will be developed in accordance with the New York State Stormwater Management Design Manual and New York Standards and Specifications for Erosion and Sediment Control. Adequate depth to groundwater will be provided for leaching structures (drainage and sanitary) pursuant to design guidelines and agency approvals. Finally, the soils present on-site do not have characteristics that would limit or otherwise adversely affect the operation of the proposed drainage system.

Potential fugitive dust impacts will be mitigated through implementation of dust, erosion and sedimentation control measures. In addition, water trucks will be present during construction to wet dry soils, as necessary. A Final Grading and Drainage Plan will be submitted to the Planning Board at the site plan stage as will a detailed Final Erosion and Sediment Control Plan, which will be subject to review and approval of the Town. This will ensure that the project's drainage system will function properly and minimize potential stormwater impacts to the maximum extent practicable and erosion potential will be property managed. Based on these considerations, no significant adverse impacts are expected with regard to soils.

Subsurface Contamination

It should be noted that subdivision of the subject property lots will not in and of itself have impact existing subsurface conditions. However, following the subdivision, construction of internal roadways and installation of underground utilities would occur. The individual site

development concept is to have common driveways between pairs of lots to access the buildings and parking areas. As noted in **Section 2.2.1**, Alpha's Hydrogeologic Investigation determined there is no indication that there is a source of groundwater contamination at the site that is currently impacting local, downgradient water supply wells. Additionally, there is no indication that there is a source of groundwater contamination at the site that will impact downgradient wells in the future if the site is developed. This idea is further advanced in Alpha's January 2019 Environmental Assessment which indicates that there is no evidence of pollutants entering groundwater at the subject property and elevated levels of nitrates causing hazardous algal blooms in the Georgica Pond are not originating at the site. Furthermore, Alpha's Environmental Assessment indicated that the only significant change as a result of future development at the site will be from the additional of individual septic systems for each new commercial/industrial tenant. However, the use of I/A OWTS/Low Nitrogen Sanitary System technologies at the subject property reduce total nitrogen in treated effluent to less than 19 mg/l and possibly lower as many existing approved systems are resulting in total nitrogen in effluent of well under the standard. In addition, since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced. Further water resource information and evaluation is provided in Section 2.3.

Finally, any future use that proposes to store toxic or hazardous materials, either above ground or below ground, would comply with the applicable requirements outlined in Article 12 of the SCSC and will obtain all necessary permits for same in order to protect groundwater resources. Thus, it is anticipated that there would be no significant adverse impacts to subsurface conditions as a result of the Proposed Action and future development at the subject property.

2.2.3 Proposed Mitigation

The following mitigations and remediation measures will be implemented prior to construction of the internal roadways and underground utilities.

- Proper site grading design by a licensed professional engineer and review by the Town will eliminate the limited soil restrictions posed by slopes.
- Clearing and rough grading of the site will be conducted in accordance with the approved Site Plan and under the supervision of the Town Building Department.
- A stabilized construction entrance will be provided to reduce the tracking of soil on to public streets.
- A Final Erosion and Sediment Control Plan will be prepared during the site plan review stage and implemented during construction.
- Erosion controls including work area perimeter silt fencing and drainage inlet protection will be installed around all grated drainage inlets, as applicable, to prevent sediments from entering and settling within any subsurface drainage structures that may be affected.

- Drainage infrastructure will be installed to meet the design and capacity requirements of the Town and will meet the satisfaction of the Town Engineer.
- Material staging areas and designated stockpile locations will be located on-site and will be protected.
- Dampening soil if necessary to control dust, installation of a stabilized construction entrance and/or "rumble" strips at the construction entrance to remove soil from truck tires, drainage inlet protection (if drains may be affected), establishment of suitable internal construction staging areas and retention of naturally vegetated buffer areas around the eastern and western perimeters of the property will minimize disturbance and issues from soil resources during construction to the extent practicable. Onsite construction vehicle speeds will be kept to a minimum to prevent unnecessary raising of dust.
- Future use of I/A OWTS at each lot which will reduce total nitrogen in treated effluent to 19 mg/L at a minimum.

2.3 Water Resources

2.3.1 Existing Conditions

Surface Water and Drainage

The 70.51± acre mostly vacant site currently consists of a reclaimed sand and gravel mine, with two operational industrial uses. There are no regulated natural or artificial water bodies or wetlands on the subject property or immediately adjacent to the site based on a review of NYSDEC freshwater wetlands maps (**Figure 2-5**). Additionally, on-site inspections have been conducted to identify existing environmental conditions with respect to potential surface water features. The site inspections did not reveal the presence of any unmapped surface waters or wetlands on or immediately adjacent to the property.

Off-site toward the southeast lies the northwest Georgica Pond Tributary designated NYSDEC freshwater wetland which is located within wooded land on the east side of Hedges Lane south of Montauk Highway. This wetland is associated with Georgica Pond, a New York State Tidal Wetlands and United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI)-classified surface waterbody. Portions of this Georgica Pond Tributary are also federal wetlands according to NWI data. According to the NYSDEC Environmental Resource Mapper, this state-regulated freshwater wetland on the east side of Hedges Lane is 12.1 acres in size and is a Class I Wetland. According to Title 6 of the New York Codes, Rules and Regulations (NYCRR) Part 664 Freshwater Wetlands Maps and Classifications, a Class I wetland provides the most benefits of all wetland classes as it provides any of the following characteristics:

Ecological Associations

(1) It is a classic kettlehole bog;

Special Features

(2) It is resident habitat of an endangered or threatened animal species;

(3) It contains an endangered or threatened plant species;

(4) It supports an animal species in abundance or diversity unusual for the State or for the major region of the State in which it is found;

Hydrological and Pollution Control Features

(5) It is tributary to a body of water which could subject a substantially developed area to significant damage from flooding or from additional flooding should the wetland be modified, filled or drained;

(6) It is adjacent or contiguous to a reservoir or other body of water that is used primarily for public water supply, or it is hydraulically connected to an aquifer which is used for public water supply; or

Other

(7) It contains four or more of the enumerated class II characteristics. The department may, however, determine that some of the characteristics are duplicative of each other, therefore do not indicate enhanced benefits, and so do not warrant class I classification. Each species to which paragraphs (b)(6)-(8) of this section apply shall be considered a separate class II characteristic for this purpose.

The NYSDEC mapper indicates that a portion of the eastern site boundary may be located in the State Regulated Freshwater Wetland Checkzone or the 100-foot NYSDEC regulated buffer zone. This wetlands Checkzone map is only a screening tool that shows the approximate locations of potential wetlands that warrant field check of actual site conditions for confirmation of absence, presence and/or location of wetlands. Based site inspection and identification of the nearest off-site wetlands, coupled with Geographic Information System (GIS) measurements, the nearest wetland is located more than 350 feet southeast of the subject site. As a result, no site activity will occur within the 100-foot NYSDEC jurisdiction area of freshwater wetlands and no Article 24 permit is required.

According to §924 of Article 16, Chapter X of the NYSDEC regulations,[9] the northwest Georgica Pond Tributary located southeast of the subject property has been assigned a Water Quality Classification of "C" under Fresh Surface Waters. This designation indicates fresh surface waters for which the "best usages are for fish, shellfish and wildlife habitat." The water quality shall be suitable for primary and secondary contact recreation, although it is noted that other factors may limit the use for these purposes" (see §701.8 of Article 2, Chapter X of the NYSDEC regulations).[10]

[9] New York State Environmental Conservation, *Part 925: Western Suffolk County Waters* (accessed February 2019); available from http://www.dec.ny.gov/regs/2485.html.

[10] New York State Department of Environmental Conservation, *Part 701: Classifications-Surface Waters and Groundwaters* (accessed February 2019); available from http://www.dec.ny.gov/regs/2485.html.

The northeast Georgica Pond Tributary is designated as "Class D" under Fresh Surface Waters and Georgica Pond itself is classified as "Class SA" under Saline Surface Waters. The best usage of Class D waters is fishing, and these types of waters are suitable for fish, shellfish and wildlife survival. As a result of natural conditions such as intermittency of flow, water conditions are not favorable to propagation of game fishery or stream bed conditions for Class D waters. Additionally, Class D waters are suitable for primary and secondary contact recreation, however, there may be other factors that limit these recreational uses (see §701.8 of Article 2, Chapter X of the NYSDEC regulations). According to §701.8 of Article 2, Chapter X, Class SA waters are best used for shellfishing for market purposes, as well as primary and secondary contact recreation and fishing. Additionally, Class SA waters are suitable for fish, shellfish and wildlife proliferation and survival.

Georgica Pond is considered an impaired waterbody as a result of pathogens and harmful algal blooms. According to the NYSDEC's 2016 Shinnecock Bay/Atlantic Ocean Watershed Fact Sheet, urban and stormwater runoff are the primary sources of pathogens. Public bathing and other recreational uses are potentially supported by the NYSDEC based on the surface water classification; however, these uses may be stressed or threatened as a result of harmful algal blooms which are known to occur in Georgica Pond. Shellfish harvest for consumption is precluded in Georgica Pond as the waterbody has been designated uncertified for shellfish taking as a source for food. However, there are no health advisories in place limiting fish consumption. According to the source assessment in the 2016 Shinnecock Bay/Atlantic Ocean Watershed Fact Sheet "Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens to the waterbody are largely nonpoint runoff from developed and undeveloped lands, agricultural activity and open space/forest; direct waterfowl/wildlife inputs and boats and marinas also may contribute". A number of waterbodies within the Shinnecock Bay/Atlantic Ocean Watershed have shellfishing impairments as a result of urban and stormwater runoff as well as agricultural activity.

The Georgica Pond watershed is not included on the NYSDEC's NYS Section 303(d) List of Impaired/TMDL [Total Maximum Daily Load] Waters since it is categorized as an EPA Integrated Reporting (IR) Category 4a that is not listed as it is covered by the 2007 Long Island Pathogen TMDL. An EPA IR Category 4a is defined as "[o]ne or more designated uses are impaired or threatened but establishment of a TMDL is not required because a state developed TMDL has been approved by EPA or a TMDL has been established by EPA for any water-pollutant combination".[11] The 2007 Long Island Pathogen TMDL was established to address shellfishing impairments caused by pathogens in surface waters.

As indicated in Alpha's Hydrogeologic Investigation, the primary concern for Georgica Pond is the effect on this water feature by nitrogen, phosphorus, bacteria from septic discharge to the water table and stormwater runoff. Nitrogen and phosphorus compounds can result in algal

[11] US EPA. EPA Integrated (IR) Categories and How ATTAINS Calculates Them; Version 8/31/2018 (accessed March 2019); available from https://www.epa.gov/sites/production/files/2018-09/documents/attains_calculations_of_epa_ir_categories_2018-08-31.pdf

blooms and related degradation that damages the aesthetic quality of water, creates recreational hazards and impairs aquatic habitats.

Alpha determined groundwater elevations at Georgica Pond between June 2018 to December 2018, based on information from the Georgica Pond United States Geological Survey (USGS) Monitoring Station. According to USGS information, groundwater elevations during the aforementioned months ranged from 5.75 feet amsl to 5.88 feet amsl. The 12-year average for Georgica Pond on December 7, 2018 was 4.22 feet amsl.

As noted above, Georgica Pond is both a NYSDEC regulated tidal wetland and federally regulated (NWI) wetland. The tidal wetland boundary is located approximately 600 feet southeast of the site, on the opposite side of Montauk Highway, while the federal wetland boundary is located approximately 400 feet east and southeast of the project site. The tidal wetland is classified as SM – coastal shoals, bars and mudflats according to NYSDEC. According to the NYSDEC's website,[12] SM tidal wetlands are zones that at high tide are covered by saline or freshwater tidal waters and at low tide are exposed or covered by water to a maximum depth of approximately one foot and are not vegetated.

The project site is almost entirely located in Federal Emergency Management Agency (FEMA) Flood Zone X, which is defined as the areas outside of the Special Flood Hazard Area and higher than the elevation of the 0.2 percent annual chance flood zone (see **Figure 2-6**). The FEMA X flood zone is found in upland areas and is outside of any of the FEMA 100-year flood zones or Special Flood Hazard Areas; this flood zone designation is very rarely if ever flooded by large storm events. However, a very small area (approximately 1,830 SF currently used by Southampton Masonry) in the southeastern corner of the site is located in the FEMA X-500 (0.2 percent annual chance) flood zone.

The majority of the project site is currently a vacant sand mine. Therefore, the majority of stormwater is either directly recharged into the ground on-site, evaporates in-place or is absorbed and transpired by re-established vegetation. Stormwater runoff generated from the existing uses on the southern portion of the site is collected via existing on-site drainage structures. Alpha noted that the aquifer at the site is an unconfined sand aquifer that receives recharge from direct precipitation to the land surface. Additionally, Alpha's investigations determined that groundwater contours show that recharge originates from both precipitation at the site, as well as from precipitation to the land surface upgradient (northwest of the site).

Special Groundwater Protection Areas and Critical Environmental Areas

Article 55 of the Environmental Conservation Law designates specific areas on Long island that are Special Groundwater Protection Areas (SGPA). Although not within an SGPA the subject property is bordered to the north and east by the South Fork SGPA. The *Long Island Comprehensive Special Groundwater Protection Area Plan* classifies nine SGPAs in Nassau and Suffolk County and states that SGPA's are recharge watershed areas within a designated sole

[12] New York State Department of Environmental Conservation. *Tidal Wetlands Categories* (accessed February 2019); available from https://www.dec.ny.gov/lands/5120.html.

source aquifer that "is particularly important for the maintenance of large volumes of high quality groundwater for long periods of time".[13] All SGPAs are Critical Environmental Areas (CEAs) and are significant, largely undeveloped or sparsely developed geographic areas of Long Island that provide recharge to portions of the deep flow aquifer system.

According to the NYSDEC website[14], CEA's are areas that have an exceptional or unique character in connection with one or more of the following:

- *a benefit or threat to human health;*
- *a natural setting (e.g., fish and wildlife habitat, forest and vegetation, open space and areas of important aesthetic or scenic quality);*
- *agricultural, social, cultural, historic, archaeological, recreational, or educational values; or*
- *an inherent ecological, geological or hydrological sensitivity to change that may be adversely affected by any change.*

The South Fork SGPA was designated by the Long Island Regional Planning Board on April 18, 1993 in order to protect groundwater. In addition, the East Hampton Water Recharge Overlay District CEA, which partially overlaps the South Fork SGPA, also abuts the property to the north and east; this CEA begins at the southern boundary of the East Hampton Airport (see **Figure 2-7**). The East Hampton Water Recharge Overlay District CEA was designated by the Town of East Hampton on February 12, 1988 in order to protect groundwater and drinking water.

Groundwater Hydrology/Hydrogeology

The major water-bearing units beneath the subject site include the Upper Glacial aquifer, which is underlain by the Magothy and Lloyd aquifers, respectively. The Magothy and Lloyd aquifers are separated by the Raritan Clay which restricts flow between the two geologic units. The primary units from which water is drawn in the Town of East Hampton are the Upper Glacial and Magothy aquifers. These unconsolidated water-bearing units (i.e., aquifers) comprise what is referred to by the USEPA as Long Island's "Sole Source Aquifer." This regional water resource represents the only currently available source of drinking water in Suffolk and Nassau Counties, and therefore, must be protected to ensure its long-term quality and availability for future generations.

The proposed project is also located within SCDHS Groundwater Management Zone (GMZ) V pursuant to the SCSC. According to Article 7 of the SCSC, GMZ V is considered a deep recharge area that contributes recharged water to a deep groundwater flow system that replenishes the quantity and quality of the long-term water supply. Furthermore, the subject property is not within the East Hampton Pine Barrens area.

[13] Long Island Regional Planning Board. *The Long Island Comprehensive Special Groundwater Protection Area Plan*. July 27, 1992

[14] New York State Department of Environmental Conservation. *Critical Environmental Areas (CEAs)* (accessed February 2019); available from https://www.dec.ny.gov/permits/6184.html.

Groundwater on Long Island is derived entirely from precipitation. Precipitation percolating through the soil profile as groundwater recharge passes through the unsaturated zone to a depth, below which all strata are saturated, known as the "water table" or "zone of saturation." The groundwater table is equivalent to sea level where it interfaces with marine waters along the north and south shores of the south fork, and rises in elevation toward the center of the south fork creating a "lens" of potable drinking water. The high point of this parabola is referred to as the groundwater divide which separates generally northerly flowing groundwater from generally southerly flowing groundwater. The change in water table elevation over distance creates a hydraulic gradient (i.e., a sloping water table) which causes groundwater to flow down-gradient under gravity. The subject parcel is located southeast of the south fork groundwater divide, and, based on the orientation of the groundwater elevation contours depicted in **Figure 2-8**, the direction of flow within the water table aquifer is generally toward the southeast toward Georgica Pond southeast of the property.

According to Alpha's investigations, the groundwater contours show that recharge at the site originates from both precipitation at the site and from land surface upgradient (northwest of the site), which moves groundwater flow from northwest to southeast beneath the site. Additionally, Alpha noted in their report that the regional water table contour map shows that the East Hampton Airport is directly up the groundwater flow gradient from the site and thus, recharge crossing beneath the site is from the airport area and areas farther northwest (see additional information in Hydrogeologic Investigation discussion below). Furthermore, Alpha determined that groundwater flow below the site also passes underneath a small number of properties along Hedges Lane, the northern end of Stone Road, Fenwood Road, the eastern end of Merriwood Drive, and a short segment of Montauk Highway where water supply wells are likely present.

Figure 2-8 indicates that the groundwater table (in the Upper Glacial aquifer) at the subject site is approximately 10 feet amsl at the southwest end of the subject property; although seasonal changes and fluctuations in precipitation rates can affect water table levels slightly. As further discussed below and as depicted in Alpha's Hydrogeologic Investigation (November 2018) and Environmental Assessment (January 2019), in July 1999, eight groundwater monitoring wells were installed by Sand Land Corporation, which were each sampled 13 times over the course of approximately two years (between 1999 and 2001) to determine water table elevations and groundwater quality. This information was incorporated into the 2001 DEIS prepared by Land Marks Land Planning and Conservation for Sand Land Corporation. It should be noted that OMW-3 was destroyed prior to sampling in December 1999 (possibly as a result of vandalism or ongoing commercial activities).

In June 2018, Alpha installed new monitoring wells (MW series) within the seven borings around the perimeter of the site to collect recent water data at the subject property at the request of the Applicant. Water table elevations/depth to groundwater and groundwater quality data were then obtained in June and September from two pre-existing wells OMW series (OMW-1/MW-8 and OMW-4/MW-6A) and the seven new monitoring wells (see **Figure 2-2**). In addition, Alpha collected a fourth set of water level measurements on December 7, 2018 during their soil investigations. **Table 2-5** provides the water table elevation data at the subject

property from the 1999-2001 well samples and the 2018 well samples. Table 2-6 presents depth to groundwater at the site from the 1999-2001 well samples and the 2018 well samples. Alpha's Hydrogeologic Investigation in **Appendix D-2** may be reviewed for additional data.

TABLE 2-5
WATER TABLE ELEVATIONS (amsl)

Well Number	Sample Years			
	1999-2001	June 2018	September 2018	December 2018
OMW-1/MW-8	6.76 – 8.51	7.90 – 8.03	7.40	7.56
OMW-2	7.19 – 9.12	--	--	--
OMW-4/MW-6A	8.90 – 10.01	10.31 – 10.48	9.30	10.61
OMW-5	9.50 – 10.60	--	--	--
OMW-6	8.52 – 9.27	--	--	--
OMW-7	7.98 – 8.78	--	--	--
OMW-8	8.58 – 9.43	--	--	--
MW-1	--	8.46 – 12.17	7.60	8.11
MW-2	--	9.41 – 9.61	8.61	9.59
MW-3	--	10.47 – 10.62	9.36	10.71
MW-4	--	9.79 – 9.91	8.76	9.94
MW-5	--	10.65 – 10.79	9.57	10.92
MW-6	--	10.33 – 10.50	9.28	10.63
MW-7	--	9.73 – 9.91	8.78	10

TABLE 2-6
DEPTH TO GROUNDWATER (bgs)

Well Number	Sample Years[1]		
	June 2018	September 2018	December 2018
MW-1	2.31 – 6.02	6.88	6.37
MW-2	9.33 – 9.53	10.33	9.35
MW-3	8.54 – 8.69	9.80	8.45
MW-4	8.74 – 8.86	9.89	8.71
MW-5	11.57 – 11.71	12.79	11.44

MW-6	8.48 – 8.65	9.70	8.35
MW-6A (OMW-4)	7.58 – 7.75	8.76	7.45
MW-7	8.58 – 8.76	9.71	8.49
MW-8 (OMW-1)	15.21 – 15.37	15.87	15.71

[1] Measured from the top of the PVC casing elevation for each well (at grade).

Based on the monitoring well data, it is apparent that depth to groundwater at the overall subject property ranges from 6 feet bgs to more than 15 feet bgs. As depicted in the tables above and discussed in both the 2001 DEIS and the Hydrogeologic Assessment, groundwater elevation levels are highest along the northwest edge of the site (OMW-5, MW-5 and OMW-4/MW-6A) and lowest in the southeast region of the site (OMW-1/MW-8). This further supports the finding that groundwater flows beneath the site from northwest to southeast, toward Georgica Pond. The only anomaly in water table elevations is the higher water table elevation at MW-1 (2.31 bgs as noted on **Table 2-6**) at the southwest corner of the site on June 26, 2018. This was due to localized aquifer recharge associated with ponded water at the ground surface. Following June 26, 2018, data revealed that MW-1 had returned to an elevation that was consistent with the overall slope of the water table. Furthermore, the data shows a small decline in water level elevations through the summer and then a rebound in December. The December results were influenced by an unusually high amount of rainfall that occurred in the area during November 2018 (more than twice the normal average rainfall in November).

As detailed in the Hydrogeologic Assessment, regional groundwater maps illustrate that groundwater flows from upgradient areas, such as the East Hampton Airport and beyond, toward the southeast where groundwater discharges into Georgica Pond and, eventually, to the Atlantic Ocean. The Hydrogeologic Assessment also discusses horizontal groundwater flow velocity. Based on Alpha's equations and research of the hydraulic conductivity of the outwash sand portion of the Upper Glacial Aquifer, it was determined that groundwater flow velocity is 335 feet per year (0.92 feet/day) across the subject property.

Groundwater Quality

The subject site is located within the SCWA Service Distribution Area No. 23. The nearest water supply well to the subject property is the East Hampton – Sag Harbor Turnpike Wellfield, which contains two wells and is located approximately one mile north-northeast of the subject property, north of the East Hampton Airport. According to the SCWA, these wells draw from both the Upper Glacial Aquifer and the Magothy Aquifer.

Public supply wells are routinely monitored by SCWA and SCDHS to ensure the continued delivery of potable drinking water to SCWA's customers. In October 2017, the NYSDEC requested that the SCDHS sample drinking water supplies near the East Hampton Airport, as the US EPA identified two chemicals known as PFOS (Perfluorooctanesulfonic acid) and PFOA (perfluorooctanoic acid) as emerging contaminants, which are part of a class of chemicals as perfluorinated compounds (PFCs) and are unregulated by the federal government. PFCs have

been used in several industrial and commercial products such firefighting foam, as well as coatings that repel water, oil, stains and grease. Thus, Wainscott residents may be exposed to PFOS and PFOA through air, water, or soil from industrial sources and from consumer products. The NYSDEC requested sampling in the area, as the East Hampton Airport revealed that it had used or stored products that may have contained PFOS and PFOA. As such, SCDHS sampled private wells in East Hampton and determined that PFOS had impacted over 150 private wells in Wainscott, south of the East Hampton Airport. SCDHS then issued a water quality advisory and further testing was conducted to determine the source of the contamination.

The Town, in conjunction with the SCWA, were awarded a state water infrastructure grant under the New York State Clean Water Infrastructure Act of 2017 to address the contamination and extend SCWA water mains throughout the areas where private wells were found to be contaminated. As a result, the new Wainscott Water Supply District was formed by the SCWA, water mains were extended throughout the impacted areas and private service line hook-ups to the mains were arranged. It was determined that storage of firefighting foam at and near the East Hampton Airport was the source of contamination of residential wells in Wainscott.

According to the Town of East Hampton's Wainscott Water District Weekly Update[15], 96 residences are now connected to public water supply, 40 customers have private service lines installed and are awaiting connection and there were approximately 64 percent of customers in the area participating in this program as of December 7, 2018. The subject property is depicted on the Wainscott Water Supply District as "Service Not Required." According to this map, there is an existing 16 inch water main along Wainscott Northwest Road to the west of the site, and SCWA is proposing to install a 16 inch water main along Old Montauk Road and the southern portion of Hedges Lane, as well as a 12 inch water main along the northern portion of Hedges Lane. All such water mains have been installed.

The previously referenced AECOM Site Characterization Report indicated that samples collected during the investigation from several private water supply wells that service leased hangar spaces were found to have trace to low levels of PFOS and PFOA and no detections were above the EPA's HAL in drinking water. However, historical use of aqueous film-forming foam has impacted groundwater quality upgradient and downgradient of the East Hampton Airport with concentrations of PFOS and PFOA above the EPA's HAL. As noted in **Section 2.2.1**, the AECOM report recommends a supplemental investigation of the four areas of concern to delineate the nature and extent of the impacts associated with the PFAS contamination. Expansion of existing on-site monitoring wells at the airport and off-site monitoring wells upgradient (installed by SCDHS) are also recommended in the AECOM report to determine the extent of impacted groundwater. Finally, the report also suggests implementing a groundwater sample program at the airport to complete horizontal and vertical delineation of the PFAS impact to groundwater.

NP&V obtained SCWA's annual 2020 (2019 calendar year) Drinking Water Quality Report (the

[15] https://ehamptonny.gov/602/Wainscott-Water-Supply-District

most recent report available) to review additional water quality monitoring results for Distribution Area #23 and determine the general status and quality of the supply. These data contain the results of tests conducted for over 100 different water quality parameters, including various inorganic constituents (IOCs), synthetic organic compounds (SOCs), VOCs, disinfectants, disinfectant byproducts (chlorination), and pharmaceuticals and personal care products. These parameters that were tested many times throughout 2019 resulting in thousands of individual monitoring results. Of the water quality parameters that have been assigned a maximum contaminant level (MCL) by the EPA, only iron, a naturally occurring IOC was found to exceed its MCL during the 2019 calendar year. The MCL established for iron in drinking water is 300 µg/L (i.e., parts per billion [ppb]); however, according to the 2019 data, the highest iron concentration in a sample of Distribution Area 23's drinking water was 424 µg/L which moderately exceeds the MCL. The average concentration of the 199 samples taken from Distribution Area 23 in 2019, however, was 86 µg/L, which is well below the MCL. The lowest concentration was "ND" or "no detection" which indicates that the element, chemical or constituent was not present or was so low that it could not be detected using contemporary water quality measurement techniques.

Nitrate, which is an inorganic compound of local concern for both human health and environmental concerns at elevated levels, was found to be consistently below the MCL of 10 mg/l (milligrams per liter or partners per million [ppm]) in 2019; however, the maximum concentration detected in Distribution Area 23's drinking water supply was 9.92 mg/l, which is generally considered to be above typical natural ambient levels. Moreover, the average nitrate level, based on 263 nitrate samples taken in 2019, was 3.68 mg/l which is less than half of the drinking water standard. Again, the lowest recorded value was "ND or "no detection." Some potential sources of nitrate include fertilizers, sanitary system discharge, stormwater runoff, animal wastes and atmospheric deposition.

SCDHS has established what it refers to as "Water Supply Sensitive Areas" (WSSAs) [16] which are defined as:

- *A groundwater area separated from a larger regional groundwater system where salty groundwater may occur in the Upper Glacial aquifer, and where deepening of private wells and/or development of community water supplies may be limited; or*
- *Areas in close proximity to existing or identified future public water supply wellfields. In general, for the purposes of this Article, "close proximity" shall mean within 1,500 feet upgradient or 500 feet downgradient of public supply wells screened in the Upper Glacial aquifer;*

The purpose of this designation is to regulate certain land uses that may have a detrimental effect on public water supplies due to proximity and on-site activities that may be hazardous. The subject does not meet either of these criteria and, therefore, is not considered a WSSA.

[16] Suffolk County Department of Health Services. *Suffolk County Sanitary Code, Article 7 Water Pollution Control*. Revised November 2011.

Hydrogeologic Investigation (November 2018)

Groundwater quality is an important factor for the health of Georgica Pond and residents of Wainscott who rely on groundwater for drinking water. While concerns for Georgia Pond are mainly nutrient loading from fertilizers and septic systems, concerns for human health include not only nutrient loading but contaminants to the water supply from PFOA, PFOS, 1,4-dioxane and hexavalent chromium which are toxic chemicals that are linked to severe illnesses (e.g., cancer). Additionally, high iron and manganese are naturally occurring and/or introduced elements of concern mostly due to aesthetic's as a result of discoloration, poor taste and/or staining of household fixtures if water is not treated and filtered.

As previously noted, eight soils borings were drilled by Alpha on behalf of the Applicant in May 1999. Alpha obtained these groundwater sample results to incorporate into their November 2018 investigation. The samples were tested at an analytical laboratory to verify potable water standards, total petroleum hydrocarbons, chlorinated herbicides and organophosphorus pesticides. Lab results revealed that groundwater beneath the site did not contain any herbicides pesticides, or hydrocarbon-related volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). However, iron and manganese were found to be above NYSDOH drinking water standards at some locations (see Table 5 in **Appendix D-2** for full lab results).

Testing for VOCs were not included in the water quality samples collected in new wells in 2018 by Alpha. Alpha's analysis instead focused on selected metals including iron and manganese, as well as PFAS, 1,4-dioxane and hexavalent chromium. Overall results indicated that nitrates, 1,4-dioxane and hexavalent chromium were within the USEPA and NYS drinking water standards; however, elevated levels of PFAs, iron, manganese, aluminum and sodium were detected.

Nitrate (and nitrogen as nitrite) were well below the drinking water standard of 10 mg/l (total nitrogen) in all of the ground water samples collected from the on-site monitoring wells. Iron and manganese were not detected or were detected at low concentrations in most wells, aside from three wells located downgradient which had higher concentrations. The values of these metals were higher at the upgradient sides of the site and throughout the central portions of the site, which indicates that some of the elevated levels are originating from offsite sources. As noted above, high levels of iron and manganese are elements of concern but mostly due to aesthetic's. Sodium and aluminum concentrations were slightly above the recommended levels, which are not required standards.

PFAS concentrations were detected in all eight new monitoring wells in 2018, which appeared to be similar to concentrations on both the upgradient and downgradient edges of the subject property. Nine PFAS compounds were identified in each sample well with the three highest compounds found in monitoring wells on the northern and northeastern portions of the site, proximate to the East Hampton Airport. Alpha's investigation states that the high concentrations of PFAS found at these monitoring wells supports the interpretation that the sources for these compounds are offsite. Some concentrations of PFOA and PFOS found on both the upgradient and downgradient edges of the site (relative to the direction of groundwater flow) exceeded the EPA secondary contamination level of 70 ppt. These findings

further suggest that PFAS are originating offsite to the northwest and traveling in groundwater beneath the site toward the southeast. Alpha's 2019 Environmental Assessment provides an additional discussion of groundwater and surface water quality concerns raised by the Town as a result of past and current operations at the subject property.

Environmental Assessment (January 2019)

At the request of the Applicant, Alpha conducted a thorough review of the history of the property, summarized regional environmental concerns, investigated groundwater conditions and examined soils at the site. This analysis was prepared to address Town concerns noted in the Planning Department Part II and Part III EAFs, dated September 5, 2018, which presented concerns regarding the potential for construction of water supply wells where groundwater was, and suspected to be, contaminated. As noted in the Town EAF, there were concerns of excess levels of metals detected in groundwater and the presence of PFOS and PFOA in water supply wells at and near the site.

Alpha's environmental concerns suggested that potential contaminants may be present in soil and groundwater at the site due previous tenants at the southern portion of the property. Over the years, uses on the southern end of the site have raised the potential for presence of hydrocarbons (e.g., diesel or other petroleum compounds) that could be associated with operations at the diesel repair shop, pesticides and nitrates relating to landscaping operations, and other VOCs that could be related to the small-scale furniture repair facility. These tenants utilized individual septic systems that potentially contributed to nitrates in groundwater.

As previously noted, community members have raised concerns for potential groundwater contamination from hexavalent chromium, 1,4-dioxane and PFAS, which are known to have potential health impacts. The ready-mix plant associated with Suffolk Cement was identified by a community member as a potential source of hexavalent chromium and 1,4-dioxane; however, these contaminants are not linked to specific events in the area. The community has also been apprehensive of a fire training exercise at the subject property in June 2000 that was thought to have utilized fire suppressant foam, which is a potential source of PFAS. Based on these concerns regarding potential groundwater contamination, Alpha performed an analysis to determine the exact location of the fire training exercise and conducted research to determine whether fire suppressant foam was used during the exercise.

As discussed in **Section 2.2.1**, groundwater beneath the site contained PFOA and PFOS at levels above the EPA health advisory in both upgradient and downgradient areas of the subject property. This is a result of the East Hampton Airport and a portion of the East Hampton Industrial Park located directly upgradient of the subject property and within the recharge zone for groundwater passing beneath the site. Thus, elevated levels of PFOA and PFOS are not originating from the subject property and associated operations thereon. All metals and compounds of concern were all within drinking water standards. Iron and manganese were found in groundwater below the subject property at levels above the NYSDOH Part-5 drinking water limits. However, these elevated levels of metals in drinking water were consistent with

levels detected both upgradient and downgradient of the site. Iron concentrations were consistent with levels expected in ambient groundwater throughout Suffolk County.

Alpha's Environmental Assessment indicates that there is no evidence of impacts to groundwater or Georgica Pond as a result of operations at the subject property. Nutrient loading primarily from nitrogen and phosphorus (wastewater discharge) have been identified as the most important contributors to the degradation of Georgia Pond from harmful algal blooms. Although phosphorus was not reported in Con-Test's laboratory analysis, nitrate and chloride testing is an effective tool in assessing if there is nutrient loading at the site from sanitary discharge. Low concentrations of nitrates in groundwater beneath the site validates that the site is not the source of elevated nitrates in Georgica Pond.

The subject property experiences elevated PGAS and iron/manganese in the water table due to off-site and natural occurrences, respectively. To date, residences previously utilizing private wells that have been impacted by groundwater contamination from PFAS are now connected to a new municipal water system (Wainscott Water Supply District). It is anticipated that future uses at the site will be connected to the newly created Wainscott Water Supply District.

The most significant environmental concern as noted in Alpha's assessment, will be from point source discharges of nitrates to individual septic systems with leaching systems at each lot. The proposed septic systems will be I/A OWTS per Article 19 of the Suffolk County Sanitary Code and will meet all SCDHS and Town requirements and approvals. The use of I/A OWTS technologies at the subject property will reduce total nitrogen in treated effluent to 19 mg/l or less. Since buildout of the site will occur over a number of years and possibly decades, it is possible that future I/A OWTS at the subject property will treat nitrogen to well below the currently required 19 mg/l. Additional discussion of potential groundwater quality impacts and environmental impacts from Alpha's assessment can be found in **Section 2.3.2**.

SONIR

Nelson, Pope & Voorhis, LLC (NP&V) utilizes a microcomputer model developed for its exclusive use in predicting both the water budget of a site and the concentration of nitrogen in recharge. The model, named **SONIR** (**S**imulation **O**f **N**itrogen **I**n **R**echarge), utilizes a mass-balance concept to determine the nitrogen concentration in recharge. Critical to determining nitrogen concentration is a detailed analysis of the various components of the hydrologic water budget, including recharge, precipitation, evapotranspiration and overland runoff.

The **SONIR** model includes four sheets of computations: 1) Data Input Field; 2) Site Recharge Computations; 3) Site Nitrogen Budget; and 4) Final Computations. All information required by the model is input in Sheet 1. Sheets 2 and 3 utilize data from Sheet 1 to compute the Site Recharge and the Site Nitrogen Budget. Sheet 4 utilizes the total values from Sheets 2 and 3 to perform the final Nitrogen in Recharge computations. Sheet 4 also includes tabulations of all conversion factors utilized in the model.

It should be noted that the simulation is only as accurate as the data which is input into the model. An understanding of hydrologic principles is necessary to determine and justify much of the data inputs used for water budget parameters. Further principles of environmental science

and engineering are applied in determining nitrogen sources, application and discharge rates, degradation and losses, and final recharge. Users must exercise caution in arriving at assumptions in order to ensure justifiable results. There are a number of variables, values and assumptions concerning hydrologic principles that are discussed in detail in a user manual developed for the SONIR Model. This user manual is provided in **Appendix E-1**.

The SONIR model was run to obtain the existing water budget and nitrogen concentration in recharge at the site. The Existing Conditions model run was based on current site conditions of the 70.51 acre site and the existing uses. The 70.51-acre site currently has a total estimated site recharge of 29.41 million gallons per year (MG/Y), a total annual nitrogen load of 166.56 lbs/year, and a total nitrogen recharge concentration of 0.35 mg/l. The results of this analysis are presented in **Appendix E-2** and **E-3**.

Suffolk County Sanitary Code

Article 6 of the SCSC requires that individual subsurface sanitary systems may be approved by the SCDHS provided that the construction project located within GMZ V do not exceed a discharge rate of 300 gpd/acre. Per Article 6, individual on-site sanitary systems in GWZ V could be approved and employed if:

a. *the Population Density Equivalent is equal to or less than that of a Realty Subdivision or Development of Single-Family Residences in which all parcels consist of an area of at least 40,000 square feet; and*

b. *the Other Construction Project, or any portion thereof, is not located within an existing sewer district and is located in an area where subsoil and groundwater conditions are conducive to the proper functioning of Individual Sewerage Systems or Subsurface Sewage Disposal Systems; and*

c. *the Individual Sewerage System or Subsurface Sewage Disposal System complies with the Department's current standards and the minimum State requirements as set forth in 10 NYCRR, Part 75, to the extend applicable to Suffolk County.*

Based on the SCDHS design flow standards,[17] the population density equivalent for other construction projects location within GMZ III, V, or VI:

Subject Property (70.51 acres) x 300 gpd/40,000 SF = 528,832.5± gpd

Therefore, based on the SCDHS design flow standards and the size of the subject property, the population density equivalent is 528,832.5± gpd. This calculation is used to determine whether a project could employ on-site septic systems or if it would require additional sewage treatment infrastructure. If the Proposed Action's projected sewage generation exceeds this population density equivalent, sanitary waste would need to be treated by a sewage treatment plant. Project sewage generation for the Proposed Action is provided in **Section 2.3.2**. The

[17] Suffolk County Department of Health Services. *Standards for Approval of Plans and Construction for Sewage Disposal Systems for Other Than Single Family Residences.* Table 1, Project Density Loading Rates & Design Sewage Flow Rates (revised December 1, 2009).

wastewater design flow rate for general industrial projects is 0.04 gpd/SF[18] which includes up to 15 percent related office space.

Section 760-611.A specifies that projects other than conventional single-family residential realty subdivisions and developments require a community water supply system method when a project, or any portion thereof, is located within an existing water district or water service area. As previously noted, the subject property is within the service area of the SCWA, and currently obtains potable water from Distribution Area 23. It is anticipated that future developments at all lots will be connected to the newly created and expanded Wainscott Water Supply District, as further discussed in **Section 2.3.2**.

Article 7 of the SCSC aims to protect water resources "…from discharges of sewage, industrial and other wastes, toxic or hazardous materials and stormwater runoff…" and provides restrictions and prohibits certain discharges of such materials. This article generally requires that construction and/or modification of sewage disposal systems be subject to SCDHS permits, and stormwater runoff not be allowed to run overland and become contaminated. For deep recharge areas and water supply sensitive areas, Article 7 provides additional restrictions and prohibition for discharging restricted toxic or hazardous materials or industrials wastes to groundwater and disposal systems and restricting toxic or hazardous materials and details those activities which are excluded from such restrictions. The subject property is located in a deep recharge area as the site is within the GMZ V, therefore the following restrictions are applicable:

> *A. It shall be unlawful for any person to discharge any restricted toxic or hazardous materials or to discharge industrial wastes from any facility containing restricted toxic or hazardous materials to the groundwaters, to the surface of the ground, beneath the surface of the ground, to a municipal or communal sewage system, or to a disposal system except as follows:*
>
> 1. *application of fertilizers, pesticides or other agricultural chemicals approved for that purpose by the appropriate state and federal agencies; or*
> 2. *application of road surfacing or road construction materials or deicing salts to roadways, walkways, and parking areas*
>
> *B. It shall be unlawful to use or store any restricted toxic or hazardous materials on any premises except as follows:*
>
> 1. *a. the intended use of the product stored is solely for on-site heating, or intermittent stationary power production such as stand-by electricity generation or irrigation pump power; and*
>
> *b. the facility for such storage is intended solely for the storage of kerosene, number 2 fuel oil, number 4 fuel oil, number 6 fuel oil, diesel oil or lubricating oil; and*

[18] General industrial buildings may contain up to 15% related office space without applying a proportionate office density loading or flow rating to the space. If office space exceeds 15% of gross floor area, then a proportionate office density loading or flow rating must be applied to the entire office space.

c. the facility for such storage is constructed in accordance with the requirements of Article 12 of the Suffolk County Sanitary Code for new construction; and

d. the materials so stored are not industrial wastes from processes containing restricted toxic or hazardous materials; and

e. the materials stored are not intended for resale; or

2. a. for buildings with gross floor area of less than or equal to 20,000 square feet (s.f.), the materials so stored are in containers where the total liquid capacity stored at any time does not exceed 250 gallons and where the dry storage in bags, bulk or small containers does not exceed 2,000 pounds; and

b. for buildings with gross floor area greater than 20,000 square feet (s.f.), the materials so stored are in containers where the total liquid capacity stored at any time does not exceed 0.0125 gals/s.f. of gross floor area and where the dry storage in bags, bulk or small containers does not exceed 0.1 pounds/s.f. of gross floor area; and

c. for the purpose of determining quantity of allowable storage, the internal fluids within production machinery shall not be included; and

d. if storage of restricted toxic or hazardous materials at a facility exceeds 1250 gallons or 10,000 pounds dry storage, then an annual environmental audit is to be conducted of the property, buildings and appurtenances, and the audit will conform to any standards which may be promulgated by the Commissioner; or

3. the materials so stored are intended solely for treatment or disinfection of water or sewage in treatment processes located at the site; or

4. a. the materials are stored solely incident to office operations, or wholesale/retail sales on premises and are not processed, pumped, packaged, or repackaged at the site; and

b. for the purpose of these regulations, Office Operations means a place in which business, clerical or professional activities are exclusively conducted and there are no manufacturing or other industrial activities; and

c. wholesale storage shall be limited to 5-gallon maximum size containers and the total storage capacity shall not exceed the storage allowed under §760-706 B.2.b or 5,000 gallons or 40,000 pounds of dry storage in bags, bulk, or small containers, whichever is greater; or

5. a. the materials are stored at a service station or similar installation solely incident to the distribution of gasoline, kerosene, diesel oil or other petroleum products for motor vehicular uses and repair; and

b. the facility for such storage is constructed in accordance with the requirements of Article 12 of the Suffolk County Sanitary Code for new construction; or

6. *the materials are stored at an establishment for which a permit has been secured in accordance with §760-706.A.3, and a permit for such storage has been granted by the Department.*

7. *a. the materials are stored on a farm site solely incident to on-premises use, and consist of fertilizers, pesticides, or other agricultural chemicals to be applied in accordance with the provisions of §760-706.A.1.*

Article 12 of the SCSC is intended to address the storage and handling of toxic and hazardous materials in order to protect water resources from existing sources of contamination and prevent additional pollution from new sources. Section 760-1205 within Article 12 relates to the storage of fuel oil in underground/above-ground storage tanks and the storage of pesticides and associated materials. Specifically, §760-1205.E requires that no reactive toxic or hazardous materials be stored near one another in a fashion that could enable a reaction to occur in case of leakage, spillage or fire. Although the specific types of future development have not yet been determined, all future development at the subject property abide by all provisions presented in Article 12 of the SCSC and will obtain all necessary permits.

Article 19 of the SCSC establishes procedures to ensure that I/A OWTS are properly maintained and managed to provide intended levels of wastewater treatment. I/A OWTS are cost-effective and are environmentally sound alternatives to sewers in portions of Suffolk County that are outside of designated sewer areas. These systems also significantly reduce nitrogen and can reduce or eliminate other contaminants such as pharmaceuticals, personal care products and VOCs. Article 19 facilitates the development and use of I/A OWTS as both an environmental conservation measure and public health protection measure. This article grants the SCDHS the authority to devise measures to approve the use of innovative wastewater treatment systems throughout the County. SCDHS approved systems are technologies designed to reduce total nitrogen in treated effluent to a minimum of 19 mg/l. It is anticipated that all future developed lots will utilize I/A OWTS in accordance with Article 19 of the SCSC.

East Hampton Town Water Quality Improvement Plan (Updated February 2017)

The East Hampton Town Water Quality Improvement Plan ("Water Quality Improvement Plan") was prepared by the Town of East Hampton's Natural Resources Department as part of the Community Preservation Fund. The main goal of this plan is to protect and improve the environmental integrity of ecologically sensitive areas in the Town. Waterbodies and watersheds in the Town offer numerous benefits beyond providing recreational and open space, including serving the livelihoods of fishermen and a several other stakeholders. These valuable resources also provide major economic resources for tourism and replenishes the sole source aquifer system which is utilized by the Town for potable water and agricultural water. Additionally, these resources contain many state and federally listed endangered and threatened plants and animal species, as well as recreationally and commercially important wildlife.

Current local water quality issues include harmful algal blooms occurrences, decrease in water clarity, low dissolved oxygen levels resulting in potential fish kills, and excessive bacteria levels

that has led to shellfish contamination and beach closures. Nutrient loading primarily from nitrogen and phosphorus have been identified as the most important contributors to the degradation of surface waters with the largest contributors being urban stormwater runoff and cesspools and septic systems.

The Water Quality Improvement Plan examines various watersheds of concern in the Town that are targeted for water quality improvements including the Georgica Pond Watershed. For each watershed, this plan outlines the general characteristics, land use and infrastructure, soils and hydrology, existing water quality, completed and ongoing projects and water quality improvement recommendations, which are further discussed below.

Georgica Pond is a 290-acre coastal lagoon that is separated from the Atlantic Ocean by a natural 50 foot sandbar barrier and is moderately shallow with a maximum depth of 6± feet. The Ocean inlet is opened twice a year (in the spring and fall) to allow flushing and exchange of fresh and sea water, which is managed by the East Hampton Trustees who monitor a cycle of draining and replenishing the lagoon with ocean water. This inlet is also occasionally opened from severe storm events such as hurricanes. According to the Water Quality Improvement Plan, ongoing evaluation of environmental issues is being conducted on Georgica Pond by the Stony Brook University Gobler Laboratory and funded by the Friends of Georgica Pond Foundation. As noted in the plan, "[t]he project aims to evaluate nutrient sources to Georgica Pond through water quality monitoring and modeling, genetic and toxin analysis of algae in Georgica Pond, collection of continuous water quality monitoring, and recommend management strategies to restore Georgica Pond to a healthy condition". The Friends of Georgica Pond Foundation developed additional work for the remediation plan which includes the use of an aquatic weed harvester to remove macroalgae from the pond's surface, which is believed to store excessive nutrients. By removing macroalgae, there is a possibility that nitrogen and phosphorus will be drastically reduced. The Friends of Georgica Pond Foundation also advocate for installation of permeable reactive barriers on properties adjacent to the pond and more frequent opening of the pond to the ocean by dredging and removal of bottlenecks of sand and invasive Common Reed (*Phragmites australis*) in the Cove. The Georgica Pond water quality improvement recommendations include the following:

Wastewater Treatment

- *Residential cesspool/septic system upgrades to systems with nutrient removal*
- *Use a Commercial Areas Sewage District Analysis to complete a preliminary planning assessment and determine the feasibility for a community treatment system for the Village commercial districts*
- *Installation of PRB groundwater treatment system for nitrogen removal*
    - *Proposed location along Stone Road and Goose Creek Lane*
    - *Proposed location along Georgica Road and Georgica Close Road*

Non-Point Source Pollution Abatement

- *Cove Hollow stormwater pipe study and upgrade*

  - *Undertake an engineering study to determine the contributing areas, quantity of stormwater runoff entering the pipe and quality of stormwater that exists*
  - *Install additional drywells within the watershed to reduce the quantity of stormwater entering the pipe*
  - *Expand the existing Village program of installing filtering systems within stormwater drains to prevent sediments and debris from entering the pipe*
  - *Develop an end of pipe treatment system to treat stormwater before entering Georgica Cove for removal of runoff contaminants*
  - *Cove Hollow stormwater pipe study and upgrade*
- *Installation of shoreline buffers with native vegetation and infiltration systems to minimize direct runoff into the pond from Route 114 and the Village of East Hampton*
- *Maintain nature trail bottom lands to improve water circulation and sediment removal*
- *Implement agricultural BMPs for fertilizer and crop management*

Aquatic Habitat Restoration

- *Develop community based restoration projects*
- *Projects that enhance habitat for the fish and crabs formerly found in the pond*
- *Facilitate the protection and restoration of the seagrass population if the habitat is deemed restoration ready*
- *Implement invasive vegetation control and promote the growth of native plants*
- *Coordinate with the Village to target specific areas for dredging in accordance with the recommendations to remove nitrogen enriched sediments*

The majority of these recommendations require municipal actions and are geared toward implementation by the Town and the Village of East Hampton. However, a consistency of the Proposed Action with the pertinent recommendations is provided **in Section 2.3.2**. It should be noted that the subject property is not located within the "High Priority Areas" boundary depicted in the Georgica Pond Watershed figure within the plan but is within the watershed boundary.

East Hampton Town Trustees Water Quality Study (January 2017)

The East Hampton Town Trustees Water Quality Study ("Water Quality Study") was prepared by Christopher J. Gobler, PhD, of Stony Brook University School of Marine and Atmospheric Sciences for the Town Trustees to assess water quality, harmful algal blooms and pathogenic bacteria in the marine and freshwater bodies in the Town. The Water Quality Study included intensive sampling, was conducted between March 2016 and November 2016, and included an examination of Accabonac Harbor, Napeague Harbor, Hog Creek, Northwest Creek, Three-Mile Harbor, Georgica Pond and Hook Pond. This study specifically focused on Three Mile Harbor and Georgica Pond due to harmful algal blooms and low dissolved oxygen between 2013 and 2015. Sampling was conducted on a weekly basis for both Three Mile Harbor and Georgica Pond while the remaining waterbodies were sampled biweekly.

In previous years, Georgica Pond experienced a series of significant water quality impairments including hypoxia (low oxygen), fish kills, macroalgal blooms, and blue-green algal blooms. However, in 2016 these conditions were not observed, aside from a minor blue green algal bloom in July. Macroalgal harvest removal from the Pond or an unusual mahogany tide in May and June could be the reason for the 2016 conditions. As noted in this study, algae harvesting for much of the season contributed to biomass and nutrient removal which potentially prevented an outbreak of a blue-green algal bloom in Georgica Pond algae in 2016.

Sampling results indicated that fecal coliform values were well above the average shellfishing safety limit and *Enterococci*[19] bacterial levels at three sites demonstrated levels exceeding those recommended for swimming. High levels of *Enterococci* bacteria were observed on several dates between July and September, with the most frequent occurrences at the NYS Route 27 (Montauk Highway) kayak launch located proximate to the subject property. Furthermore, the greatest chlorophyll *a*[20] values measured throughout the Town were found in Georgica Pond. All four sample sites at Georgica Pond had average chlorophyll *a* concentrations drastically exceeding the 8 µg/L (micrograms per liter) USEPA eutrophic levels for freshwater bodies. The sample sites surpassed this level in early June and high levels persisted in Georgica Cove on October 13th, with a value of 74 µg/L.

Between May and June 2016, a new potentially harmful algal bloom known as a mahogany tide formed in Georgica Pond and across many south shore lagoons, as well as the Peconic River. This algal bloom was associated with extreme levels of turbidity or particulate matter in waters that impacted light penetration and productivity, which may have altered the growth of macroalgae. This alga has appeared to be associated with high nitrogen levels and can be harmful to some forms of marine life. Georgica Pond and Georgica Cove experienced dense blooms of the filamentous macroalga *Cladophora vagabunda* and subaquatic plant Sago Pondweed (*Stuckenia pectinate*) for much of the early summer in 2014 and in 2015, which was a nuisance for recreational use and shoreline cleanup. Mechanical algae harvesting was employed in 2016 as a mitigation measure which removed both nuisance species from the surface and subsurface of the pond.

The Georgica Pond inlet remained closed for most of the spring and summer during this study. The lowest measurement of dissolved oxygen was at the Route 27 kayak launch, which eventually dropped well below the NYSDEC's oxygen level limit to support survival and proliferation of fish, shellfish and wildlife. Dissolved oxygen sampling was then taken by a telemetry buoy located in the south end of the Pond which indicated that oxygen levels were within a healthy range. Oxygen concentrations only fell below the NYSDEC standards following the opening of the inlet possibly due to tidal exposure of mud flats and/or possible death of aquatic organisms.

[19] Bacteria found in the gastrointestinal tract in humans.
[20] A pigment that gives color to algae.

2.3.2 Potential Impacts

Surface Water and Drainage

There are no wetlands on-site or immediately adjacent to the site as determined by on-site field inspections and no natural or artificial wetlands on the property that are within NYSDEC or Town wetlands jurisdictions. However, the northwest Georgica Pond Tributary designated NYSDEC freshwater wetland is located within wooded land on the east side of Hedges Lane, southeast of the subject site. Given the setback to the nearest wetland (more than 350 feet from the site), construction activities associated with the Proposed Action and future construction activities on each lot as they become developed will not occur within 100 feet of a NYSDEC Article 24 wetland jurisdiction area.

The proposed subdivision is not expected to have any adverse impacts on surface water or drainage patterns. The existing site is a reclaimed sand mine and limited some commercial uses. As a result, the site drainage patterns have been modified by past site activities. Following the proposed subdivision, infrastructure improvements (roads, recharge and individual site development) will include proper grading and drainage controls, that do not currently exist on the site. This alteration of drainage pattern and volume of runoff generated on the site will ensure that stormwater is contained and recharged to groundwater. Runoff generated within the site will increase in terms of total volume due to an increase in impervious surfaces on-site including internal streets as well as the clearing of vegetation that absorb water and promote evapotranspiration on the currently vacant property. The Proposed Action, however, involves the retention of 7.61± acres of existing wooded land along the eastern and western portions of the site. Additionally, future uses will utilize surface bio-retention areas for stormwater treatment and open space at the rear of each individual site. This will serve as an additional stormwater treatment method and will ensure water quality protection through design elements consistent with current and innovative green infrastructure technologies. As a result, there will be pervious, natural and unfertilized/landscaped groundcover on the overall subject property that will help to recharge, absorb and transpire precipitation falling on the site. Given these conditions, adverse stormwater impacts are not anticipated.

Recharge introduced to the site will enter the water table and will eventually make its way to Georgica Pond, as the project site is located directly hydraulically upgradient of the Pond. As such, environmental design goals have been incorporated into the project to ensure best management practices (BMPs) for stormwater control and resulting groundwater protection in the Georgica Pond watershed. These BMPs include: installation of bio-retention areas for stormwater treatment/recharge; use of native vegetation in landscaping; and, zero (0) use of fertilizer on the subject site. Surface bio-retention areas (rain gardens) are planned to be installed on individual commercial sites. Landscaping associated with individual site plans will utilize all native species. Minimal use of fertilizer and temporary irrigation is planned, only upon installation and until plantings become established, after which no fertilizer or irrigation will be used for maintenance of established natural revegetation areas. Moreover, no pesticides/herbicides will be necessary or used at the site. Landscape plans for each lot would comply with the applicable Town requirements outlined in Chapter 220, Part 3, Article XIX of

the Town Code and will be submitted to the Planning Department on a lot-by-lot basis during the site plan review stage.

The Applicant plans to install a system of stormwater catch basins and leaching pools to recharge runoff from the subdivision roads planned for the site. Drainage for the subdivision roads are designed in accordance with the Town of East Hampton's stormwater management regulations which requires that all stormwater runoff generated on a development site be retained and recharged in an on-site drainage system designed to accommodate a five-inch rainfall event. All stormwater management systems will comply with the standards and specifications included in the New York State Stormwater Management Design Manual, which will be utilized to prepare the SWPPP. The SWPPP will be in accordance with the requirements for the General Permit for Stormwater Discharges from Construction Activity and Chapter 216 of the Town Code, *Stormwater Management and Erosion and Sediment Control*. Due to the deep well-drained soils and significant land area comprising the site, no issues relating to suitable permeability, filtering capacity, groundwater storage, and recharge of stormwater on-site are anticipated. Furthermore, future bio-retention areas will serve as an additional stormwater treatment method and will ensure water quality protection through design elements consistent with current and innovative green infrastructure technologies.

Erosion and sedimentation controls will also be put into place during site clearing, grading, and construction, thereby retaining sediment on the property and keeping it from being transported and deposited into street drainage systems or on to adjacent properties. Erosion control measures will be installed and maintained in accordance with the NYS Standards Specifications for Erosion and Sediment Control and Chapter 216 of the Town Code. BMPs will also be utilized in the Final Erosion and Sediment Control Plan. Dust controls and staging of water trucks to wet soils will also be employed as needed. Silt fencing would be installed around the limits of disturbance, and as necessary, and would be maintained throughout construction activities.

Clearing and grading required to install proposed infrastructure will leave soils temporarily exposed and vulnerable to erosion from wind and rain during the site preparation and construction processes. For this reason, a Final Erosion and Sediment Control Plan will be prepared in accordance with applicable NYSDEC Guidelines for Urban Erosion and Sediment Control, and will include the following mitigative measures as warranted:

- The construction process will begin with the establishment of flagged clearing limits where needed, followed by installation of erosion control measures.
- Silt fencing, staked hay bales, inlet protection, and good housekeeping procedures will be utilized where applicable.
- A stabilized construction entrance or "rumble strips" will be installed at the site entrance during site preparation and construction to prevent soil from adhering to truck tires and being tracked onto public streets.
- The drainage system will further provide permanent stormwater controls once construction is completed.

- Construction equipment and vehicles will be parked and loaded/unloaded within the site.

Future buildings and parking lots will alter drainage patterns and volume of runoff generated on-site. However, the specific details and timing of future development is currently unknown and will occur based on future market conditions. All future development will comply with the applicable CI zoning regulations including maximum permitted building coverage (50 percent) and total lot coverage (75 percent). In fact, the total estimated buildout prepared for this DEIS results in a reduced building coverage to 18.75 percent as a conservative estimate and to mitigate potential environmental impacts associated with future development. Site specific Erosion and Sediment Control plans will be developed on a case-by-case basis as future development occurs. Final Grading and Drainage Plans and Final Erosion and Sediment Control Plans will be prepared on a lot-by-lot basis as part of the site plan submission for future uses and will be designed by a professional engineer in accordance with applicable State and Town standards and will be subject to review and approval by the Town Engineer and Planning Board prior to plan approval. This review must ensure that the site drainage systems are properly designed to address runoff, that adequate capacity is provided and that the proposed structures minimize potential runoff issues to the maximum extent practicable.

As noted in the Alpha Environmental Assessment, there is no evidence of impacts to Georgica Pond by the subject property and elevated PFOA and PFOS are not originating at the site. Poor water quality is due to nutrient loading primarily by nitrogen and phosphorus which has been identified as the most important contributor to harmful algal blooms that have degraded Georgica Pond. Wastewater discharge is considered to be the primary source of nitrogen. Thus, Low-Nitrogen Sanitary Systems (I/A OWTS) will be installed on individual commercial sites on a lot-by-lot basis to significantly reduce nitrogen in effluent.[21] These systems will be installed in accordance with Article 19 of the SCSC, will meet all SCDHS requirements and obtain all necessary approvals, thus conforming with the Town's Low Nitrogen Sanitary System provisions in the Town Code. The use of I/A OWTS/Low Nitrogen Sanitary System technologies at the subject property will reduce total nitrogen in treated effluent to less than 19 mg/l and possibly lower as many existing approved systems are resulting in total nitrogen in effluent of well under the standard. In addition, since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced as future technologies improve.

Overall, the Proposed Action has been designed to minimize potential impacts to surface water, drainage and water resources (including groundwater) in general. Therefore, implementation of the proposed project is not expected to have a significant adverse impact on surface water or drainage conditions on or in the vicinity of the subject site.

[21] A sewage treatment plant (STP) to serve the subdivision is impractical as the development of individual lots is expected to occur over a long period of time and would not warrant or justify the expense or construction of an STP for intermittent, gradual flow associated with this long-term development.

Special Groundwater Protection Areas and Critical Environmental Area

Although not within a CEA, the subject property is bordered to the north and east by both the South Fork SGPA and the East Hampton Water Recharge Overlay District CEA. As the subject property is adjacent to these CEAs and are there are potential water quality impacts associated with any development, protective measures will be implemented such that no impact is expected with respect to these CEAs, particularly in recognition that the site is not within them. Further, it is noted that horizontal groundwater flow beneath the site is from northwest to southeast, away from these designated CEAs.

Potential impacts to these CEAs can result from on-site wastewater generation and disposal, fertilization of landscaping, pesticide applications and stormwater runoff and infiltration which can recharge pollutants that have been picked up from the ground surface and carried to surface waters or discharged into the ground which can leach into surface waters via underflow. Soil erosion, transport, and deposition into wetlands or surface waters, the most common stormwater pollutant during construction activities, can also affect surface waters if not properly controlled. The above-described processes can adversely affect surface water quality, dissolved oxygen concentrations, biological/ ecological communities (mostly fish and shellfish), and the recreational and economic uses and enjoyment of Georgica Pond.

BMPs will be implemented to reduce potential impacts on nearby CEAs. In addition, a comprehensive stormwater management system has been designed to accommodate all stormwater on-site. The stormwater management infrastructure is designed to provide adequate leaching and filtration of stormwater from the subdivision roads before recharge to groundwater. Stormwater from individual lots will utilize bio-retention/rain garden areas to the rear of each lot to capture and treat stormwater. Specifically, rain gardens will be designed to contain a 1.7 inch storm event, in addition to on-site drainage systems designed to accommodate a five-inch rainfall event. It should be noted that the Town Code requires capture of 2 inch, 24 hour rain event. As lots being constructed, additional space may be available to enlarge the rain gardens to reach the 2 inch rain event. However, lots can accommodate two additional drywells with 10 inch diameter at a depth of 6 feet to capture the remaining volume of water to exceed the 2 inch minimum event.

The design of these system provides water quality benefits through the processes of soil filtration, pollutant sequestration, chemical and biological processes that breakdown pollutants and subsurface dispersion. Furthermore, a SWPPP will be prepared in accordance with the requirements of the NYSDEC SPDES General Permit for Discharges from Construction Activities. In addition, while there is little concern from flooding or on-site drainage, erosion and sedimentation controls (including silt fencing and a stabilized construction entrance) will be implemented during site preparation and construction. Finally, advanced wastewater treatment systems (Low Nitrogen Sanitary Systems) would be installed at each lot and will reduce total nitrogen in treated effluent to 19 mg/l or less. These design features of the project, along with maintaining over 7 acres of land in its natural condition and using native plants as part of the landscaping program will combine to ensure that no significant water resource impacts and no impact to the adjoining CEAs will occur.

Groundwater Hydrology/Hydrogeology

Upon completion of initial grading of the subject property, it is anticipated that depth to groundwater throughout the interior of the subject property will range between 8 feet to 10 feet bgs. The permeable nature of the Upper Glacial deposits and surface soils at the site promote groundwater recharge and horizontal groundwater flow away from stormwater leaching pools and/or recharge areas. Though not expected based on soil borings, and the past mining of the site, if any restrictive soil layers are encountered within any proposed leaching area, this soil will be removed and replaced with clean fill of an appropriate soil texture to facilitate leaching and recharge. Consequently, it is not anticipated that the direction of horizontal flow of groundwater will be affected by the expected increase in localized recharge, as the overall slope of the water table controls this characteristic and localized effects from mounding would be expected to be isolated to the designated leaching areas with permeable soils.

There are no natural surface water bodies or wetlands on or immediately adjacent to the site that could be affected by an increase in recharge and the associated limited and localized hydrologic changes anticipated. However, Georgica Pond is the natural discharge area for the water table that flows from northwest to the southeast beneath the site, and any recharge introduced at the site will migrate toward Georgica Pond with groundwater flow. Therefore, careful consideration of landscape practice and sanitary systems must be taken into account as future uses occupy the subject property. As has been noted, landscaping will utilize native species and zero (0) use of fertilizer is proposed. Individual sites will incorporate bio-retention areas that will ensure water quality protection through design elements consistent with current and innovative technologies. Additionally, Low Nitrogen Sanitary Systems that will reduce total nitrogen in treated effluent to 19 mg/l or less are proposed to be installed at each lot as the individual sites are developed. Since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced.

The applicant will work with the Town and SCWA to reduce or conserve potable water use on the property by considering water efficient irrigation systems and by retaining an estimated 11 percent of wooded areas along the eastern and western property boundaries.

Groundwater Quality

The 2018 groundwater data for Distribution Area 23 provided in **Appendix D-5** indicated that iron levels exceeded the EPA's MCL during the 2017 calendar year, which is consistent with findings of the Alpha reports. Alpha also noted that concentrations of manganese at the subject property was found to be above NYSDOH drinking water standards. Both iron and manganese do not present health concerns; instead concerns are mostly related to aesthetics such as discoloration, poor taste or staining household fixtures if water is not treated and filtered. Despite the exceedances of the MCL for iron, this compound can and is easily and routinely removed as needed by water purveyors as part of typical water quality monitoring and treatment processes. Additionally, manganese can be treated in water by filters and is

easier to remove if iron is present. As the overall results indicated that nitrates, 1,4-dioxane and hexavalent chromium were within the USEPA and NYS drinking water standards, there is no further investigations or concerns warranted for these constituents.

Nitrate in groundwater can cause health effects in human infants when existing in very high concentrations and can cause eutrophication (over-enrichment) of wetlands, particularly tidal wetlands, which can affect dissolved oxygen concentrations in tidal surface waters and wetlands, leading to hypoxic or anoxic conditions that adversely affect fish and shellfish populations. Nitrate and nitrogen as nitrite were well below the drinking water standards of 10 mg/l in all of the ground water samples collected from the on-site monitoring wells. These results indicate that the subject property is not contributing to the degradation of Georgica Pond by nutrient loading of the water table. Nevertheless, future uses at the subject property will be required to install I/A OWTS/Low Nitrogen Sanitary Systems to provide nitrate treatment, thereby significantly reducing nitrate loading from the Proposed Action and elevated concentrations in the aquifer. Materials used for future landscaping and green infrastructure bio-retention areas will be non-fertilizer dependent to ensure that the species to be planted are native, well-adapted plantings that will eliminate the need for fertilization.

Based on the site yield described in **Section 1.3**, a total of 376,296± SF of building coverage may occur at the site at full buildout. This is significantly below the SCDHS allowable flow for conventional on-site sanitary systems and, therefore, individual on-site systems would be permitted to be installed at the subject. However, due to the subject property's proximity to Georgica Pond and currently concerns of groundwater quality throughout the Town, I/A OWTS/Low Nitrogen Sanitary System technologies will be installed at each lot to treat wastewater generated by future uses at the subject property. Therefore, any potential effects of on-site wastewater discharges will be minimized; particularly, nitrate loading that can adversely affect groundwater and surface water. As noted in the Alpha Environmental Assessment, the groundwater beneath the site was found to be relatively clean with no detections of herbicides, pesticides, hydrocarbons related VOCs and SVOCs. Additionally, Alpha determined that there is no evidence of impacts to groundwater as a result of past mining operations at the subject property. Tenants on the southern end of the subject property (Suffolk Cement and Southampton Masonry) utilize individual septic systems that contribute a small amount of nitrates to groundwater and will continue to occupy the site.

Although PFAS were discovered in groundwater beneath the subject property, the appearance of high levels of PFOA and PFOS on both upgradient and downgradient of the site suggests the source of these compounds are not originating from the site. Thus, the subject property, as well as the residential community surrounding the subject property have been impacted by the presence of these compounds in groundwater. Impacts are being addressed by connecting private wells to the newly created Wainscott Water District. As depicted on the Wainscott Water District map (see **Appendix C)**, there are existing water mains and new water mains along the streets surrounding the subject property (i.e., Old Montauk Highway, Montauk Highway, Hedges Lane and Wainscott Northwest Road). Development of all future lots at the subject property will include connection to the newly created water district, which would be the exclusive water supplier to the site.

Landscaping at the site will consist of native plant species that require fertilization only to become established, with no long-term fertilization proposed. This will eliminate this potential source of nitrate load from site development while also reducing irrigation demands. An estimated 7.61± acres of undisturbed vegetated buffers will be left along the eastern and western property boundaries which will retain natural recharge areas reduce the need for site landscaping and help to mitigate potential groundwater quality and quantity impacts through reduced irrigation needs.

Based on the foregoing, it is not anticipated that implementation of the Proposed Action or future uses at the subject property will pose any significant adverse impacts to water availability or water quality in the area.

Nitrogen in Recharge (SONIR Model Results)

Nitrogen in recharge is a critical water quality parameter for analysis given Long Island's sole source aquifer and subsurface outflow of groundwater to nearby surface waters. NP&V has exclusive use of the SONIR model which was run to obtain the existing water budget and nitrogen concentration in recharge at the site. **Appendix E-1** includes the SONIR model user guide which fully references the data inputs/assumptions, computations and results. This model is up-to-date in terms of incorporating the findings of the Long Island Nitrogen Action Plan and other relevant hydrologic/scientific studies to support the analysis. As noted in **Section 2.3.1**, the site currently has a total estimated site recharge of 29.41 MG/Y, a total annual nitrogen load of 166.56 lbs/year, and a total nitrogen recharge concentration of 0.35 mg/l **(Appendix E-2)**. The assessment of proposed conditions includes consideration of no fertilized landscaping, and use of I/A OWT/Low Nitrogen Sanitary Systems. Based on the full use of the site as described in **Section 1.3**, total estimated site recharge of 38.84 MG/Y, a total annual nitrogen load of 818.19 lbs/year, and a total nitrogen recharge concentration of 1.32 mg/l (see **Appendix E-3**).

It is important to note that the site is designed to generate the lowest possible nitrogen load, and falls far below any metric that would indicate an adverse nitrogen impact to groundwater. The allowable wastewater flow for the property based on Article 6 of the SCSC is 528,832.50 gpd, while the design flow for the project is 16,016 gpd, or 512,816.50 gpd less than the allowable flow for the site. As otherwise stated, the 16,016 gpd design flow represents 3.02 percent of the 528.832.50 gpd allowable wastewater flow for the property. The predicted nitrogen recharge concentration of 1.32 mg/l is less than the most stringent similar metric of 2.5 mg/l which would apply if the project were a Development of Regional Significance in the Central Pine Barrens, which it is not. An increase of 651.63 lbs/year of nitrogen equates to 1.79 lbs/day (less than 2 lbs/day), and is the lowest achievable nitrogen load in consideration of feasible development and technologies to be used on the property. It is noted that this is based on full buildout of the property as describe in **Section 1.3**, which will be dispersed across the site and will take years or even decade to complete. Nitrogen loads are determined based on the current I/A OWTS maximum discharge limitation of 19 mg/l, yet many systems currently treat to less than 10 mg/l and it is expected that treatment efficiencies will improve over time. Thus, the predicted nitrogen is conservative. The nitrogen management of the property is not

subject to a TMDL for nitrogen, but yet reduces nitrogen to the maximum extent practicable consistent with LINAP goals. As a result, no impact to groundwater or surface waters of Georgica Pond are expected as a result of nitrogen in recharge as a result of the proposed project.

Suffolk County Sanitary Code

Based on the SCDHS design flow standards and the size of the subject property, the population density equivalent is 528,832.5± gpd. As noted in **Section 1.3.5**, potential sanitary waste to be generated at the subject property at full buildout (including the retention of Suffolk Cement and Southampton Masonry) could be 16,016± gpd. Therefore, based on this estimate, future industrial uses at the subject property during at full buildout would comply with Article 6 of the SCSC as the overall site operations would not exceed the population density equivalent for construction projects other than single-family residences located within GMZ V.

Article 7, §760-706 B.5.a. and B.6.a., "Deep Recharge Areas and Water Supply Sensitive Area, states that "[i]t shall be unlawful to use or store any restricted toxic or hazardous materials on any premises [within these areas] <u>except</u> as follows:

i. The facility for such storage is constructed in accordance with the requirements of Article 12 of the Suffolk County Sanitary Code for new construction; or

ii. The materials are stored at an establishment for which a permit has been secured in accordance with §760-706.A.3, and a permit for such storage has been granted by the Department.

It should be noted that there are a number of additional exclusions provided in §760-706. However, as the specific details of future development are currently unknown, it is difficult to determine additional exclusions that would apply to the subject property. Therefore, all future uses will be required to comply with Article 7 requirements and acquire all applicable permits for storage of any restricted toxic or hazardous materials. Additionally, the Applicant and future uses will be subject to site plan approvals from the Planning Board and other agencies and at that time will coordinate with approving agencies to ensure the proper siting and resource protection methods.

Infrastructure improvements associated with the Proposed Action would include the installation of underground utilities, including public water and natural gas lines for the purposes of heating. Therefore, future uses would not store fuel on-site for heating purposes. At this time, specific types of future development have not yet been determined. However, should future uses require storage of chemicals or other hazardous materials, all materials will be handled in accordance with the relevant provisions of Article 12 of the SCSC, and all required permits will be secured, as needed.

In accordance with Article 19 of the SCSC, it is anticipated that all future developed lots will contain advanced sanitary wastewater treatment systems. The use of I/A OWTS technologies at the subject property would reduce total nitrogen in treated effluent to 19 mg/l or less.

Based on the foregoing, the Proposed Action and future development will comply with the applicable requirements of the SCSC.

East Hampton Town Water Quality Improvement Plan (Updated February 2017)

The Water Quality Improvement Plan main goal of this plan is to protect and improve the environmental integrity of ecologically sensitive areas in the Town. As such, noted in **Section 2.3.1**, the Georgica Pond Watershed is a watershed of concern in the Town and is targeted for various water quality improvements. This plan provides specific water quality improvement recommendations for Georgica Pond. The recommendations provided in this plan are direct actions to be undertaken by the Town or the Village of East Hampton. However, as the subject property is located approximately 575 feet northwest of Georgica Pond, some recommendations are pertinent to the Proposed Action and future development of the subject property:

- *Septic system upgrades to systems for commercial and municipal properties with nutrient removal*

  As indicated in this DEIS, future uses at the subject property will utilize Low Nitrogen Sanitary Systems to reduce total nitrogen in treated effluent to 19 mg/l or less. Systems will be installed at each lot as the site becomes developed in order to prevent possible impacts to Georgica Pond. Since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced. As a result, the project is consistent with this goal.

- *Require the use of organic fertilizers in the watershed*

  The proposed project will utilize all natural landscaping including native plants that are non-fertilizer and irrigation dependent. As a result, no fertilizer is proposed other than for short-term purposes during establishment of vegetation when organic fertilizer will be used. Long-term maintenance practices will eliminate fertilizer and irrigation use given the proposed installation of well-adapted native plants. As a result, the project is consistent with this goal.

- *Require the control of fertilizer applications near waterbodies*

  Landscaping at the site will consist of native, well-adapted plant species to eliminate the need for fertilization and encourage a low-maintenance and drought-tolerant landscape. It is anticipated that green infrastructure based on bio-retention areas to be installed by future uses will not require use of fertilizers except to establish native plant species. After plantings are established, no fertilization or irrigation will be necessary. Best management practices will be employed during installation of landscaping and bio-retention areas. As a result, the project is consistent with this goal.

- *Implement invasive vegetation control and promote the growth of native plants*

As noted above, landscaping at each lot will consist of native plantings that are well-adapted to eliminate the need for fertilizer and/or irrigation except during the initial grow-in period to establish the plantings. Invasive species along the northern portion of the subject property will be removed in order to accommodate future lots and native groundcover will be established across the site during the interim period after this reclamation and prior to development of individual lots. As a result, the project is consistent with this goal.

Therefore, based on review of the Water Quality Improvement Plan, the Proposed Action will establish and implement BMPs for site use to ensure consistency with this plan.

East Hampton Town Trustees Water Quality Study (January 2017)

The Water Quality Study prepared by Christopher J. Gobler, PhD does not provide specific recommendations, but instead, discusses the existing water quality at Georgica Pond. As described in **Section 2.3.1**, high nitrogen levels in the pond have caused algal blooms. Although certain mitigation measures have been employed to remove nuisance species from the pond, nitrogen from wastewater is still a concern in the Town. As outlined in the prior sections and **Section 2.3.3** below, there are a number of mitigation measures in place for the Proposed Action and future developments to reduce potential significant adverse impacts to groundwater and downgradient surface waters of Georgica Pond and water resources in general. Therefore, the Proposed Action and future uses will be consistent with the intent of the Water Quality Study.

Based on the preceding assessment of surface waters, wetlands, groundwater hydrology and groundwater quality, and in consideration of the available impact mitigation techniques proposed, no significant adverse impacts on the quality of these important resources are anticipated.

2.3.3 Mitigation

- The site's drainage system will be designed in accordance with Town drainage requirements to contain a 5-inch design storm and will be subject to review and approval by the Town Engineer and Planning Board. Leaching pools are proposed for the subdivision road in conformance with this requirement.
- As individual sites are developed, green infrastructure in the form of bio-retention/rain garden areas will be established in the rear of lots for individual site stormwater treatment/management.
- Future uses will utilize Low Nitrogen Sanitary Systems to reduce total nitrogen in treated effluent to 19 mg/l, in accordance with Article 19 of the SCSC and Town Code requirements.
- Future uses will be designed to conform to Article 6, "Realty Subdivisions, Developments and Other Construction Projects," of the SCSC regulations, which is intended to protect groundwater quality; Article 7, "Water Pollution Control," which is intended to protect

water resources from discharges of sewage, industrial and other wastes; and Article 12 "Toxic and Hazardous Materials Storage and Handling Controls," which is intended to prevent additional pollution from new sources.

- The subject project will connect to the local SCWA water supply to ensure a potable water supply is available to future uses.
- Approximately 7.61± acres of wooded land along the eastern and western property boundaries will remain, thereby limiting total landscaping coverage. Native landscape species and surface bio-retention areas will be used to eliminate the need for fertilization and irrigation after establishment of plantings.
- Precautions will be taken to ensure sediment will not be transported off-site by wind, stormwater runoff or vehicle tracking and strict conformance to grading and erosion and sedimentation control measures and permit requirements will occur during construction activities
- A SWPPP will be prepared to ensure compliance with water quality and quantity requirements pursuant to Technical Guidance and GP-0-15-002 and Town requirements. In addition, an erosion control plan will be prepared incorporating the NYSDEC Guidelines for Urban Erosion and Sediment Control.

2.4 Ecology

2.4.1 Existing Conditions

Vegetation

The project site consists of large areas of disturbance associated with former sand-mining and a thin perimeter of wooded areas. Commercial and industrial buildings are present on the southeastern portions of the site proximate to Montauk Highway and Old Montauk Highway. Areas surrounding the buildings proximate to the roadways at the southern portions of the site are active commercial activities. Vegetation in these areas is sparse. The portions of the site farther north from the roadways consist of unmaintained cleared land that has been dominated by pioneer, successional vegetation, including multiple invasive species. The periphery of the site contains mature wooded areas with fully-grown tree species, especially at the northern, eastern and western borders.

The project site is surrounded primarily by sparsely-developed residences with larger areas of undeveloped woodlands to the east and west. Commercial properties are also present to the east and west of the project site along Montauk Highway and Old Montauk Highway. Residences with additional woodlands are located south of Montauk Highway. The LIRR tracks are present abutting the property to the north followed by several commercial and industrial buildings, and the East Hampton Airport complex, inclusive of the runways. Georgica Pond, a Scenic Area of Statewide Significance[22] is located adjacent to the southeast of the project site.

The 70.51±-acre subject parcel was inspected on December 19, 2018 and August 1, 2019. Qualifications of NP&V staff that inspected the subject parcel are included in **Appendix F-1**. The predominant cover types found at the site can be categorized as successional old field and pitch pine-oak forest as defined by the classification system developed by the NYSDEC **(Edinger *et al.*, 2013).** The existing site habitat quantities as determined by aerial photography and field inspections by NP&V are presented in **Table 2-7. Figure 2-9** provides a habitat map of the subject property. Below is a detailed description of the habitat types found on site along with a list of species present or expected on the site.

Edinger (2013) defines successional old field as "*a meadow dominated by forbs and grasses that occurs on sites that have been cleared and plowed (for farming or development), and then abandoned. Fields that are mowed at an interval (e.g., less than once per year) that favors reproduction of characteristic successional old field species are included here. Characteristic herbs include goldenrods (solidago altissima, S. nemoralis, S. rugosa, S. juncea, S. canadensis and Euthamia graminifolia), bluegrasses (Poa pratensis, P. compressa), timothy (Phleum pretensis), quackgrass (Elymus repens), smooth brome (Bromus inermis), sweet vernal grass (Dactylis glomerate), common chickweed (Cerastium arvense), common evening primrose*

[22] East Hampton Scenic Areas of Statewide Significance, New York Department of State, Division of Coastal Resources. https://www.dos.ny.gov/opd/programs/pdfs/SASS_Report20081229_All.pdf

(Oenothera biennis), old-field cinquefoil (Potentilla simplex), calico aster (Sympyotrichum novae-angliae), wild strawberry (Fragaria virginiana), Queen-Anne's-lace (Daucus carota), ragweed (Ambrosia artemisiifolia), hawkweeds (Hieracium spp.) dandelion (Taraxacum officinale), and ox-tongue (Picris hieraciodies). Shrubs may be present, but collectively they have less than 50% cover in the community." The central portions of the site, located northwest of the buildings, are representative of the successional old-field community. Dominant species include Sweet Goldenrod (*Solidago odora*), Broomsedge (*Andropogon virginicus*), Common Reed (*Phragmites australis*), Crabgrasses *(Digitaria spp.*) and Ragweed (*Ambrosia artemisiifolia*).

Edinger (2013), defines pitch pine-oak forest as "*a mixed forest that typically occurs on well-drained, sandy soils of glacial outwash plains or moraines; it also occurs on thin, rocky soils of ridgetops. The dominant trees are pitch pine (Pinus rigida) mixed with one or more of the following oaks: scarlet oak (Quercus coccinea), white oak (Q. alba), red oak (Q. rubra), or black oak (Q. velutina). The relative proportions of pines and oaks are quite variable within this community type. Examples can range from having widely spaced pines that are often emergent above the oak canopy to a nearly pure stand of pines with only a few widely spaced oak trees. The shrub layer is well-developed with scattered clumps of scrub oak (Quercus ilicifolia) and a nearly continuous cover of low heath shrubs such as lowbush blueberries (Vaccinium pallidum, V. angustifolium) and black huckleberry (Gaylussacia baccata). The herbaceous layer is relatively sparse; characteristic species are bracken fern (Pteridium aquilinum var. latiusculum), wintergreen (Gaultheria procumbens), and Pennsylvania sedge (Carex pensylvanica)."* The wooded areas that occur on the edges of the project site are all representative of the pitch pine-oak forest community. Dominant canopy species observed include Pitch Pine (*Pinus rigida*), Red Oak (*Quercus rubra*) and Scarlet Oak (*Quercus coccinea*). Other species found on site include Eastern Red Cedar (*Juniperus virginiana*), and American Wintergreen (*Pyrola americana*). The shrub layer was noted to be very sparse, with few species noted. The pitch pine-oak forest observed at the northern portions of the project site should be considered of lower quality than the areas at the eastern and western portions of the site. The northern portions consist of a higher concentration of invasive species (e.g., Japanese Knotweed) compared to its eastern and western counterparts, due to its proximity to the railroad tracks and likely higher incidence of disturbance.

In addition to the above, small transition areas between the pitch-pine oak forest and successional old field are present. These areas consist primarily of Pitch Pine saplings and Gray Birch (*Betula populifolia*) as well as non-native invasive species including Common Reed, Japanese Knotweed (*Fallopia japonica*), and Garlic Mustard (*Alliaria petiolata*). The presence of Common Reed is likely related to low-lying disturbed areas that occur within the former sand-mining portions of the site and collect silt and water from rain events as was observed during the December 19, 2018 and August 1, 2019 field visits. Temporary ponded water and disturbance conditions at these locations sustains Common Reed, a highly invasive species of reed which is typically found in disturbed upland areas and aquatic habitats.

Several terrestrial cultural habitats, as defined by the aforementioned NYSDEC classification system, were also observed during the field visits. The terrestrial cultural subsystem includes communities that are either created and maintained by human activities or are modified by human influence to such a degree that the physical conformation of the substrate, or biological composition of the resident community is substantially different from the character of the substrate or community as it existed prior to human influence. Portions of the site have been utilized for commercial/industrial processes including sand mining and/or materials storage. As such, these portions of the site best fit the description of the sand mine community. A small area on the east-central portions of the project site were observed to be utilized for the storage of nursery plants. Plants were observed in neat rows and best fit the description of the flower/herb garden community. All such nursery plants have been removed from the site. The areas immediately surrounding the buildings can best be described as an urban structure exterior community. Finally, unpaved parking areas associated with the buildings as well as the unpaved access roads providing access to the rear portions of the site can best be described as an unpaved road/path community. Overall, vegetation is sparse in these areas and consists mostly of pioneer species and low-growing "weedy" species.

TABLE 2-7
HABITAT QUANTITIES
Existing Conditions

Coverage Type	Existing	
	Acres	% of site
Pitch pine-oak forest	9.20	13.05%
Sand mine	16.16	22.9%
Successional old field	37.05	52.55%
Unpaved road/path	4.38	6.22%
Paved road/path	2.94	4.17%
Urban structure exterior	0.78	1.11%
TOTAL	**70.51**	**100.00%**

Table 2-8 presents a list of vegetation observed on site during field investigations conducted by NP&V on December 19, 2018 and August 1, 2019. This list is not meant to be all-inclusive but was prepared as part of a field inspection to provide a detailed representation of what is found on site. Care was taken to identify any species that might be unusual for the area.

TABLE 2-8
PLANT SPECIES WITHIN THE SITE

Common Name	Scientific Name	Stratum
Upland Bent	*Agrostis perennans*	Herb
Tree-of-heaven	*Ailanthus altissima*	Shrub/Tree
Garlic Mustard [i]	*Alliaria petiolate*	Herb
Ragweed	*Ambrosia sp.*	Herb
Broomsedge	*Andropogon virginicus*	Herb
Mugwort [i]	*Artemisia vulgaris*	Herb

Common Milkweed	*Asclepias syriaca*	Herb
Aster	*Aster sp.*	Herb
Gray Birch	*Betula populifolia*	Herb
Hedge Bindweed	*Calystegia sepium*	Herb
Asiatic Bittersweet [i]	*Celastrus orbiculatus*	Vine
Striped Wintergreen	*Chimaphila maculata*	Herb
Chicory	*Cichorium intybus*	Herb
Canada Thistle	*Cirsium arvense*	Herb
Bull Thistle	*Cirsium vulgare*	Herb
Yellow Nutsedge	*Cyperus esculentus*	Herb
Scotch Broom [i]	*Cytisus scoparius*	Shrub
Jimsonweed	*Datura stramonium*	Herb
Queen Anne's Lace	*Daucus carota*	Herb
Crabgrasses	*Digitaria spp.*	Herb
Autumn Olive [i]	*Elaeagnus umbellata*	Shrub/tree
Philadelphia Fleabane	*Erigeron philadelphicus*	Herb
Japanese Knotweed [i]	*Fallopia japonica*	Shrub
American Wintergreen	*Gaultheria procumbens*	Herb
Black Huckleberry	*Gaylussacia baccata*	Shrub
Honey Locust	*Gleditsia triacanthos*	Tree
Juniper	*Juniperus sp.*	Shrub
Eastern Red Cedar	*Juniperus virginiana*	Tree
Bird's-foot Trefoil [i]	*Lotus corniculatus*	Herb
Common Evening-primrose	*Oenothera biennis*	Herb
Common Yellow Woodsorrel	*Oxalis stricta*	Herb
Virginia Creeper	*Parthenocissus quinquefolia*	Vine
Mile-A-Minute Weed [i]	*Persicaria perfoliata*	Vine
Common Reed	*Phragmites australis*	Herb
Pokeweed	*Phytolacca decandra*	Shrub
Norway Spruce	*Picea abies*	Tree
Pitch Pine	*Pinus rigida*	Shrub/tree
White Pine	*Pinus strobus*	Tree
Broadleaf Plantain	*Plantago major*	Herb
Plane Tree	*Platanus sp.*	Tree
Scarlet Oak	*Quercus coccinea*	Tree
Red Oak	*Quercus rubra*	Tree
Black Oak	*Quercus velutina*	Tree
Black Locust	*Robinia pseudoacacia*	Tree
Wineberry [i]	*Rubus phoenicolasius*	Vine
Sassafras	*Sassafras albidum*	Shrub/Tree
Giant Foxtail	*Setaria faberi*	Herb

Sweet Goldenrod	*Solidago odora*	Herb
Goldenrod	*Solidago sp.*	Herb
Arborvitaes	*Thuja sp.*	Shrub
Red Clover	*Trifolium pratense*	Herb
White Clover	*Trifolium repens*	Herb
Highbush Blueberry	*Vaccinium corymbosum*	Shrub
Moth Mullein	*Verbascum blattaria*	Herb
Common Mullein	*Verbascum thapsus*	Herb
Blue Vervain	*Verbena hastata*	Herb

[i]NYS invasive species (no legal status)

Wildlife

Site inspections were performed on December 19, 2018 and August 1, 2019 by NP&V staff. A number of animal species were observed on site including an Eastern Gray Squirrel (*Sciurus carolinensis*), Red Fox (*Vulpes vulpes*) and several songbird species. It is expected that the woodland and terrestrial cultural habitats on the property should support a number of wildlife species common to suburban habitats, particularly those species that are more tolerant of human activity. Species that avoid humans and/or those species that are sensitive to development or require specialized habitats are less likely to inhabit the site. The following paragraphs describe the wildlife observed or expected on site.

Birds- Avian species which might be expected on the property include a variety of woodpeckers, wrens, titmice, nuthatches, thrushes, creepers, flycatchers, swallows, corvids, thrashers, orioles and blackbirds, doves, starlings, finches, towhees and sparrows. These species would be expected in higher abundance within the wooded areas on the periphery of the site, though some may utilize the successional old field portions of the site for foraging and/or hunting.

During the warmer months, a variety of warblers may also migrate into the area. Owls and raptors may use the site for hunting and limited numbers may breed in the surrounding areas. The subject site is not expected to be critical habitat for any avian species utilizing the site.

During the December 19, 2018 site visit, an American Crow, Blue Jay, American Goldfinch, Red-tailed Hawk, sparrow species, White-Breasted Nuthatch and gull (Larus sp.) were seen and/or heard. In addition, during the August 1, 2019 site visit, a Barn Swallow, Tree Swallow, Song Sparrow, Mourning Dove, Northern Mockingbird, American Goldfinch, House Wren, Pine Warbler, and Tern (Strerna sp.)[23] were seen and/or heard. In order to provide a more detailed representation of the avian species potentially present on site, the NYS Breeding Bird Atlas was reviewed to obtain data from the 2000-2005 Breeding Bird Survey for the census block

[23] Based upon a review of site conditions, it was determined that the habitat requirements of any Tern species are not sufficiently met at the project site; therefore, the presence of the tern is determined to likely be transient in nature.

encompassing the subject parcel (**Appendix F-2)**. This study surveyed the entire State by 25 km² census blocks over a five-year period (2000 to 2004) to determine the bird species which breed within the State. Most of the species listed by the NYSDEC breeding bird survey are likely to be found on site; however, it should be noted that the census blocks cover a large expanse and not all the habitats found within the census block are present at the site. Species listed by the NYS Breeding Bird Atlas that are highly unlikely to utilize the site (e.g., water-dependent birds) were removed from the list below. No unique species or species of special concern are expected on this given the immediate surrounding site uses.

TABLE 2-9
BIRD SPECIES

Red-winged Blackbird	*Agelaius phoeniceus*
Ruby-throated Hummingbird	*Archilochus colubris*
Tufted Titmouse	*Baeolophus bicolor*
Cedar Waxwing	*Bombycilla cedrorum*
Canada Goose	*Branta canadensis*
Great Horned Owl	*Bubo virginianus*
*Red-tailed Hawk	*Buteo jamaicensis*
Whip-poor-will	*Caprimulgus vociferus*
Northern Cardinal	*Cardinalis cardinalis*
House Finch	*Carpodacus mexicanus*
Hermit Thrush	*Catharus guttatus*
Brown Creeper	*Certhia americana*
Chimney Swift	*Chaetura pelagica*
Killdeer	*Charadrius vociferus*
Yellow-billed Cuckoo	*Coccyzus americanus*
Northern Flicker	*Colaptes auratus*
Northern Bobwhite	*Colinus virginianus*
Eastern Wood-Pewee	*Contopus virens*
*American Crow	*Corvus brachyrhynchos*
Fish Crow	*Corvus ossifragus*
*Blue Jay	*Cyanocitta cristata*
Yellow Warbler	*Dendroica petechia*
*Pine Warbler	*Dendroica pinus*
Gray Catbird	*Dumetella carolinensis*
Willow Flycatcher	*Empidonax traillii*
Common Yellowthroat	*Geothlypis trichas*
*Barn Swallow	*Hirundo rustica*
Baltimore Oriole	*Icterus galbula*
Orchard Oriole	*Icterus spurius*
Eastern Screech-Owl	*Megascops asio*
Red-bellied Woodpecker	*Melanerpes carolinus*
Wild Turkey	*Meleagris gallopavo*
*Song Sparrow	*Melospiza melodia*
*Northern Mockingbird	*Mimus polyglottos*

Brown-headed Cowbird	*Molothrus ater*
Great Crested Flycatcher	*Myiarchus crinitus*
Black-crowned Night- Heron	*Nycticorax nycticorax*
Osprey	*Pandion haliaetus*
*House Sparrow	*Passer domesticus*
Ring-necked Pheasant	*Phasianus colchicus*
Downy Woodpecker	*Picoides pubescens*
Hairy Woodpecker	*Picoides villosus*
Eastern Towhee	*Pipilo erythrophthalmus*
Scarlet Tanager	*Piranga olivacea*
Summer Tanager	*Piranga rubra*
Black-capped Chickadee	*Poecile atricapillus*
Blue-gray Gnatcatcher	*Polioptila caerulea*
Common Grackle	*Quiscalus quiscula*
Eastern Phoebe	*Sayornis phoebe*
American Woodcock	*Scolopax minor*
Ovenbird	*Seiurus aurocapilla*
Eastern Bluebird	*Sialia sialis*
*White-breasted Nuthatch	*Sitta carolinensis*
*American Goldfinch	*Spinus tristis*
Chipping Sparrow	*Spizella passerina*
*Tern Species	*Sterna Sp.*
*European Starling	*Sturnus vulgaris*
*Tree Swallow	*Tachycineta bicolor*
Carolina Wren	*Thryothorus ludovicianus*
Brown Thrasher	*Toxostoma rufum*
House Wren	*Troglodytes aedon*
American Robin	*Turdus migratorius*
Eastern Kingbird	*Tyrannus tyrannus*
Blue-winged Warbler	*Vermivora pinus*
Warbling Vireo	*Vireo gilvus*
White-eyed Vireo	*Vireo griseus*
Red-eyed Vireo	*Vireo olivaceus*
*Mourning Dove	*Zenaida macroura*

*Species observed on site by NP&V staff during field visits.

Mammals - During the site visit conducted on December 19, 2018 an Eastern Gray Squirrel was observed on the subject property. During the August 1, 2019 site visit, a Red Fox was observed on the subject property. In addition, evidence of White-tailed Deer (*Odocoileus virginianus*) was noted, including footprints and deer paths throughout the site, during both inspections. The habitats found on the proposed project site are expected to support a number of mammal species. Small rodents and insectivores such as mice, shrews and voles as well as squirrels are expected to be the most abundant mammals, but the property and surrounding area should also support larger mammals, though likely in reduced numbers.

Table 2- 10 is a list of the mammal species that have the potential to occur on the property because of existing conditions on-site and in the surrounding area. This list is not meant to be all-inclusive but is intended to provide a list of the most common species.

TABLE 2- 10
MAMMAL SPECIES

Big-brown Bat	*Eptesicus fuscus*
Hoary Bat	*Lasiurus borealis*
Keen's Bat	*Myotis keenii*
Little-brown Bat	*Myotis lucifugus*
Red Bat	*Lasiurus borealis*
Eastern Pipistrelle	*Pipistrellus subflavus*
Silver-haired Bat	*Lasionycteris noctivagans*
Eastern Chipmunk	*Tamis striatus*
Eastern Cottontail	*Sylvilagus floridanus*
White-tailed Deer	*Odocoileus virginianus*
*Red Fox	*Vulpes vulpes*
Eastern Mole	*Scalopus aquaticus*
House Mouse	*Mus musculus*
Meadow-jumping Mouse	*Zapus hudsonicus*
White-footed Mouse	*Peromyscus leucopus*
Virginia Opossum	*Didelphis virginiana*
Racoon	*Procyon lotor*
Masked Shrew	*Sorex cinereus*
Short-tailed Shrew	*Blarina breuicauda*
*Eastern Gray Squirrel	*Sciurus carolinensis*
Pine Vole	*Microtus pinetorum*
Woodchuck	*Marmota monax*
Pine Mouse	*Pitymys pinetorum scalopsoides*

* Species observed on site by NP&V staff

Amphibians and Reptiles - The site may support a limited number of terrestrial herpetofauna species; however, not amphibians or reptiles were observed during the field inspection. Two toads are common on Long Island in upland habitats. The Eastern Spadefoot Toad occurs in woods, shrublands and fields with dry, sandy loam soils, and breeds in temporary pools **(Behler and King, 1979)**. The Fowler's Toad prefers sandy areas near marshes, irrigation ditches and temporary pools. These species are the most likely amphibians to be present on the site. Additional species that would be expected based on site habitat are included in the species list (below) in order to fully account for potential impacts to same.

Several species of reptiles might potentially be found on the property, including the Eastern Garter Snake, and Eastern Milk Snake (**Wright, 1957**). These species are terrestrial species found in a variety of habitats. The Garter Snake is relatively tolerant of human activity but prefers moist soils. The Milk Snake is found in soils of varying moisture content. These snakes are all colubrid snakes, which feed on whole animals such as worms, insects or small

amphibians (**Behler and King, 1979**). The larger Milk Snake will also take small rodents and birds (**Behler and King, 1979**).

The only turtle species common to terrestrial habitats on Long Island (although listed in New York State as a species of special concern) is the Eastern Box Turtle, which requires very little water (**Obst, undated**). The species is found in a variety of habitats but prefers moist woodlands. The Eastern Box Turtle feeds primarily on slugs, earthworms, wild strawberries and mushrooms (**Behler and King, 1979**).

Table 2-11 presents a list of reptile species that might occur on site given the existing habitats. This list is not intended to be all-inclusive but provides a detailed representation of what is or is likely to be found on site.

TABLE 2-11
REPTILE AND AMPHIBIAN SPECIES

Amphibians	
Common Gray Treefrog	*Hyla versicolor*
Fowler's Toad	*Bufo woodhousei fowleri*
Red-backed Salamander	*Plethodon cinerus cinerus*
Eastern Spadefoot Toad	*Scaphiopus holbrooki*
Reptiles	
Eastern Hognose Snake	*Heterodon platyrhinos*
Eastern Milk Snake	*Lampropettis d. triangulum*
Eastern Box Turtle	*Terrepene carolina*
Eastern Garter Snake	*Thamnophis sirtalis*

* Species observed on site by NP&V staff

Rare and Endangered Species/Unique Habitat Potential

The N.Y. Natural Heritage Program (NYNHP) (ECL 9-1503) was contacted to determine if there is any record of rare plants, habitats or wildlife in the vicinity. The Natural Heritage Program has no records of endangered or threatened plant species on or within the vicinity of the subject property. NYNHP has no known occurrences of state-listed animals or insects on or in the vicinity of the subject site (**Appendix F-3**).

It should be noted; however, that the NYNHP indicates the presence of a special concern animal species within the vicinity of the project site, the Coastal Barrens Buckmoth (*Hemileuca maia ssp. 5*). According to the NYNHP Conservation Guide for the Coastal Barrens Buckmoth, the species typically lays its eggs around the twigs of scrub oak (*Quercus ilicifolia*) or occasionally other species of shrubby oaks. No scrub oak was observed during the site inspection. In addition, the pitch pine-oak forest was observed to have a poorly developed understory, with little vegetation within the shrub layer of the habitat. Given the lack of host species for the moth, this species is not expected to be present on the site. In addition, special concern species are native species which are not recognized as endangered or threatened, but for which there is documented concern about their welfare in New York State as a whole. Unlike threatened or endangered species, species of special concern receive no additional legal protection under Environmental Conservation Law Section 11- 0535. This category is intended to enhance public awareness of those species which deserve additional attention.

Georgica Pond

As previously indicated, Georgica Pond is located adjacent to the southeast of the subject property. This water body is considered a Scenic Area of Statewide Significance and is located adjacent to the southeast and hydrologically downgradient of the project site. This pond is considered environmentally sensitive and ecologically rare. Development activities at the project site have the potential to impact Georgica Pond given its proximity and hydraulically upgradient location with respect to groundwater flow.

The pond is categorized by the NYSDEC as a coastal salt pond (**Edinger *et al.*, 2013**). **Edinger (2013)** defines coastal salt ponds as "*A community inhabiting marine shoreline lakes or ponds formed by sandspits that close off a lagoon or bay. The water typically averages brackish or slightly brackish over long periods of time, but may range rapidly from fresh to saline. Occasionally the barrier beach is broken by hurricanes and the pond becomes saline until the sandspit closes the pond again. Many ponds have permanent (natural or artificial) inlets*."

In addition to the description, **Edinger (2013)** provides a rank of relative rarity of a habitat. The ranks are provided on a global and New York State Scale. These ranks carry no legal weight but are believed to accurately reflect the relative rarity given of the habitat. The coastal salt pond community carries a rank of G4 S1S2[24]. A global ranking of G4 indicates that a habitat is apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery. A state ranking of S1 indicates that a habitat has typically five or fewer occurrences, very few remaining individuals (for species), acres, or miles of stream, or some factor of its biology and/or ecology making it especially vulnerable in New York State. A state ranking of S2 indicates that a habitat has typically six to 20 occurrences, few remaining individuals (for species), acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.

In addition to the natural breaching of the barrier beach, Georgica Pond is typically also mechanically opened twice a year by the East Hampton Town Trustees to manage flood levels and promote water quality.

Water quality within the pond has declined due to surrounding development and the associated wastes, including sanitary wastes and fertilizers (e.g., nitrogen and phosphorus) and has led to microalgae blooms, low oxygen levels and fish kills.

Georgica pond provides an estuarine system and is important to anadromous fish[25], especially bait fish. Blue crab (*Callinectes sapidus*) is also present in the pond and was formerly the main target of shellfishing in the area. Recent water quality studies have determined that shellfishing is no longer safe in the waters due to pathogens, and same has been banned.

[24] Two rankings are utilized when a consensus cannot be reached for a particular habitat. The two ranking indicate that the habitat may be as rare as the lowest number or as common as the highest number.

[25] An anadromous fish species is one that is born in fresh water and spends most of its life in marine waters, returning to freshwater only to spawn.

According to the Friends of Georgica Pond Foundation and citizen science observations (via eBird.org), 82 species of birds have been observed within and proximate to Georgica Pond, 70 of which are reportedly found year-round in all years. The pond and associated sand spit/beach represent valuable habitat for shorebird species, including the Piping Plover (*Charadrius melodus*) which is listed by as endangered by New York State and threatened by the federal government. Additional birds of note and various state protections observed in the pond and associated environment include Common Loon (*Gavia immer*), Least Tern (*Sternula antillarum*), and Common Tern (*Sterna hirundo*).

2.4.2 Potential Impacts

Vegetation

The impacts to the ecological resources of a site are generally a direct result of clearing of vegetation, increase in human activity and associated wildlife stressors, and the resulting loss and fragmentation of wildlife habitat. The majority of the site consists of herbaceous successional vegetation with treed areas only existing along the site edges. Based upon the current project plans, the existing pitch-pine oak forest at the eastern and western portions of the property will not be cleared and will continue to function as a buffer between the project site and surrounding properties. These areas represent the highest quality areas of vegetation within the project site. Although the northern treed portions of the site may be partially or wholly cleared; invasive species (e.g., Japanese knotweed) were noted in this area due to its proximity to the railroad tracks and likely higher rate of disturbance.

The majority of the subdivision area and subsequent development will occur within the sand mining areas and the successional old field community. As previously indicated, these areas mostly consist of herbaceous frontier plants with few shrubs and some invasive species. The development represents an opportunity to improve the quality of the habitat with native landscaping, potentially providing a more suitable habitat for local wildlife than the current and former sand mine.

As previously noted, upon subdivision approval, the Applicant will stabilize the site with installation of meadow mix as part of the installation of the road system, until the development of individual lots occurs through site plan review. The seeds to be utilized for the meadow mix include 9 pounds per acre and 2.5 pounds of flowers per acres. Typical plot plans and associated landscaping plans were prepared as a basis of analysis as part of this DEIS (see **Appendix A-5**). The grasses and flowers and associated percentages to be included in the meadow mix are as follows:

Grasses:

- 72% Schizachyrium scoparium
- 8.0% Andropogon gerardii
- 8.0% Panicum virgatum
- 8.0% Elymus virginicus
- 4.0% Eragrostis spectabilis

Flowers:

- 16% Chamaecrista fasciculata
- 16% Rudbeckia hirta
- 10% Heliopsis helianthoides
- 10% Lespedeza spp.
- 10% Achillea millefolium
- 6.0% Senna hebecarpa
- 5.5% Asclepias tuberosa
- 5.5% Monarda fistulosa
- 3.0% Baptisia tinctorial
- 3.0% Aster lateriflorus
- 3.0% Aster novi-belgii
- 3.0% Solidageo speciose
- 3.0 % Solidago odora
- 3.0% Tradescantia ohiensis
- 1.5% Pycnanthemum tenuifolium
- 1.0% Zizia aurea
- 0.5% Helenium autumnale

Rain garden will consist of standard native plants that will vary by site. The following trees, perennials and shrubs will be utilized at the overall property:

Trees:

- Amalanchier laevis

Shrubs:

- Aronia melanocarpa
- Ceanothus americanus
- Diervilla lonicera
- Ilex glabra
- Ilex verticulata
- Vaccinium corymbosum
- Viburnum dentatum

Perennials:

- Achillea millefolium
- Agastache foeniculum
- Asclepias tuberosa
- Aster laevis

- Aster novi-belgii
- Coreopsis verticulata
- Echinacea purpurea
- Helenium autumnale
- Helianthus occidentalis
- Lobelia siphilitica
- Monarda fistulosa
- Pycnanthemum virginianum
- Solidago speciose
- Vernonia noveboracensis

Street Trees:

- Swamp White Oak
- Little Leaf Linden
- Sycamore
- Princeton American Elm
- Green Ash

Based on the proposed project described in **Section 1.3**, the existing habitats on the property will be modified as a function of the proposed development. **Table 2-12** provides the coverage quantities associated with the change in habitats associated with this development.

TABLE 2- 12
HABITAT QUANTITIES
Existing and Proposed Conditions

Coverage Type		**Existing**		**Proposed**		**Change in Conditions**	
		Acres	% of site	Acres	% of site	Acres	%
Pervious	Pitch pine-oak forest	9.20	13.05%	23.51	33.3%	-38.9	-55.17%
	Sand mine	16.16	22.9%				
	Successional old field	37.05	52.55%				
Impervious	Unpaved road/path	4.38	6.22%	47.00	66.7%	38.9	55.17%
	Paved road/path	2.94	4.17 %				
	Urban structure exterior	0.78	1.11%				
TOTAL		**70.51**	**100.00%**	**70.51**	**100.00%**		

The Natural Heritage Program has no records of state-listed plants, significant natural communities or other significant habitats on or in the vicinity of the subject site. In addition, the NYNHP indicates the presence of a special concern animal species within the vicinity of the project site, the Coastal Barrens Buckmoth (*Hemileuca maia ssp. 5*). Specifically, the species is noted to have been observed in the fall of 1983 within the confines of the East Hampton Airport, located to the north of the project site. Since the species host plant, Scrub Oak (Quercus ilicifolia), was not observed on the site, the Coastal Barrens Buckmoth is not expected. Consequently, no significant adverse impacts are expected to this species. In addition, although there is documented concern about this species' welfare in New York State, special concern species receive no additional legal protection under ECL Section 11-0535. This category is presented primarily to enhance public awareness of these species that bear additional attention **(NYSDEC, Endangered Species Unit)**.

Wildlife

The habitat within the development area is pitch pine-oak forest and successional old field as well as several terrestrial cultural habitats. The property may act as a refuge for rare native flora or fauna and does contain a small population of local birds and mammals, such as songbirds and Eastern Gray Squirrels. The proposed project will favor those wildlife species that prefer edge and suburban habitats and those that are tolerant of human activity. Most of the species expected on the property are at least somewhat tolerant of human activity, but others will be impacted by the proposed clearing operation and increase in human activity. It is also expected that particular species of wildlife (particularly avian species) will migrate to undisturbed areas adjacent or near the site as a result of development.

Although the proposed potential acres of landscaped vegetation within the development provides less open habitat than the existing natural area, the landscaped areas are expected to provide some habitat for some species to remain that are tolerant and/or dependent on human activity and are adapted to surviving in multiple habitat types. If native vegetation is utilized at least in some part, the quality of the habitat, although reduced, may improve.

In the short term, lands adjacent to the property will experience an increase in the abundance of some wildlife populations due to displacement of individuals by the construction phase of the proposed project. Mobile species and particularly large mammals such as fox and deer would be expected to find suitable habitat northeast of the site where larger areas of natural open space currently remain. Ultimately, competition with both conspecifics and other species already utilizing the resources of the surrounding lands would be expected to result in a net decrease in population size for most species.

No further rare or endangered wildlife species are expected on the site given the habitats present except as described in the appropriate subsections above.

With respect to Georgica Pond, there is the potential for direct impacts associated with development and future uses. Specifically, the handling of stormwater, sanitary wastes and fertilizers. As the project site is located directly hydraulically upgradient of Georgica Pond, any substances that enter the water table will eventually make their way to the pond. As such, careful design must be considered when building out the project site, including the installation of low nitrogen septic systems and reduced fertilizer usage for lawns and gardens.

As noted in the Alpha Environmental Assessment, there is no evidence of impacts to Georgica Pond by the subject property and there is no indication that there is a source of groundwater contamination at the site that is currently impacting local, downgradient water supply wells. Poor water quality is due to nutrient loading primarily by nitrogen and phosphorus which has been identified as the most important contributor to harmful algal blooms that have degraded Georgica Pond. Wastewater discharge is considered to be the primary source of nitrogen. Additionally, there is no indication that there is a source of groundwater contamination at the site that will impact downgradient wells in the future if the site is developed.

I/A OWTS will be installed on individual commercial sites on a lot-by-lot basis to significantly reduce nitrogen in effluent and will be installed per Article 19 of the Suffolk County Sanitary Code, in conformance with the Town Code's Low Nitrogen Sanitary System requirements. When properly designed, installed and maintained, these systems will significantly reduce nitrogen. Currently, approved systems are designed to reduce total nitrogen in treated effluent to a maximum of 19 (mg/l) which is the SCDHS standard for approval of these systems. The use of I/A OWTS/Low Nitrogen Sanitary System technologies at the subject property will reduce total nitrogen in treated effluent to less than 19 mg/l and possibly lower as many existing approved systems are resulting in total nitrogen in effluent of well under the standard. In addition, since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced.

Future bio-retention areas will serve as an additional stormwater treatment method and will ensure water quality protection through design elements consistent with current and innovative green infrastructure technologies. Materials used for future landscaping and green infrastructure bio-retention areas will be non-fertilizer dependent to ensure that the species to be planted are native, well-adapted plantings that will eliminate the need for fertilization.

Based on the preceding assessment of vegetation and wildlife at the subject property, and in consideration of the available impact mitigation techniques proposed, no significant adverse impacts on the quality of these important resources are anticipated.

2.4.3 Mitigation

- Native plant species that provide food and shelter to wildlife will be utilized in the landscaped areas. The use of native plants has the potential to provide a higher quality habitat than the existing and former sand-mining operation.
- Disturbance of the pitch-pine oak forest community will be minimized to the maximum extent practicable, including delineating tree-clearing limits at the site prior to construction to avoid inadvertent clearing. The eastern and western treed areas, consisting of pitch-pine oak forest will not be cleared and will remain intact. The northern treed area may be partially or wholly cleared, but due to the presence of railroad tracks and associated invasive species, as a whole, this area represents the lowest quality forested area within the project site.
- No known invasive plant species will be utilized, including those species specifically listed in Suffolk County Local Law 22-2007 and as listed as invasive according to the Town of East Hampton Natural Resources Department.
- No fertilizer dependent vegetation will be used on the site. All restored areas will consist of native plantings to eliminate the need for fertilizer and irrigation and to improve habitat.

3.0 HUMAN ENVIRONMENTAL RESOURCES

3.1 Land Use, Zoning and Plans

3.1.1 Existing Conditions

Land Use

The subject property is presently a reclaimed sand mine with and existing ready mix plant (Suffolk Cement) and an existing masonry and tile supply yard (Southampton Masonry) on the southern portion of the property. Southampton Masonry utilizes two buildings: a one and two-story tile showroom with office space (approximately 6,790 SF) and a one-story cinderblock manufacturing showroom (approximately 9,058 SF). The Southampton Masonry portion of the subject property also contains a one-story frame building utilized as storage space for current operations (approximately 2,100 SF). The Suffolk Cement portion of the property contains a one and two-story office building (approximately 1,452 SF), a one-story masonry storage building (approximately 657 SF), one (of three) metal storage building on the central portion of the property (approximately 2,910 SF), silos and hoppers.

In addition, Emergency Mechanical Services, leases two of the three metal storage buildings (approximately 3,230 SF each) located along the southern portion of the property. All three existing metal buildings will be removed as part of the Proposed Action. Landscape Details, which leased a repair shop building (approximately 2,275 SF) and outdoor storage space immediately north of Southampton Masonry moved off the subject property as of February 2020. Based on measurements in Geographic Information System (GIS), approximately 55 acres throughout the interior and northern portions of the subject property remain vacant (which includes reclaimed sand mine land and wooded vegetation along the property boundaries).

Based on a survey prepared by Fox Land Surveying in 2007, review of 2019 aerials and several site inspects**, Table 3-1** provides a breakdown of the existing land coverages at the subject property.

TABLE 3-1
EXISTING LAND COVERAGES

Site Coverage Type	Existing Coverage (Acres)
Roads, Buildings and Other Paved or Impervious Surfaces	3.72±
Forested	9.20±
Meadows, grassland or brushland[1]	37.05±
Non-vegetated (bare rock, earth or fill)[2]	20.54±
TOTAL	**70.51±**

[1]Refers to successional old field and associated unpaved trails within the interior of the subject property.
[2]Refers to former sand mining areas.

Existing land uses and the general development pattern in the surrounding area is identified based on aerial photographs, geographic land use data, and direct observations performed during field visits. The current land use pattern in the area surrounding the subject property is depicted on the (existing) Land Use Map provided in **Figure 3-1**. The scale and spatial arrangement of existing buildings, structures and the local street network are shown on the aerial photograph provided in **Figure 1-2**. A summary of existing land uses on and near the subject site and the general development pattern in the area is as follows:

Subject Site: Mostly vacant former sand mine with two commercial/industrial uses thereon;

To the North: Long Island Railroad tracks followed by the Wainscott Industrial Center, a vacant Town-owned property, an educational use (The Country School) and an agricultural use. Northeast is a non-for-profit organization (Animal Rescue Fund of the Hamptons, Inc.) and to the northwest are municipal uses (East Hampton Town Police Department and the East Hampton Fire District Training Facility). North of Industrial Road is the East Hampton Airport;

To the South: Old Montauk Highway and industrial (i.e., moving and storage facilities and small hardware stores) and commercial (animal hospital and retail) uses followed by Montauk Highway. South of Montauk Highway are single-family residences and scattered undeveloped wooded land. Southwest of the subject property are various commercial uses (gas station, professional offices, retail, personal services and restaurants) and an industrial use (plumbing and heating supplies). Southeast of the subject property, at the southeast corner of Montauk Highway and Wainscott Stone Road is a restaurant followed by Georgica Pond and associated recreational areas/open space, as well as single-family residences along the east side of Wainscott Stone Road;

To the East: Single-family residences along Hedges Lane followed by undeveloped wooded land that is owned by the East Hampton Community Preservation Fund;

To the West: Single-family residences and scattered undeveloped wooded areas.

The subject property is located east of the main commercial center known as the Wainscott Business District along Montauk Highway, the main vehicular artery in the hamlet. The Wainscott Business District is approximately 20 acres along Montauk Highway and extends from Westgate Road approximately 0.75-mile east along the north side of Montauk Highway.[26]

There are a number of open space lands and recreational uses in the surrounding area including Georgica Pond and associated recreational areas to the southeast of the subject property, as well as farmland, nearby golf courses, indoor recreational facilities and various beaches along the Atlantic Ocean. In addition, there are several open space/easement parcels proximate to the subject property that are not available for public use. These consist of undeveloped

[26] Dodson & Flinker, Landscape Architects and Planners, et al. *East Hampton Hamlet Report Wainscott.* Prepared for the Town of East Hampton. January 30, 2018.

wooded land along the east side of Hedges Lane containing the northwest Georgica Pond Tributary, which is owned by the Town; undeveloped wooded land between Montauk Highway and Old Montauk Highway, which is owned by New York State; and privately-owned easements along the east side of Wainscott Northwest Road. The Town-owned undeveloped land is "Community Preservation Fund and Nature Preserve Land" while the State-owned property and privately-owned easement are considered "recreational open space," as depicted in the Town's Existing Protected Land figure.[27] A Town-owned conservation easement is also present along the south side of Montauk Highway (Wainscott Northwest Road and Wainscott Stone Road), which is considered "recreational open space." Furthermore, several parcels to the east and northwest of the East Hampton Airport that are owned by the Town are also designated as "recreational open space."

Zoning

The subject 70.51±-acre property is currently zoned Commercial-Industrial (CI) zoning district which permits a wide variety of industrial and commercial uses, including but not limited to: agriculture; boat yard; filling station; garage (storage and repair); riding academy; wholesale business, including lumber and building products; truck terminal or truck transfer station; and warehouse, storage yards or building supplies distribution. Other land uses that are permitted in the CI zone by special permit include: air terminal; bus terminal; car wash; office park; rail terminal; dry cleaning or laundry; fish processing facility; exterminator; fuel storage in tanks; multiple industrial complex; recycling and scrap yard; and sand mining and excavation.

Land adjacent to the subject property is zoned as follows:

To the North: All uses north of the LIRR are in the CI zoning district. Portions of the East Hampton Airport (the majority of SCTM #0300-180.00-01.00-008.013) are in the Water Recharge Overlay (WRO) District;

To the South: Uses to the south are in both the CI district and Central Business (CB) zoning district. Farther south, single-family residences south of Montauk Highway are in the Residence A zoning district. Uses southwest of the subject property along the north side of Montauk Highway are also in the CB zoning district. The commercial use southeast of the subject property at the southeast corner of Montauk Highway and Wainscott Stone Road is in the Residence A district and the single-family residences along the east side of Wainscott Stone Road are in the Residence A5 zoning district; these uses are also all located in the Harbor Protection Overlay (HPOD) District;

To the East: Single-family residences along the west side of Hedges Lane are in the Residence A zoning district. Single-family residences and undeveloped land on the east side of Hedges Lane are in the Residence A2 zoning district and the WRO District. It

[27] Existing Protected Land Wainscott School District figure available from Town's website (accessed April 2019). Available at: https://ehamptonny.gov/DocumentCenter/View/1261/Wainscott-School-District-Map-PDF.

should be noted that a portion of the undeveloped wooded land is within the Village of East Hampton's jurisdiction;

To the West: Single-family residences are in both the Residence A and Residence B zoning districts.

Figure 3-2 shows the existing zoning pattern in the area.

In September 2017, Wainscott Commercial Center LLC prepared a study to determine the number of CI zoned parcels within the Town of East Hampton (see **Appendix B**). This study presents the vacant CI zoned parcels in the Town that are privately owned with the potential for development. The study concluded that there are currently 29 vacant CI zoned parcels, of which 12 parcels are owned by the Town and 17 are privately owned. Four of the 17 privately-owned vacant parcels are located at the subject property, which range in size from 4.1 acres to 7.7 acres and are the largest privately-owned vacant CI lots in the Town. The remaining 13 privately owned vacant parcels are between 0.23 acres to 0.92 acres in size. Since September 2017, three of 17 privately-owned vacant parcels have been developed or are in the process of being developed. Therefore, there are only 14 privately owned vacant CI lots in the Town to date (four of which are owned by the Applicant).

The minimum lot area within the CI zone is 40,000 SF. Similarly, and the minimum lot area per business or industry is 40,000 SF, except for a planned industrial park seeking a special use permit. Maximum permitted building coverage in the CI zoning district is 50 percent and maximum permitted total lot coverage in the CI district is 75 percent. According to §255-1-20, the definitions of total building coverage and total coverage are as follows:

- *COVERAGE, BUILDING (or LOT COVERAGE): That percentage of lot area covered by any roofed structure measured to the furthest extent of the roof as projected downward to the ground. Cornices, eaves, gutters, chimneys and fireplaces projecting not more than 24 inches from exterior walls shall be excluded from building coverage. Building coverage is computed by dividing the area of roofed structures into lot area. See area of building and lot area; also see "total coverage."*
- *COVERAGE, TOTAL: That percentage of lot area covered by the ground floor area of all buildings sited thereon and by all other structures, including parking areas, driveways and all impermeable surfaces. See "building coverage (or lot coverage)"; also see "structure."*

Dimensional zoning requirements are indicated in **Table 3-2**:

TABLE 3-2
CI DIMENSIONAL ZONING STANDARDS

Dimensional Standard	Standard Requirement
Minimum Lot Area (SF)	40,000
Minimum Lot Width (feet)	100
Maximum Permitted Building Coverage (percent)	50
Maximum Permitted Total Lot Coverage (percent)	75
Minimum Front Yard (feet)	50
Minimum Side Yard (feet)	15 (each side)*
Minimum Rear Yard (feet)	25*
Maximum Building Height	35 feet/2 stories**

*Except for yards bordering a residence district, in which case the figure shown shall be doubled.
**Except by special permit for industries requiring interior heights up to fifty (50) feet.

Land Use Plans

Town of East Hampton Comprehensive Plan (2005)

The 2005 Town of East Hampton Comprehensive Plan ("2005 Comprehensive Plan") sets several goals and provides recommendations to protect natural and cultural features and preserve open space in the Town. These recommendations are presented in order to reduce impacts to groundwater resources, historic and pre-historic resources and existing character. While the recommendations in the 2005 Comprehensive Plan are actions to be directly undertaken by the Town Board, there are several recommendations that are generally applicable to the proposed project and/or land use on or in the vicinity of the subject site, which include the following:

- *#9 Natural Vegetated Buffers for wetlands - Require 100 foot natural vegetated buffers around tidal and freshwater wetlands to control flooding and erosion; to improve water quality, species diversity, and habitat; and to allow for inland migration of coastal wetlands. Consider greater setbacks for larger lots.*
- *#17 Roadside Buffers - Maintain the rural character of the Town by continuing the informally adopted Planning Board policy requiring new development to protect and retain the native vegetation along the Town's roadways and transitional areas between hamlet centers.*
- *#27 Revise Commercial Industrial Uses - Revise list of permitted and specially permitted CI uses and the standards for operation so as to reduce potential environmental impacts.*
- *#30 Rezone Residential Land for CI Uses - Recognize that the construction industry is also important to the economy of East Hampton, employing approximately 15% of the Town*

work force and rezone 13.65 acres from B Residence to CI in the Springs Fireplace Rd. area, historically used for industrial uses.

- *#35 Wainscott Hamlet Center Study - Develop a plan to help improve the appearance and functionality of the Business District.*
- *#39 Commercial Needs Study and Consensus - Conduct an evaluation of EH Town's ability and desire to meet future commercial needs.*

Three potential courses of action, described as option 1, 2, or 3, are offered for recommendation number 39. Option 3 notes that "the former sandpit" in Wainscott has vacant land that could potentially be used for commercial development in the future, if necessary.

Plan for Wainscott (2005)

The Plan for Wainscott is one of five Town rezoning and acquisition recommendation plans that are part of further planning efforts and evaluation of the hamlet, beyond the goals and recommendations provided in the 2005 Comprehensive Plan. Each of the five plans provide general recommendations for their respective areas based on the goals and specific criteria for acquisition and rezoning recommendations set forth in the 2005 Comprehensive Plan. Recommendations provided in this plan are direct actions to be undertaken by the Town. However, the general recommendations that are pertinent to the Proposed Action and surrounding area include:

- *Ground and Drinking Water Resources - Take forceful measures to protect and reduce human impacts to the largest volume of high quality ground and drinking water resources within the entire Town, which exists beneath the land generally north of the Town Airport.*
- *Georgica Pond - Protect the surface waters, local fishing industry and biodiversity within Georgica Pond, also identified as eligible for inclusion in the East Hampton Scenic Area of Statewide Significance.*
- *Montauk Highway - Limit the number of new accesses, commercial sprawl and development along Montauk Highway to maintain the functionality of the Town's main roadway and the scenic approaches between hamlets.*
- *Commercial Hamlet Center - Improve the visual quality and viability of the commercial hamlet center along the north side of Montauk Highway.*

A conformance assessment of the Proposed Action with the Plan for Wainscott recommendations and 2005 Comprehensive Plan recommendations is contained in **Section 3.1.2**.

East Hampton Hamlet Report Wainscott and related Hamlet Business District Plan Town of East Hampton, New York (May 2017)

The East Hampton Hamlet Report for Wainscott ("Wainscott Report") dated August 13, 2019 is the culmination of planning efforts by the Town, the Town's consultants and East Hampton

residents since July 2017, for the Central Business District of Wainscott. This Master Plan for Wainscott's Central Business District was prepared to explore ways to enhance the business district for the future to better serve the community. Although the subject property is not located within Wainscott's Central Business District as defined in the Wainscott Report , it is discussed throughout the Wainscott Report and is noted to be "the single largest development opportunity, with the potential to significantly reshape and expand Wainscott's Commercial Center" and "presents unique opportunities to enhance the business district." Therefore, the Applicant is the largest private stakeholder discussed in the Wainscott Report.

One of the key elements of the Wainscott Report was the public participation process, which consisted of a walking tour, a listening workshop and a public visioning workshop. During the public visioning workshop, participants were asked to participate in a model-building exercise to envision how the commercial district could be redeveloped in the future. During this exercise, community members proposed potential future uses and opportunities for the subject property.

From these public workshops, a number of objectives and recommendations were created by the Town's consultants for the inclusion in a Master Plan. The Wainscott Report presents seven objectives and numerous recommendations for the business center along Montauk Highway to address specific issues of concern raised during the planning process and the public workshops. The following are objectives relevant to the subject property and the Proposed Action:

- Objective 5 – Reduce Traffic Congestion and Improve Circulation
- Objective 6 – Devise an appropriate plan for the redevelopment of the former sand mine property

The following recommendations and selected portions of same are relevant to the subject property and the Proposed Action:

> *<u>B. Protect and Enhance the Natural Environment and Historic Character</u>*
>
> *#7 Water Quality Improvements: Redevelopment of the area will provide a unique opportunity to address potential pollution associated with existing cesspool and septic systems, to install state-of-the-art systems for new development, and to deal with issues related to exposed groundwater conditions and prior uses at the gravel pit and the cement plant.*
>
> *<u>C. Pattern of Development</u>*
>
> *#3 Develop new Home Improvement Zoning District: Redevelopment of the gravel pit site offers a great opportunity to create a home service and supply cluster development area and would also open up space along Montauk Highway for more pedestrian-friendly retail and uses catering to walk-in traffic.*

E. Parking

Shared Parking: In the east side [of the business district]*, the plan depicts a new shared parking area in the gravel pit enhancing the park-once-and-walk environment and serving future mixed use development of the gravel pit property.*

Municipal Parking/Parking Management District: Two potential locations are depicted on the Master Plan – one in the former sand mine property and the second along Wainscott NW Road. To facilitate a comprehensive approach, creating a Parking Management District (PMD) should be considered as part of any plan for developing a municipal lot.

F. Former Sand and Gravel Mine Property

At a minimum, the preparation of a detailed environmental impact statement will be required as a pre-requisite for approval of a reuse or master plan. This should address physical changes to the land, impairments to Georgica Pond, impacts to on-site surface water and groundwater resources, impacts to drainage patterns and surface water runoff, impacts on air (during earthmoving and construction), impacts on fish and wildlife habitats within the watershed, impacts to aesthetic resources, impacts on open space and recreation, impacts on transportation, impacts on noise and odor, impacts on public health, and impacts on growth and character of the community.

A scoping session with participation from the public, the Town and involved agencies will flesh out these and other potential impacts to be evaluated. Development of a Master Plan must consider sustainability, environmental protection and energy conservation.

While development of the Wainscott Plan featured an extensive public participation process extending to all members of the community, additional meetings and review with the property owner and the public are necessary before a plan can be considered for implementation. As a starting point for further evaluation and consensus building, the Master Plan provides a potential layout with over half the property proposed for restoration to parks and open space.

To minimize traffic impacts associated with reuse, a new circulation and road system are proposed which includes realignment of Old Montauk Highway, extension of Bathgate Road, new interior roads and a roundabout at the Montauk Highway intersection. Community suggestions for the site include:

- *Shared parking lot*
- *Modest affordable housing development*
- *Green space for passive enjoyment*
- *Active recreation*
- *Home improvement business area*

- *Relocated, consolidated, screened and cleaned up heavy commercial industrial area*
- *Service commercial business area*
- *Solar farm*
- *Electric car charging station*
- *Bus stop for Jitney and other NY City commuter transit*
- *Future Wainscott train station*

The property provides opportunities to accommodate a decentralized community system for wastewater treatment to reduce pollutant loading impacts from existing and potential future development.

H. Plan and Build a Decentralized Community Wastewater System

Based on potential water quality improvements to a priority water body, level of demand, density of existing development, number of potential users, and availability of land, municipal contributions from CPF funds for a decentralized community system for the Wainscott hamlet business center should be considered a priority. Reuse of the gravel pit may provide opportunities for private funding and required land area.

I. Transportation Improvements

#3 Roundabout and Bathgate Road Eastern Extension: Similar to the western end of the district, a roundabout is recommended at the entrance to the gravel pit to maintain constant traffic flow at a moderate speed. To improve and control curb cuts onto Montauk Highway, extension of Bathgate Road and a reconfiguration of Old Montauk Highway is recommended and can be coordinated with planning for reuse of the gravel pit and other private properties.

Additional recommendations stated in the Action Plan Matrix (page 44) include "develop a process/consensus for the property" and "evaluate the need for water quality remediation for current and past practices." The responsible entities listed for developing a consensus of the site include the property owner, Town Board, Planning Board, Planning Department and the public; and the responsible entities listed for evaluating the need for water quality remediation include the property owner, an outside contractor, SCDHS and the East Hampton Natural Resources Department.

Hamlet Business District Plan Town of East Hampton, New York (May 2017)

In connection with its development of its Hamlet Plans, the Town also retained RKC Associates, Inc, to conduct a Business District Analysis (the "Town Economic Study") and to create an economic strategy that sustains the hamlet commercial districts in the future. The goal of the business district and economic analysis is to provide an understanding of the Town's economic base, existing business context, as well as local and regional dynamics that drive the Town's economy. That information would then be used to develop a series of recommendations that

the Town and the business community can implement to maintain a thriving tourist economy while serving the needs of the year-round residents and preserving the unique characters of the hamlets. One of the Study's principal conclusions was that the Town's economy is, and will to a greater degree in the future, be driven by tourism and Second Home development. The Town Economic Study determined that the prominent role of the Town's second home economy is evidenced by the large volume of taxable sales that are largely attributed to the demand for second-home-related products and services. Approximately $77.1 million in taxable sales are generated by the construction, maintenance, and transaction of second home properties, representing 58% of the total taxable sales of these industries. Approximately $75.8 million in taxable sales are supported by the spending of second homeowners, their tenants, guests, and other tourists. In addition, in 2015, East Hampton has 18,181 residential properties, with a total assessed value of $181.2 million and a total estimated market value of $30.7 billion. In 2015, these properties generated $156.1 million in property taxes. Approximately 63% of the residential properties (or 11,498 properties) are second homes, representing 73.9% of the total residential assessed value and 72.3% of the property tax. Finally, the total value of arm's-length sales dropped by more than 50% during the recession, followed by a strong recovery starting in 2010 and peaking in 2014 at $1.56 billion. The total sales value stayed relatively stable over the next two years, indicating a static market transaction scale. Over the same period, the annual average value of arm's-length sales remained in the $1,421,563 - $1,888,262 range. The average sales value in 2015 and 2016 are like the 2007 level. This indicates that the Town had long established as a high-value residential market; the supply has been keeping up with the demand over the past 10 years and is likely to remain so since there is no sign of major growth in demand.

3.1.2 Potential Impacts

Land Use

Subdivision of the subject property, construction of internal roadways and installation of utilities and stormwater management systems will not change the land use classification of the property. Following receipt of all regulatory approvals and installation and construction activities, the majority of the subject property will remain vacant and the Suffolk Cement ready mix plant and the Southampton Masonry supply yard will remain operational. The proposed subdivision will eventually lead to redevelopment of the former reclaimed sand mine, which is currently an underutilized and predominantly vacant property adjoining the Wainscott Business District.

Land uses will change from vacant to lots developed in conformance with zoning, as lots are developed over time and based on market conditions. However, in consideration of the existing mixed land use pattern of the area, the industrial uses north of the subject property and the commercial uses to the south of the subject site along Montauk Highway, future commercial or industrial businesses are expected to be consistent with the use and character of the land use pattern of the area. Specifically, future commercial/industrial uses will be similar to industrial uses at the Wainscott Industrial Center along Industrial Road, several

commercial/industrial uses along Industrial Road northwest of the subject property (i.e., Twin Fork Moving and Storage and the Welding and Steel Yard) and various commercial and industrial uses along Montauk Highway south and southwest of the subject property (e.g., Home Sweet Home Moving & Storage Co., Wainscott Hardware and East Hampton Plumbing & Heating Supply). From a land use standpoint, future commercial/industrial uses on lots consistent with minimum lot size requirements will provide a better transition to the adjacent single-family neighborhoods to the east and west and to the Wainscott Business District than six large and more intensive land uses that could be permitted on the existing six lots ranging in size from in size from 4.06± acres to 37.95± acres. The proposed minimum 40,000 SF lots are planned to have internal access from the proposed subdivision road, common driveways for adjoining lots and perimeter buffers planned as part of the subdivision open space as well as rear yard bio-retention areas and buffering to enhance the subdivision and maintain land use compatibility between transitional uses.

In order to further mitigate potential adverse impacts associated with land use at the subject property, the Applicant proposes to prohibit, certain intensive permitted and specially permitted business and industrial uses in the CI zone. A covenant will be voluntarily offered and filed by the Applicant to not allow the following uses that are otherwise permitted or specially permitted in the CI zone applicable to the subject site:

- Air Terminal – Specially Permitted
- Animal Husbandry – Specially Permitted
- Boat Yard – Permitted
- Filling Station – Permitted
- Riding Academy – Permitted
- Dry Cleaning or Laundry – Specially Permitted
- Exterminator – Specially Permitted
- Fish Processing Facility – Specially Permitted
- Recycling and Scrap Yard – Specially Permitted
- Sand Mining and Excavation – Specially Permitted

It is expected that the majority of the future uses at the subject property would consist of small service commercial, wholesale and warehouse business (e.g., lumber and building products, storage yards and building supplies distributions). Actual uses to occupy the site will be based on demand and market conditions.

Although specific details of development at 48 of the proposed 50 lots are unknown at this time, proposed land coverage was estimated based on the maximum potential building coverage at full buildout of the subject property for the purposes of evaluating potential land use impacts. The existing and future potential land coverages are as follows:

TABLE 3-3
EXISTING AND PROPOSED LAND COVERAGE

Site Coverage Type	Existing Coverage (Acres)	Proposed Coverage (Acres)
Roads, Buildings and Other Paved or Impervious Surfaces	3.72±	47.00±
Forested	9.20±	7.60±
Meadows, grassland or brushland	37.05±	0
Non-vegetated (bare rock, earth or fill)	20.54±	3.80±
Landscaping	0	12.11±
TOTAL	**70.51±**	**70.51±**

The proposed coverages depicted in **Table 3-3** reflect the existing 3.3± acres of impervious surface coverage at Lots 21 and 22 to remain, as well as approximately 16 percent coverage of rain gardens/bio-retention areas on the 48 remaining lots, approximately 8.25 percent of pervious outdoor storage area on the 48 lots, approximately 3.6± acres of an internal roadway system throughout the subject property and approximately 3.1± acres of landscaping along the proposed roadway system. The coverages also reflect new landscaping consisting of non-fertilizer dependent groundcover vegetation and street trees along the southern property boundary. The remaining 40.1± acres of impervious surface coverage will be dedicated to buildings, parking and loading areas and paved driveways at each lot. The 3.8± acres of "non-vegetated" coverage will be pervious area dedicated to outdoor storage at each lot. Exact pervious materials to be utilized will be determined on a lot-by-lot basis during the site plan review stage; however, typical site plans have been prepared to provide a basis for analysis of the expected development pattern of individual lots (see **Section 1.3.1** and **Appendix A-5**)

In order to protect existing residential properties adjoining the existing CI zoned site, vegetated buffers will be enhanced along the eastern and western property boundaries to maintain/enhance the vegetation on the site and improve aesthetics in the transition between the site operations and residences to the east and west. These buffers total 7.6± acres and consist of both natural wooded vegetation to be retained and landscaped vegetation to be installed. Existing wooded vegetation along the eastern property boundary will be retained and utilized as a 2.51± acre buffer to set back and screen internal views of the site from the residences along Hedges Lane. The buffer along the western property boundary will consist of 5.09± acres of natural wooded area and to provide a setback and screen views of the site from residences west of Wainscott Northwest Road. The other buffer area is along the western property boundary and will be 2.15± acres in size.

Despite the numerous attempts to redevelop the subject property, the site has remained in its current underutilized and predominantly vacant state. Redevelopment of the former reclaimed

sand mine could be considered infill, as the site is partially developed at present, has been subject to past disturbance and involves development of an existing underutilized and largely vacant site, within an area that is predominantly developed and is well-served by infrastructure, community facilities and various resources. As the current tax lot configuration of the subject property is not conducive to the reasonable development of the site, subdivision of the subject property into 50 lots that conform to the minimum lot size required by CI zoning will provide opportunities to locate current and future service and support businesses to serve commercial needs within the Town. Furthermore, subdivision of the subject property provides the Applicant with the ability to establish internal infrastructure on the site that will allow for individual or combined lots to be marketed for use and occupancy in conformance CI zoning, subject to the restricted list of allowable uses. Existing uses on the site will be modernized and upgraded, and installation of roads, recharge and utilities will facilitate individual site use. Until such time as site plans are filed for individual uses, the Applicant will establish and maintain native meadow vegetation on vacant lots.

Subdivision of the subject property will not foreclose the opportunity for further retention of open space and recreational areas consistent with the recommendations of the Wainscott Report. The Applicant is not opposed to the Town's purchase of portions of the site once it is subdivided for whatever public needs the Town believes are necessary or to provide a suitable balance of uses for the site. For example, the Town could purchase one or more of the newly created lots for a public parking lot needed to service the Wainscott Business District or pursue open space opportunities at the site beyond the required 10 percent open space requirement set for in Chapter 220 of the Town Code and provided as part of the subdivision plan for the site. Should the Town purchase future lots at the subject property for open space or recreational purposes, same would be available to the community for use and enjoyment.

As previously indicated, internal access throughout the site is currently limited to unpaved trails within the subject property. Redevelopment of the site will include a new roadway system that will provide planned internal circulation and access to proposed lots. The individual site development concept is to have common driveways to access building and parking, with surface bio-retention areas for stormwater treatment and open space to the rear of each individual site. Each lot will provide adequate space for parking areas to serve future developments and will eliminate the need for on-street parking along Old Montauk Highway or internal subdivision roads. Whereas access to the subject property is currently only provided along Old Montauk Highway and Georgica Drive, new access points to the subject property are proposed to Wainscott Northwest Road and Daniels Hole Road in addition to the existing access points. Therefore, the new access points will provide safe and convenient access to the existing local road network from the subject property. Providing multiple access points improves traffic circulation and decreases the use of any one access. Access points to existing Town roads to the northwest and northeast provides alternative site access for employees and future businesses/contractors that is expected to provide a traffic circulation benefit as compared to the sole access to Montauk Highway which currently exists.

Subdivision of the subject site into 50 CI zoned lots will provide opportunities to locate current and future service and support companies to serve business needs within the Town. The

project will generate needed temporary construction jobs and full-time employment once tenants have been established, thereby providing employment opportunities to the community. Thus, redevelopment of the former mine site that is currently vacant and underutilized property will provide local economic activity that will benefit the Town, its residents and existing as well as future businesses.

Zoning

Subdivision of the subject property will conform to the applicable requirements set forth in Chapter 220 of the Town Code. In accordance with Chapter 220, Part 1, *General Regulations*, 11 percent of the subject property (10 percent open space required) will contain buffers consisting of 7.6± acres of pitch pine-oak forest and landscaped vegetation along the eastern and western property boundaries. Additionally, the subdivision will establish roads and provide an on-site drainage collection using a system of storm drains throughout the proposed roadways to capture the runoff from a five-inch rain event, in accordance with Chapter 220, Article XV, *Stormwater Collection Systems*.

All future development will conform to the current CI zoning district requirements set forth in Chapter 255 of the Town Code such that future uses will meet the requirements for height, setbacks, lot coverage and building coverage set forth in *255 Attachment 5 Business and Commercial-Industrial Districts Table of Dimensional Regulations*. Future development of each lot will require Site Plan review and approval from the Planning Board, as well as architectural review and approval from the Architectural Review Board, and in some cases, depending on proposed uses, special permit review by the Town Planning Board.

Based on the *Study of Parcels Zoned Commercial Industrial Within the Town of East Hampton* prepared by the Applicant (see **Appendix B**), it is apparent that few undeveloped CI zoned parcels remain in the Town for future service commercial, wholesale and warehouse businesses. Thus, subdivision of the subject property into 50 CI zoned lots will accommodate the current and future economic needs of the Town by creating undeveloped CI zoned parcels for existing and additional service commercial, wholesale and warehouse businesses. As the current tax lot configuration of the subject property is not conducive to reasonable redevelopment of the site, subdivision of the subject property into 50 lots in conformance with CI zoning will provide opportunities to locate current and future service and support companies to serve business needs within the Town. As noted in the **Land Use** section above, there are certain intensive land uses that are principally permitted and permitted by special permit in the CI zoning district that will be prohibited by a voluntary covenant to be offered and filed by the Applicant. This will eliminate the potential for certain more intense uses that would otherwise be allowed (as permitted or specially permitted uses) under current zoning. It is anticipated that the majority of future development will consist of service commercial, wholesale and warehouse business (e.g., lumber and building products, storage yards and building supplies distributions), which are permitted uses in the CI zone.

Newly created lots as a result of the proposed subdivision will be similar in size and consistent with existing CI zoned parcels north of the LIRR along Industrial Road. These parcels along

Industrial Road range in size from approximately half an acre to 3.5 acres and the only large lots belong to the East Hampton Airport. Additionally, the proposed 50 lots will be comparable in size to most parcels to the east, west and south, as opposed to the current six large tax lots that currently exist on the subject site. Furthermore, the density of future development at the subject property will be consistent with the density of development along Montauk Highway in the vicinity of the subject property, as well as other areas along Montauk Highway in the Town.

The maximum permitted building coverage in the CI zoning district is 50 percent. However, the Applicant and NP&V have prepared an estimate of future buildings based on an expected building coverage of 18.75 percent when considering individual site parking, drainage, conformance with Article 6 of the SCSC and practical use of the lots. This estimate is provided as a basis for analysis of potential environmental impacts associated with future development and allows for future parking areas, driveways and impermeable surfaces (as stated in §255-1-20 of the Town Code), as well as potential outdoor storage areas and open space/bio-retention areas for total lot coverage.

The total estimated buildout allows for an evaluation of potential environmental impacts. A range of future building sizes is estimated based on the current CI zoning requirements and density limitations based on Suffolk County Groundwater Management Zone V assuming on-site wastewater treatment systems and no sewage treatment plant.[28] Assuming the conservative coverage estimate of approximately 18.75 percent, each of the 41 proposed 40,000 SF lots could yield a maximum commercial building of 7,500 SF for a total maximum building coverage of 307,500 SF (based on a calculation of 1,640,000 SF [41 proposed 40,000SF lots] multiplied by 18.75 percent). The remaining lot sizes and potential building coverage on each lot (utilizing the same calculations) are as follows:

- Lot 1 with a proposed 54,731 SF lot size could yield a maximum building of 10,262 SF;
- Lot 11 with a proposed 40,341 SF lot size could yield a maximum building of 7,564 SF;
- Lot 20 with a proposed 47,384 SF lot size could yield a maximum building of 8,885 SF;
- Lot 23 with a proposed 51,884 SF lot size could yield a maximum building of 9,728 SF;
- Lot 35 with a proposed 46,890 SF lot size could yield a maximum building of 8,792 SF;
- Lot 36 with a proposed 45,618 SF lot size could yield a maximum building of 8,553 SF; and
- Lot 50 with a proposed 80,062 SF lot size could yield a maximum building of 15,012SF.

Based on these calculations, the total potential building coverage at the overall subject property could be approximately 376,296 SF. Lots 21 and 22 are not included in this potential yield, as these lots are both currently developed with the Suffolk Cement ready mix plant and the Southampton Masonry supply yard which are anticipated to remain.

[28] A sewage treatment plant (STP) to serve the subdivision is impractical as the development of individual lots is expected to occur over a long period of time and would not warrant or justify the expense or construction of an STP for intermittent, gradual flow associated with this long-term development. However, Low Nitrogen Sanitary Systems are proposed for each individual lot (other than Lot 21 and 22 which will continue to be serviced by existing individual sceptic systems).

It should be noted that if a STP was constructed to service the entire subject parcel, the potential building coverage at the overall subject property could increase dramatically to 820,000 SF from the currently proposed maximum of 376,296 SF (based on a calculation of 1,640,000 SF [41 proposed 40,000SF lots] multiplied by 50.00 percent – maximum permitted under current zoning).

As previously noted, the maximum permitted total lot coverage in the CI zoning district is 75 percent. Based on the size of the subject property (70.51± acres), the maximum permitted lot coverage of all impervious surfaces at the subject property is 52.88± acres. Although specific details of development at 48 of the proposed 50 lots are unknown at this time, proposed land coverage was estimated based on the maximum potential building coverage at full buildout. Approximately 47 acres of impervious surface coverage is anticipated at full buildout, which is well below the maximum permitted total lot coverage requirement. As such, it is anticipated that future development will comply with the maximum permitted building coverage and maximum permitted total lot coverage.

Land Use Plans

An analysis of the consistency of the Proposed Action with the land use plans described in **Section 3.1.1** is provided herein. These include the *2005 Town of East Hampton Comprehensive Plan*, *Plan for Wainscott*, *East Hampton Hamlet Report Wainscott* and the *Runway Protect Zone for Runway 16-34 at the East Hampton Town Airport*.

Town of East Hampton Comprehensive Plan (2005)

- *#9. Natural Vegetated Buffers for wetlands*

  As previously stated, there are no wetlands NYSDEC tidal or freshwater wetlands located on the subject property and no part of the site is located within the NYSDEC's freshwater wetland jurisdiction. Nevertheless, natural vegetation is proposed to remain along the eastern property line which will act as an additional buffer between the subject property and the northwest Georgica Pond Tributary designated NYSDEC freshwater wetland located within the conservation land on the east side of Hedges Lane.

  A system of stormwater catch basins and leaching pools will be installed throughout the internal roadway system to recharge runoff on-site, in accordance with the Town of East Hampton's stormwater management regulations which requires that all stormwater runoff generated on a development site be retained and recharged in an on-site drainage system designed to accommodate a five-inch rainfall event. The individual site development concept is to have surface bio-retention areas for stormwater treatment and open space to the rear of each individual site. This will serve as an additional stormwater treatment method and will ensure water quality protection through design elements consistent with current and innovative green infrastructure technologies. Native plant species that provide food and shelter to wildlife will be utilized in these bio-retention areas. In order to further protect water quality, Low Nitrogen Sanitary

Systems in accordance with SCDHS and Town standards will be installed at each lot to significantly reduce nitrogen in recharge.

Based on the foregoing, it is expected that the Proposed Action and future uses will provide sufficient setbacks and buffer areas between the site and existing wetlands and will provide opportunities for habitats as well as water quality protection.

- *#17. Roadside Buffers*

  As noted above, vegetated buffers along the eastern and western property boundaries will remain and will improve aesthetics in the transition between the site operations and neighboring residences. Additionally, each lot will contain open space with native vegetation to the rear of each individual use. Therefore, it is expected that existing vegetation to remain and proposed native vegetation will improve the aesthetics of the site, act as transitional areas between the subject property and surrounding residences and support the context of the site in consideration of the surrounding community character.

- *#27. Revise Commercial Industrial Uses*

  The Applicant has agreed to prohibit by covenant, certain heavy industrial land uses permitted or permitted by special permit in the CI zoning district to reduce potential environmental impacts that could result from future development at the subject property if not otherwise restricted.

- *#30. Rezone Residential Land for CI Uses*

  As affirmed in the Applicant's *Study of Parcels Zoned Commercial Industrial Within the Town of East Hampton*, there are a limited number of CI zoned parcels in the Town. Creation of 50 new CI zoned lots at the subject property will eliminate the need to rezone residential land for CI permitted uses and will allow for proper utilization of existing residential land, as well as land at the subject property historically used for commercial and industrial activities.

  As recognized in the 2005 Comprehensive Plan and the Town Economic Study the construction and service commercial industries are important aspects of the Town's economy. Subdivision of the subject property will create 50 CI zoned parcels for current and future use, in response to market demand, for additional service commercial, wholesale and warehouse businesses. These types of businesses will provide vital services and support to the Town's dominant and expanding construction, tourism, and second homeowner's driven economy.

- *#35. Wainscott Hamlet Center Study*

  Subdividing the subject property into 50 commercial lots to be developed over time will remove the uncertainty regarding the site's future and will greatly enhance the site's visual appearance. Furthermore, redevelopment of the site will provide the Applicant the ability to market individual sites for development in conformance with zoning and subject to the voluntary prohibition of certain more intense uses that would otherwise

be allowed as permitted or specially permitted uses at the subject property.

Redevelopment of the former reclaimed sand mine could be considered infill, as it involves development of an existing underutilized and largely vacant site, within an area that is predominantly developed and is well-served by infrastructure, community facilities and various resources. Therefore, the subdivision and eventual redevelopment of the subject property will facilitate the improvement of appearance and functionality of the Wainscott Business District.

- *#39. Commercial Needs Study and Consensus*

  Since there is a shortage of privately owned and vacant CI zoned parcels (14 parcels, four of which belong to the applicant), subdivision of the subject property will provide additional opportunities for private service commercial, wholesale and warehouse businesses. These types of businesses will provide vital services and support to the Town's dominant and expanding construction, tourism, and second homeowner's driven economy, as noted in Town Economic Study. However, individual site development will occur based on market conditions and future commercial/industrial needs. The Town Economic Study also notes that the building construction and maintenance industry growth for second homes has driven recent job growth since 2005. Therefore, it appears that additional commercial and industrial facilities will be needed in the future to support second home ownership and this will in turn continue to reinforce economic development in the Town.

It should be noted that the Applicant is not opposed to the Town's purchase of portions of the site once it is subdivided for whatever public needs the Town believes are necessary or to provide a suitable balance of uses for the site. For example, the Town could purchase one or more of the newly created lots for a public parking lot needed to service the Wainscott Business District or pursue open space opportunities at the site beyond the required 10 percent open space requirement set for in Chapter 220 of the Town Code which is already provided as required by code. As such, it is respectfully submitted that the Proposed Action will provide sufficient open space consistent with code requirements, and will not foreclose the ability to provide additional open space opportunities at the subject property.

Overall, the Proposed Action is compatible with the intent of the 2005 Comprehensive Plan and the recommendations that are generally applicable to the project.

Plan for Wainscott

- *Ground and Drinking Water Resources - Take forceful measures to protect and reduce human impacts to the largest volume of high quality ground and drinking water resources within the entire Town, which exists beneath the land generally north of the Town Airport.*

- *Georgica Pond - Protect the surface waters, local fishing industry and biodiversity within Georgica Pond, also identified as eligible for inclusion in the East Hampton Scenic Area of Statewide Significance.*
- *Montauk Highway - Limit the number of new accesses, commercial sprawl and development along Montauk Highway to maintain the functionality of the Town's main roadway and the scenic approaches between hamlets.*
- *Commercial Hamlet Center - Improve the visual quality and viability of the commercial hamlet center along the north side of Montauk Highway.*

As discussed above, a system of stormwater catch basins and leaching pools will be installed throughout the internal roadway system to recharge runoff from the subdivision roads, on-site. The individual site development concept is to have surface bio-retention areas for stormwater treatment and open space to the rear of each individual lot. This will serve as an additional stormwater treatment method and will ensure water quality protection through design elements consistent with current and innovative green infrastructure technologies. In order to further protect water quality, Low Nitrogen Sanitary Systems will be installed at each lot to significantly reduce nitrogen in recharge. These measures will protect groundwater quality and surface waters associated with Georgica Pond.

The proposed project conforms to CI zoning and provides more than the minimum 10 percent open space as required by code, thus controlling commercial sprawl. The site lies north of Montauk Highway and is an existing disturbed site historically used as a sand mine and for commercial use. As a result, the site will not increase commercial sprawl and development along Montauk Highway.

Redevelopment of the site will include a new roadway system that will provide planned internal circulation and access to proposed lots. The individual site development concept is to have common driveways to access building and parking, with surface bio-retention areas for stormwater treatment and open space to the rear of each individual site. Each lot will provide adequate space for parking areas to serve future developments and will eliminate the need for on-street parking along Old Montauk Highway or internal subdivision roads. Whereas access to the subject property is currently only provided along Old Montauk Highway and Georgica Drive, new access points to the subject property are proposed to Wainscott Northwest Road and Daniels Hole Road in addition to the existing access points. Therefore, the new access points will provide safe and convenient access to the existing local road network from the subject property. Providing multiple access points improves traffic circulation and decreases the use of any one access. Access points to existing Town roads to the northwest and northeast provides alternative site access for employees and future businesses/contractors that is expected to provide a traffic circulation benefit as compared to the sole access to Montauk Highway which currently exists. As a result, the proposed project will maintain the functionality of the Town's main roadway (Montauk Highway) and the scenic approaches between hamlets.

Reuse of the subject property for future commercial and industrial uses will allow for development of an existing disturbed site. Subdividing the subject property into 50 commercial lots to be developed over time will enhance the site's visual appearance and will provide the Applicant the incentive to modernize and upgrade certain existing activities at the subject property. Therefore, the subdivision and eventual redevelopment of the subject property will facilitate the improvement of appearance and functionality of the Business District.

Based on the foregoing, the proposed project is consistent with the Plan for Wainscott.

East Hampton Hamlet Report Wainscott and related Hamlet Business District Plan Town of East Hampton, New York (May 2017)

B. Protect and Enhance the Natural Environment and Historic Character

- *#7 Water Quality Improvements*

  As discussed in **Section 2.3.2,** future uses at the subject property will utilize low nitrogen septic systems to reduce total nitrogen in treated effluent to 19 mg/l. Systems will be installed at each lot as the site becomes developed in order to prevent possible impacts to water quality. Since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced.

C. Pattern of Development

- *#3 Develop new Home Improvement Zoning District*

  As detailed in the Applicant's memo dated April 19, 2018 to the Town Board, in response to the revised Hamlet Report dated January 30, 2018, WCC has reservations regarding a designated Home Improvement Zone on the southern portion of the subject property. While the Applicant is not opposed to existing home improvement related businesses in the Wainscott Business District, it is the Applicant's opinion that it is unrealistic that affluent second homeowners are going to spend their personal time shopping for home improvement items in a traditional retail setting at the subject property given the widespread decline of retail sales by brick and mortar stores. It should be noted that the vast majority of businesses that are recommended by the Town to be moved from within the Business District to a proposed Home Improvement Zoning District at the southern end of the site are service commercial or wholesale businesses that are permitted in the CI zoning district and have limited retail sales to the general public. Based on the foregoing, it is respectfully submitted that a traditional "retail sales" zone would be much too limiting and would fail to attract a sufficient number of the desired (relocated or new) home improvement related businesses at the southern portion of the site. Moreover, the Applicant is concerned that such businesses in the Business District proposed by the Town to

be located at the subject property lack the scale and financial resources needed to relocate.

As stated in the Applicant's April 19, 2018 memo, it is the Applicant's opinion that a "Home Improvement Overlay District" will be a more realistic path to fulfilling this goal. This overlay district could accommodate service commercial and warehouse businesses, home improvement related businesses currently permitted in the CI zoning district, as well as new retail-based home improvement businesses. It should be noted that the Applicant is willing to discuss the location and size of an overlay district with the Town.

E. Parking

- *Shared Parking*
- *Municipal Parking/Parking Management District*

The Applicant is not opposed to the Town's purchase of portions of the site for any public needs the Town believes are necessary; subdivision of the site into small lots would facilitate any such purchases. Once subdivided into smaller more useable parcels, the Town will be free to pursue whatever Town related uses it deems fit for the site, including areas designated for municipal parking or a parking management district.

F. Former Sand and Gravel Mine Property

At a minimum, the preparation of a detailed environmental impact statement will be required as a pre-requisite for approval of a reuse or master plan.

This DEIS provides conformance with this recommendation providing a thorough analysis of potential impacts and mitigation with respect to topography, soils, water resources (i.e., surface water, drainage, groundwater hydrology/hydrogeology and groundwater quality), ecology, community character, community services, among other topics, in conformance with an adopted Final Scope. This document has been prepared to take a "hard look" at the Proposed Action and address potential environmental impacts pursuant to the Final Scope dated January 7, 2019 (**Appendix A-2**). Thus, this DEIS satisfies this recommendation as well as the recommendation that public scoping be conducted to ensure that the DEIS addresses community input.

While development of the Wainscott Plan featured an extensive public participation process extending to all members of the community, additional meetings and review with the property owner and the public are necessary before a plan can be considered for implementation. As a starting point for further evaluation and consensus building, the Master Plan provides a potential layout with over half the property proposed for restoration to parks and open space.

As previously stated, the current tax parcel configuration of the subject property is not conducive to the reasonable redevelopment of the site. While a Master Plan is a

useful planning tool for redevelopment, it is respectfully submitted that the existing subdivision plan and DEIS is essentially a Master Plan for the subject property and further master planning is not appropriate given the Applicant's pending subdivision application and numerous attempts to redevelop the subject property over the past several years. The subject site is privately owned by the Applicant and has been for over three decades and the proposed subdivision and future uses will conform to CI zoning and will be subject to further voluntary restrictions to prohibit certain more intense uses that would otherwise be allowed as permitted or specially permitted uses on the site. This DEIS identifies potential environmental impacts and determines appropriate mitigation measures to avoid or minimize potential impacts to the maximum extent practicable, for the appropriate redevelopment of the subject property. The DEIS will provide essential information and analyses for the Planning Board to review as part of the subdivision application. Therefore, this DEIS is an appropriate planning tool for the redevelopment of the subject property.

Based on the layout of the proposed subdivision, it is respectfully submitted that the Proposed Action will be consistent with the general conceptual framework of the site provided on page 23 of the Hamlet Report, as new internal roadways will be established and sufficient parking areas at each lot will be provided as a result of the Proposed Action. Moreover, subdivision of the overall property will allow for the Town to purchase lots or portions of the subject property to create additional open space, in accordance with the conceptual framework figure provided on page 24 of the Hamlet Report. Therefore, the proposed subdivision will set the stage for future implementation of the Hamlet Report. Furthermore, an alternative "Hamlet Plan" is evaluated in **Section 5.0** of this DEIS, which is driven by the Wainscott Hamlet Report.

To minimize traffic impacts associated with reuse, a new circulation and road system are proposed which includes realignment of Old Montauk Highway, extension of Bathgate Road, new interior roads and a roundabout at the Montauk Highway intersection.

Redevelopment of the site will include a new roadway system that will provide planned internal circulation and access to proposed lots. Each lot will share a common driveway between adjoining lots and will provide adequate space for parking areas to serve future developments thus eliminating the need for on-street parking along Old Montauk Highway or internal subdivision roads. Whereas access to the subject property is currently only provided along Old Montauk Highway and Georgica Drive, new access points to the subject property are proposed to Wainscott Northwest Road and Daniels Hole Road in addition to the existing access points. The new access points will provide safe and convenient access to the existing local road network from the subject property. Providing multiple access points improves traffic circulation and decreases the use of any one access. Access points to existing Town roads to the northwest and northeast provides alternative site access for employees and future businesses/contractors that is expected to provide a traffic

circulation benefit as compared to the sole access to Montauk Highway which currently exists.

A detailed Traffic Impact Study has been provided for the Proposed Action in conformance with the Final Scope. As noted in Dunn Engineer's Traffic Impact Study **(Appendix H)**, no adverse traffic impacts are expected on nearby roadways as a result of the subdivision, construction of an internal roadway system and infrastructure improvements.

Community suggestions for the site include:

- *Shared parking lot*
- *Modest affordable housing development*
- *Green space for passive enjoyment*
- *Active recreation*
- *Home improvement business area*
- *Relocated, consolidated, screened and cleaned up heavy commercial industrial area*
- *Service commercial business area*
- *Solar farm*
- *Electric car charging station*
- *Bus stop for Jitney and other NY City commuter transit*
- *Future Wainscott train station*

WCC is not averse to the Town's purchase of portions of the site for whatever public needs the Town believes are necessary and desirable or to strike a suitable balance of uses for the site. The subdivision of the site into small lots will facilitate any such purchases. Once subdivided into smaller more useable parcels, the Town will be free to pursue whatever Town related uses it deems fit for the site. For example, the Town could purchase one or more newly created lots located in the southwestern portion of the site and identified in the Hamlet Report as suitable for a public parking needed to better service the Wainscott Central Commercial District.

H. Plan and Build a Decentralized Community Wastewater System

CPF funds for a decentralized community system for the Wainscott hamlet business center should be considered a priority. Reuse of the gravel pit may provide opportunities for private funding and required land area.

An STP to serve the subdivision is impractical as the development of individual lots is expected to occur over a long period of time and would not warrant or justify the expense or construction of an STP for intermittent, gradual flow associated with this long-term development. Furthermore, creation of a community wastewater treatment system and maintenance thereof at the subject property would be overly burdensome on the Applicant. Therefore, it is respectfully submitted that this

recommendation is not applicable to the private use of the subject site in conformance with CI zoning and all applicable wastewater requirements of the SCDHS under Article 6 of the SCSC for Groundwater Management Zone V. If the Town finds this recommendation to be important to pursue, portions of the site may be purchased for whatever public needs the Town believes are necessary and desirable. Moreover, as noted above, an STP would result in a drastic increase in potential buildout of the subject property.

I. Transportation Improvements

- *#3 Roundabout and Bathgate Road Eastern Extension. Similar to the western end of the district, a roundabout is recommended at the entrance to the gravel pit to maintain constant traffic flow at a moderate speed.*

This is beyond the ability of the Applicant to pursue as a result of the proposed subdivision as it involves reconfiguration of a State highway, right-of-way acquisition and further design and evaluation before it can be pursued. This recommendation may be pursued by the municipality in coordination with the State as it sees fit.

Additional recommendations stated in the Action Plan Matrix on page 44 include "develop a process/consensus for the property" and "evaluate the need for water quality remediation for current and past practices."

As detailed in the Applicant's memo dated April 19, 2018, the Applicant strongly objects to "develop a process/consensus for the property," outside of the SEQRA process that is being completed and will include a DEIS, DEIS hearing and FEIS resulting in opportunities for extensive public input as the subdivision of the site in conformance with the existing CI zoning is processed. The Applicant believes that it retains the right as the sole owner of the site to move forward with redevelopment of the site in conformance with zoning. This is supported by current zoning regulations and application procedures outlined in the Town Code.

Alpha's extensive testing and documentation have determined that groundwater quality at the site is generally good aside from elevated levels of PFOA and PFOS due to upgradient and offsite contamination passing beneath the subject property. Elevated levels of iron and manganese occur throughout the Town and are primarily of aesthetic concern such as discoloration, poor taste and/or staining household fixtures if water is not treated and filtered. Finally, Alpha's investigations determined that there is no indication that there is a source of groundwater contamination at the site that is impacting local, downgradient water supply wells now, or will in the future, if this site is further developed. Therefore, it is respectfully submitted that these recommendations presented in the Action Plan Matrix on page 44 of the Hamlet Report are not relevant to the subject property or the Proposed Action.

Runway Protection Zone for Runway 16-34 at East Hampton Town Airport

The Town's East Hampton Airport-Draft Master Plan (May 20, 2016) shows that a substantial portion (approximately 4.5 acres) of the Runway Protection Zone for Runway 16-34 (the "RPZ") extends into a vacant portion of the northeast corner of the subject property [29]. Runway 16-34 is a secondary runway which is 2,223 feet long by 75 feet wide. It is considered a crosswind runway used by small, piston engine aircraft. Generally, an RPZ is a two-dimensional trapezoidal area at the end of a runway extending into the approach. It is required by Federal Aviation Agency ("FAA") regulations to enhance the safety and protection of people and property on the ground. FAA policy states that were practical, airports should own the property within the limits of the RPZ and clear all above ground objects within it. FAA regulations do not prohibit the introduction of buildings, structures, recreational land use and other proposed land uses within an RPZ. The FAA's Interim Guidance on Land Use within a Runway Protection Zone dated September 27, 2010 does, however, require an evaluation and coordination by the FAA of proposed buildings, structures, recreational land use and other proposed land uses within an RPZ. Therefore, any site plan or special permit review for future lots created by the proposed action would include compatibility review by the FAA. Figure III-52 (page III-170) of East Hampton Airport-Draft Master Plan contains the notion "LAND TO BE ACQUIRED" with respect to the portion of Runway 16-34's RPZ which is located on the subject property. The creation of lots through the proposed action would provide the Town with the opportunity to purchase newly created lots containing portions of Runway 16-34's RPZ.

Based on the foregoing and in consideration of the Proposed Action, the existing pattern of land use in the area, favorable project design and the Applicant's willingness to prohibit certain permitted and specially permitted heavy industrial uses at the subject property, potential land use and zoning impacts are expected to be minimized to the maximum extent practicable, such that significant adverse environmental impacts with respect to land use, zoning and land use plans are not anticipated.

3.1.3 Mitigation

- Certain intensive land uses permitted and permitted by special permit in the CI zoning district would be prohibited by a voluntary covenant to be offered and filed by the Applicant as part of proposed subdivision. It is anticipated that the majority of future development will consist of service commercial, wholesale and warehouse business (e.g., lumber and building products, storage yards and building supplies distributions), which are permitted uses in the CI zone.
- The Applicant is not averse to the Town's purchase of portions of the site for whatever public needs the Town believes are necessary and desirable; subdivision of the site into individual lots in conformance with CI zoning will facilitate any such purchases. Once subdivided into smaller more useable parcels, the Town will be free to pursue whatever

[29] Figure III-52 Alternative (page III-170) of East Hampton Airport - Draft Master Plan (May 20, 2016).

Town related uses it deems fit for the site such as open space/recreational uses or municipal parking.

- As the current tax parcel configuration of the subject property is not conducive to reasonable redevelopment of the site, subdivision of the subject property into 50 small lots will provide opportunities to locate current and future service and support businesses to serve commercial needs within the Town.
- All future development will conform to the dimensional requirements of the CI zoning district (or seek appropriate relief if needed). Future development of each lot will also require Site Plan review and approval from the Planning Board, as well as architectural review and approval from the Architectural Review Board, and in some cases, special permit review by the Town Planning Board.
- Future commercial/industrial uses on individual lots conforming to zoning will provide a better transition to the adjacent single-family neighborhoods to the east and west and to the Wainscott Business District than six large and more intensive land uses that could be permitted on the existing lots that range in size from in size from 4.06± acres to 37.95± acres at the site.
- Redevelopment of the former sand mine could be considered infill, as it involves development of an existing underutilized and largely vacant site, within an area that is predominantly developed and is well-served by infrastructure, community facilities and various resources.
- Subdivision of the subject property will facilitate orderly development at the subject site and will limit commercial sprawl and development along Montauk Highway
- The proposed subdivision and future commercial/industrial uses will be compatible with industrial uses north of the subject property along Industrial Road.
- Redevelopment of the site will include a new internal roadway system that will provide sufficient internal circulation. Each lot will provide adequate space for parking areas to serve future developments and would eliminate the need for on-street parking along Old Montauk Highway.
- New access points from Wainscott Northwest Road and Daniels Hole Road will provide safe and convenient access to local road network from the subject property over current conditions, and will increase the number of access options to and from the site, thus improving traffic circulation in the area and reducing sole use of Montauk Highway for site access.
- Vegetated buffers consisting of 7.6± acres of both natural wooded and landscaped vegetation will be retained along the eastern and western property boundaries, to enhance the transition between the site operations and residences to the east and west. Additionally, bio-retention areas will be established at each lot and open space will be provided at the rear portion of each individual site to enhance the vegetation on the site and improve aesthetics.

3.2 Community Character

3.2.1 Existing Conditions

Visual Character

The character and history of the site is well-known throughout the community. Mining for sand began at the subject property in the late 1940's to manufacture concrete block and gradually expanded at the site to supply sand for the Redi-Mix plant constructed by Mr. DiGate, the former property owner. The Redi-Mix plant manufactured semi-liquid mixed concrete, which was then hauled off-site by trucks to construction sites. Two new cement plants were then constructed adjacent to the former DiGate Redi-Mix and are currently operated by Suffolk Cement[30]. A block manufacturing plant built by Mr. DiGate was destroyed in a fire but was then rebuilt in the same location; the block plant is currently part of the Southampton Masonry site.

In 1984, the current property owner's family purchased the six parcels from Mr. DiGate while the site was undergoing reclamation activities; final reclamation of the site was approved by the NYSDEC in July 1998. However, the current owner continued to regrade the site by bringing additional clean fill and topsoil, exceeding what was required by the NYSDEC. The additional clean fill and topsoil has raised the grade of the subject property.

The aesthetics of the southern end of the subject property are typical for commercial/industrial operations. The appearance of Southampton Masonry property is of a large stone and tile supply facilities with two concrete buildings. The tile showroom on the easternmost portion of the property is one and two-stories in height while the brick and stone showroom on the central portion of the parcel is one story in height. Piles of materials (e.g., tile and stone) along the perimeter of the property and the two buildings are visible from Old Montauk Highway and Montauk Highway. Beyond the brick and stone showroom, a small silo associated with the tile and masonry facility can be seen from the surrounding roadways and is a prominent feature at the subject property. A chain-linked fence along the southern, eastern and western perimeter of the Southampton Masonry property provides partial screening of interior operations. Existing scattered trees along the southern portion of the property also partially shield views of the property.

Although not as apparent as operations on the Southampton Masonry property, glimpses of the two large cylindrical silos on the Suffolk Cement property can be seen from various locations along Montauk Highway, beyond the existing commercial development along same. Views of the associated conveyor equipment are not visible from Montauk Highway, but can be seen at certain locations along Old Montauk Highway. Views of the three one-story metal warehouse buildings adjacent to the ready mix plant are only visible from the westernmost access drive north of the intersection of Montauk Highway and Old Montauk Highway. As one continues

[30] Land Marks. *Draft Environmental Impact Statement Part I Narrative for Wainscott Commercial Center*. Prepared for Sand Land Corporation. May 29, 2001.

farther east and along Montauk Highway away from the site, existing equipment and operations at the subject property are not visible due to topography, intervening buildings and surrounding vegetation.

Once on the property, views of the interior of the site include unpaved dirt and gravel areas, additional piles of stone and tile, three large metal storage buildings and parked vehicles behind the Suffolk Cement property. Soil stockpiles and overgrown vegetation are dispersed between the stone and tile piles, storage buildings and parked vehicles. Various compact truck loaders and construction related equipment are prominent between the soil stockpiles.

Continuing within the subject property, views transition to vacant land with unpaved dirt and vegetated trails, large dirt stockpiles with overgrowth and dense unmaintained vegetation. Dense perimeter vegetation and steep slopes along the property lines are apparently from the interior of the site. Monitoring wells are also visible as one approaches the property boundaries. The visual character along the northern portion of the property is dominated by overgrown vegetation and wooded land along the property lines, except for several large trucks and construction equipment including a large crane that is stored at the northeastern corner of the site.

Noise

Noise can have various effects on human beings ranging from annoyance to hearing loss. A noise problem is said to exist when noise interferes with human activities[31]. Sound waves are generated in varying frequencies, which are described in hertz ("Hz"), a measure of cycles per second. The human ear is sensitive to frequencies between 20 Hz to 20,000 Hz and is most sensitive to frequencies between 200 and 10,000 Hz with the lower frequencies heard as lower or bass tones and upper frequencies as high tones. The frequencies are divided into octave bands on a logarithmic basis. The logarithmic center frequency of each octave band is such that each successive center frequency is twice the preceding center frequency. Common center frequencies used in octave band analysis are 63, 125 250, 500, 1,000, 4,000 and 8,000 (Hz). The middle range (e.g., 1,000 Hz) are heard best by the human ear, while the lower octaves (31.5 or 63 Hz) are perceived less and the upper octaves (4,000 or 8,000 Hz) are perceived a little better, even at high power. Various noise scales have been developed to describe the response of an average human ear to sound. The most common unit utilized to characterize noise levels is the A-weighted decibel ("dBA"), which weighs the various components of noise according to the response of the human ear. Because the human ear perceives the middle range of frequencies better than the high or low frequencies, the dBA scale assigns the middle range a much larger "loudness" value than higher and lower frequencies. With respect to human perception of noise, a change less than 2 dBA is generally not discernible. On average, a change of 3 dBA is required for the average person to detect a difference in the level of noise, and a change in the range of 5-6 dBA is noticeable and is considered to be an impact as referenced in **Table 3-4**.

[31] Rau, John G., Wooten, David C. *Environmental Impact Analysis Handbook*. McGraw-Hill, Inc. 1980.

TABLE 3-4
PERCEIVED CHANGES IN NOISE LEVEL

Change in dBA	Human Perception of Sound
2-3	Barely perceptible, threshold of detection
5-6	Readily noticeable
10	Doubling or halving of the loudness of sound
20	Dramatic change
40	Difference between a faintly audible sound and very loud sound

Source: USDOT, 1980[32]

The noise level associated with an urban area is typically 60 to 70 dBA, whereas a busy city street can be upwards of 90 dBA. **Table 3-5** provides typical noise levels as compared to a base reference of 60 dBA.

TABLE 3-5
COMMON NOISE LEVELS AND REACTIONS

Sound Source	Noise Level (dBA)	Apparent Loudness	Typical Human Reaction
Military Jet Air raid siren	130	128 times as loud	Limit of amplified speech
Amplified rock music	110	32 times as loud	Maximum vocal effort
Jet takeoff at 500 meters Train horn at 30 meters	100	16 times as loud	
Freight train at 15 meters	95		
Heavy truck at 15 meters Busy city street Loud shout	90	8 times as loud	Very annoying Hearing damage (after 8 hours)
Busy traffic intersection	80	4 times as loud	Annoying
Highway traffic at 15 meters Train horn at 500 meters Noisy restaurant	70	2 times as loud	Telephone use difficult
Predominantly industrial areas Light car traffic at 15 meters City or commercial areas Residential areas close to industry Noisy office	60	Base reference	Intrusive

[32] US Department of Transportation. *Highway Noise Fundamentals - Noise Fundamentals Training Document.* Federal Highway Administration, Washington, D.C. 1980.

Sound Source	Noise Level (dBA)	Apparent Loudness	Typical Human Reaction
Quiet office Suburban areas with medium-density transportation	50	1/2 as loud	Speech interference
Public library	40	1/4 as loud	Quiet
Soft whisper at 5 meters	30	1/8 as loud	Very quiet
	10	1/32 as loud	Just audible
Threshold of hearing	0	1/64 as loud	

Note: The minimum difference in noise level noticeable to the human listener is 3 dBA. A 10 dBA increase in level appears to double the loudness, while a 10 dBA decrease halves the apparent loudness.

Sources: NYSDOT, 1980[33] and White, 1975[34]

Town Noise Code

Chapter 185 of the Town Code contains the Town's noise ordinance, which was adopted by the Town Board in 1985. The noise ordinance contains general noise standards and noise pollution prohibition and provides exceptions to same. In any residential zoning district or adjacent to a residential zoning district, noise levels in excess of 65 dBA are prohibited or sound levels which has an octave band sound pressure level which exceeds the values in **Table 3- 6** in one or more octave bands are prohibited from 7:00 a.m. to 7:00 p.m. Between the hours of 7:00 p.m. to 7:00 a.m., noise levels in excess of 50 dBA are prohibited or sound levels which has an octave band sound pressure level which exceeds the values in **Table 3-7.**

[33] NYSDOT, Environmental Analysis Bureau. *Environmental Procedures Manual, Chapter 3.1, Noise Analysis. Procedures, Project Environmental Guidelines*. August 1998

[34] White, Frederick A. *Our Acoustic Environment.* John Wiley & Sons, Inc. 1975

TABLE 3- 6
DAY OCTAVE BAND SOUND PRESSURE FOR RESIDENTIAL DISTRICTS

Octave Band Center Frequency (Hz)	Octave Band Sound Pressure Level (dB)
31.5	85
63	80
125	74
250	67
500	62
1,000	58
2,000	53
4,000	50
8,000	47

TABLE 3- 7
NIGHT OCTAVE BAND SOUND PRESSURE FOR RESIDENTIAL DISTRICTS

Octave Band Center Frequency (Hz)	Octave Band Sound Pressure Level (dB)
31.5	75
63	70
125	64
250	57
500	52
1,000	49
2,000	43
4,000	40
8,000	37

As with the residential zoning district, properties within or adjacent to a commercial or industrial zoning district have noise standards. Specifically, noise levels in excess of 70 dBA or sound levels which has an octave band sound pressure level which exceeds the values in **Table 3- 6** above (same as residential) are prohibited from 7:00 a.m. to 7:00 p.m. Between the hours of 7:00 p.m. to 7:00 a.m., noise levels in excess of 55 dBA are prohibited or sound levels which has an octave band sound pressure level which exceeds the values in Table 3- 8**.**

TABLE 3- 8
DAY OCTAVE BAND SOUND PRESSURE
FOR COMMERCIAL OR INDUSTRIAL ZONING DISTRICTS

Octave Band Center Frequency (Hz)	Octave Band Sound Pressure Level (dB)
31.5	85
63	80
125	74
250	67
500	62
1,000	58
2,000	53
4,000	50
8,000	47

TABLE 3- 9
NIGHT OCTAVE BAND SOUND PRESSURE
FOR COMMERCIAL OR INDUSTRIAL ZONING DISTRICTS

Octave Band Center Frequency (Hz)	Octave Band Sound Pressure Level (dB)
31.5	78
63	73
125	67
250	60
500	55
1,000	51
2,000	46
4,000	43
8,000	40

There are certain exceptions to the provisions above contain in §185-4 of the Town Code. With respect to construction, the aforementioned provisions do not apply to construction activities occurring between the hours of 7:00 a.m. to 8:30 p.m. provided that such activities and use of equipment comply with other applicable provisions of the Town Code (e.g., noise pollution).

Existing Noise Environment

In April 2001, Dunn Engineering prepared a Noise Assessment for the 2001 DEIS and conducted noise readings at seven locations along the perimeter of the subject property based on varying conditions in the vicinity of the site. As the current activities along the southern end of the subject property have mostly remained the same since the 2001 DEIS, and as the land uses in the surrounding area have not drastically changed since 2001, Dunn Engineering's 2001 Noise Assessment has been utilized for the analysis of potential noise impacts associated with the Proposed Action and future redevelopment of the subject property.

According to Dunn Engineering's on-site decibel readings, the southern portion of the site was impacted by a notably higher ambient noise level as opposed to the north portion of the property. Transportation along Montauk Highway, surrounding commercial development, airplanes utilizing East Hampton Airport and outdoor activities associated with the three tenants on the southern portion of the subject property (Suffolk Cement, Southampton Brick and Tile and Grimes Contracting) attributed to elevated ambient noise levels. Based on these decibel readings, Dunn Engineering concluded that the range of observations of existing noise levels were "fairly typical of a suburban residential environment." As the southern area of the site abuts the Central Business District, which is predominantly development with commercial buildings, commercial activity contributes to noise levels at the subject property and in the surrounding area. Dunn Engineering determined that the commercial area was both more impacted by noise and was also less sensitive to noise impacts.

The single-family residential communities to the east and west of the subject property are the most sensitive to existing and future noise impacts. Dunn Engineering's noise readings indicated that the residences to the west of the subject property experienced higher ambient noise levels compared to residences along Hedges Lane.

Aside from the noise associated with occasional passing trains and noise from overhead airplanes, Dunn Engineering's monitoring station located near the Country School on Industrial Road indicated that ambient noise north of the subject site was low. This monitoring location was near the approach for Runway 16-34, in the northeastern portion of the site. However, as noted in the 2001 DEIS, Runway 16-34 is the shortest and least utilized of the three runways at the East Hampton Airport. Additionally, due to Runway 16-34's northwest/southeast orientation, the runway is primarily utilized during winter months when the prevailing winds are from the north and air traffic is at its seasonally lowest point.

<u>Odor</u>

Section 255-1-50 of the Town Code, entitled Nuisance Prohibited, states the following:

> *"In addition to the other regulations of land uses in this chapter, any trade, industry, activity or use which, when lawfully conducted, is determined to create toxic or harmful fumes, gases, smoke or odors or obnoxious dust, vapors, noises or vibrations disruptive of the quiet enjoyment of neighboring properties shall be prohibited".*

To date, no odor complaints have been made by Town residents. However, there have been several dust complaints due to existing operations at Suffolk Cement and potentially truck related dust.

Lighting

Chapter 255, Article I of the Town Code provides general zoning provisions for development in the East Hampton. Section 255-1-81 presents lighting provisions that control and regulate exterior lighting throughout the Town. The intent of this section of the Town Code is to "*promote public safety on the Town's roads and highways, protect landowners from the intrusive effects of glare and light trespass, preserve the rural character of the Town, and maintain and restore the beauty of the night sky.*" The following general lighting standards apply to all exterior lighting within the Town:

A. *Exterior lighting shall be designed, installed, and maintained to minimize glare.*
B. *Irrespective of any other provision herein, all lighting on new construction for which a building permit is issued after the adoption of this local law must be fully shielded.*
C. *No light source, as defined in § 255-1-20, shall be visible beyond the boundary of the property on which the light source is located, including from a body of water or roadway. House lights, as defined in § 255-1-20, temporary lighting, as defined in § 255-1-20, and landscape lighting, as defined in § 255-1-20, shall be exempt from this provision. All lighting not specifically exempted herein shall be fully shielded.*
D. *Prohibited lighting. The following types of lighting are prohibited:*
    1. *Uplighting, except as specifically permitted herein;*
    2. *Searchlights, including those that are transportable, except those used for governmental or emergency purposes;*
    3. *Strobe lights, laser lights or revolving lighting, including those that are transportable;*
    4. *Neon lights, except lawfully preexisting neon signs;*
    5. *Blinking, pulsating, tracing, or flashing lights, unless otherwise permitted herein, including those that are transportable;*
    6. *Utility-pole-mounted lights, as defined herein, unless the pole is existing and is not located within the street right-of-way;*
    7. *Lighting which is used to outline a building, structure or window;*
    8. *Any light fixture that may be construed as or confused with a traffic signal or traffic control device; and*
    9. *Any light source with a color temperature greater than 3,000 Kelvin (K).*
E. *Prohibited light fixtures. The types of light fixtures depicted in Appendix L2 to this chapter are prohibited unless otherwise specifically exempted herein (e.g., house lights).*

Currently, Southampton Masonry on the southeastern portion of the property contains outdoor lighting fixtures, which are attached to the exteriors of both showroom buildings. These light

fixtures are directed downward such that there is no spillover of exterior lighting onto surrounding roadways and properties.

3.2.2 Potential Impacts

Visual Character

Upon implementation of the Proposed Action, internal views of the subject property would be subject to change based on the planned commercial development in conformance with zoning. Internal areas would be graded, paved and finished to create roads and drainage features, as well as to achieve suitable grades for future development at each lot. Therefore, views of the site would change from unpaved dirt and gravel areas, overgrown vegetation, soil stockpiles, construction related equipment and vegetated trails, to graded land with a paved roadway network with street trees and meadow area lining same, with the intended use for phased construction of individual lots with buildings and parking characteristic of a commercial center. However, public views from the surrounding roadways would remain relatively similar to existing conditions given the limited views into the site due to surrounding visual impediments as described in **Section 3.2.1**. Glimpses of the new roadways may be visible from Hedges Lane, Wainscott Northwest Road and Old Montauk Highway, but these views would be an improvement over existing conditions such that stockpiles, construction equipment and overgrown vegetation would be removed.

The proposed internal roadway system will contain five roads that provide a road access and circulation system throughout the overall site. As illustrated on the **Preliminary Site Plans,** these roads include: Wainscott Commercial Drive West, Wainscott Commercial Drive East, DI Gate Drive and Georgica Drive. Access to the subject site is currently from Old Montauk Highway to the south and Georgica Drive to the west. Subsequent to the proposed subdivision and infrastructure improvements, access will continue to be provided from Old Montauk Highway and Georgica Drive. Once internal roads have been installed, access to the site will also be provided on the northwest corner of the site from Wainscott Northwest Road and from the northeast corner of the site from Daniels Hole Road. However, any vehicle exiting the subject property from the northeast of site will not be permitted to turn right onto Hedges Lane.

Views of industrial operations at Suffolk Cement and Southampton Masonry will not substantially change subsequent to the completion of the Proposed Action. Southampton Masonry will continue as a large stone and tile supply facilities with two concrete showroom buildings and Suffolk Cement will continue to operate as a concrete mixing plant. However, new landscaping consisting of native meadow areas and street trees will be installed along the southern perimeter of the subject property such that public views of both properties will be improved. New vegetation will screen views of the outdoor tile storage and stone and showrooms associated with Southampton Masonry and existing silos will be less visually prominent as a result of new vegetation which will provide partial screening and improved views into the site. Therefore, it is anticipated that views of both Suffolk Cement and

Southampton Masonry will be more obscured as a result of the Proposed Action, which will be an improvement over existing conditions.

As the exact nature of development at each lot is presently unknown (aside from Lots 21 and 22) and will be based on market demand, the site conditions for each specific site are no known. However, it is anticipated that individual sites will be developed in a similar configuration as the typical site plans included with this DEIS. Common driveways will access adjoining sites, buildings will be placed near the front yard setback area and parking will be distributed around the building with storage/loading to the rear, and stormwater retention/rain garden areas behind storage areas. Building style will be of typical commercial construction and sites will be landscaped with native shrubs and non-fertilizer dependent meadow. These sites will be constructed based on market demand and phased over time depending on these economic conditions and area needs.

Consequently, views of the subject property will change over time (possibly decades) and the nature of development will be commercial or industrial on small lots. All future uses will conform to the current CI zoning district requirements set forth in Chapter 255 of the Town Code, such that future buildings will not exceed the maximum permitted height of 35 feet/2 stories[35]. Thus, future buildings will be similar in height to the existing buildings at both the Southampton Masonry property and the Suffolk Cement property. Additionally, future buildings will be similar in height and appearance to existing structures in the vicinity of the subject property including two-story buildings within Wainscott Village and the industrial/warehouse type buildings along Montauk Highway (East Hampton Plumbing & Heating Supply and Home Sweet Home Moving & Storage Co.). All future uses will comply with the CI zoning district setback requirements.

As noted, vegetated buffers will be established along the eastern and western property boundaries to enhance the vegetation on the site and improve aesthetics in the transition between future uses and residences to the east and west. These buffers will consist of both natural wooded vegetation to be retained and new landscaped vegetation to be installed. Existing wooded vegetation along the eastern property boundary will be utilized as buffer to screen internal views of the site from the residences along Hedges Lane. The buffer along the western property boundary will screen views of the site from residences west of Wainscott Northwest Road. Rain gardens/bio-detention areas consisting of native plantings will also be established at the rear of each lot. It is anticipated that rain gardens at lots adjacent to residential neighborhoods (Lots 9 and Lots 23 through 42) will consist of perennials and small shrubs, while rain gardens at lots adjacent to the LIRR (Lots 1 through 8) will contain trees and scrubs to screen internal views of the subject property from commuters; all other rain gardens would contain a combination thereof. Street trees will be installed along the proposed internal roadway systems throughout the subject property to provide additional screening from neighboring properties.

[35] Unless appropriate relief is requested and approved.

Noise

Construction on the project site will involve site preparation operations (grading and clearing, excavation utilizing bulldozers, excavators, front-end loaders and similar earth moving equipment) and construction/installation activities (involving trucks and use of stationary equipment/generators such as cement mixers/spreaders). Noise levels will vary based on the construction phase, but typically heavy equipment utilized during the site preparation phase results in the highest levels of noise associated with development. Sound levels during construction are intermittent as well as variable depending on the type of work being completed during various phases of the construction process.

Construction noise is inevitable in the short term and will be audible to surrounding residents; however, this impact is unavoidable and will be mitigated by limiting construction during hours prescribed by Chapter 185 of the Town Code. In accordance with §185-4.B, contractors will be required to limit the hours of construction to within the period of 7:00 a.m. and 8:30 p.m. on weekdays. It is further noted that construction noise will occur regardless of what future uses are developed on the site and as a result, the subdivision itself will not change the potential for construction related noise.

It is anticipated that noise from vehicles on local arterials, Montauk Highway, Old Montauk Highway, Sunrise Highway, as well as commercial activity along Montauk Highway will continue to be the dominant source of noise in the area following the proposed subdivision. Airplanes utilizing the East Hampton Airport and the LIRR will also continue to contribute to noise in the area subsequent to implementation of the Proposed Action.

As previously stated in **Section 3.1.2**, the Applicant has proposed to waive by covenant certain intensive permitted and specially permitted business and industrial uses at the subject property. It is expected that the majority of the future uses will consist of small service commercial contractors, wholesale and warehouse business (e.g., building supply distribution, storage yards, lumber and building products). The elevation of the final grade of the proposed action will be lower than that of surrounding properties and will act as an addition noise buffer. It is anticipated that Suffolk Cement and Southampton Masonry will continue to be the main contributors to elevated ambient noise levels at the subject property and as noted, these uses are currently existing. The dominant noise in the area emanates from off-site as a result of Montauk Highway and the East Hampton Airport, and significant changes to the noise environment are not expected as a result of the Proposed Action given the existing noise levels on the site and area.

Odor

The types of use anticipated to occupy the site (small service commercial contractors, wholesale and warehouse businesses) would not tend to generate significant adverse odors. The Applicant intends to prohibit certain intensive land uses that may be more likely to generate odors. It is more likely that industrial land uses (e.g., air terminal, filling station, recycling and scrap yard) on large lots would generate objectionable odors than the proposed subdivision and associated development of small commercial/industrial uses on small lots. In

addition, the setbacks of uses within the site, the retention of pitch pine-oak forest and proposed landscaping along the eastern and western property boundaries, and the installation of new landscaping and street trees along the southern property boundary (along Old Montauk Highway) are anticipated to help to mitigate any unforeseen odor impacts. Based on this information, significant odors from the subject action are not anticipated.

Lighting

Although outdoor lighting is a necessary component of development, excessive outdoor lighting or improperly located and designed lighting can result in a variety of environmental impacts, such as glare, light trespass, skyglow (a condition that affects views of the night sky), energy consumption, aesthetic and community character impacts from light, and effects on wildlife, particularly nocturnal species. Land uses near the subject property that may be sensitive to outdoor lighting include nearby residential land uses, public streets and highways and any surrounding properties which must be protected from glare and excessive spillover of errant light.

The Town Code, Section 255 provides lighting requirements that mitigate these impacts through site design, review and conformance with properly installed lighting. All future lighting will be consistent with Town requirements outlined in §255-1-81 through §255-1-84 of the Town Code, including installation of dark-sky compliant lighting at each lot that is shielded and directed downward to minimize glare to adjacent properties and roadways. Exterior lighting will be provided at each lot and along the proposed roadways throughout the subject property to allow adequate visibility and to increase site security. Lighting plans for each lot will be submitted to the Planning Department on a lot-by-lot basis during the site plan review stage.

Existing vegetation to remain and proposed vegetation within the property will act as light barriers to provide additional screening from nearby properties. The elevation of the final grade of the proposed action will be lower than that of surrounding properties and will act as an addition lighting buffer. As such, there would minimal-to-no light spill-over from the subject property onto neighboring properties or roadways as a result of the Proposed Action and future development of the subject property.

3.2.3 Proposed Mitigation

- While no unavoidable noise and/or odor impacts are anticipated, the following mitigation is inherent in the Proposed Action:
  - The Applicant intends to prohibit certain intensive land uses that may be more likely to generate noise and odors (e.g., air terminal, filling station, recycling and scrap yard).
  - The site preparation and construction will inevitably result in elevated noise for neighboring properties. Strict adherence to time periods when construction related noise is exempt from the maximum permitted levels including in Chapter 185 (Noise) will minimize construction related noise impacts.
  - The retention of pitch pine-oak forest and installation of landscaping along the eastern and western property boundaries, new landscaping along the southern

property boundary, installation of street trees throughout the new internal roadway and rain gardens/bio-detention areas at the rear of each lot will all provide mitigation of any unforeseen noise, odor, or light impacts.

- Lighting plans for each lot will be submitted to the Planning Department on a lot-by-lot basis during the site plan review stage. All lighting will conform to East Hampton Town Code lighting standards outlined in §255-1-81 through §255-1-84.

3.3 Community Services

3.3.1 Existing Conditions

The various community services and utilities necessary to serve the project include public education (public schools), police and fire protection, public water service, recreational facilities, and electric and natural gas utilities (**Figures 3-3, 3-4 and 3-5**). This section of the DEIS identifies the specific community and utility service providers that will serve the site, as well as supporting information, as available, regarding service availability, demand, costs and property tax revenue implications. Each affected utility or service provider was contacted twice in writing to inform them of the project and to request general information and input with respect to their ability to serve the proposed subdivision under the current zoning and any issues or concerns they may have. **Appendix G** contains the referenced correspondence with community service providers.

<u>School District</u>

The subject site is within the service area of the Wainscott Common School District. This district offers a K-3 education program at a one room schoolhouse located in Wainscott's most historic setting after which students have the option to attend schools within the East Hampton Union Free School District or the Sag Harbor Union Free School District. Education is paid for through taxation of the school district. **Figure 3-3** illustrates the boundaries of the Wainscott Common School District and adjoining districts. The site currently generates tax revenue to the school district, with no burden on the need to provide educational services as the subject site is zoned for commercial-industrial use.

<u>Police Protection</u>

The site of the Proposed Action and surrounding area are located within the jurisdiction of East Hampton Town Police Department (**Figure 3-4**). The Town Police Department serves visitors and residents of the Town of East Hampton. According to the Police Department's website,[36] the Department has 63 sworn police officers serving in patrol, detectives, supervisory, administrative and specialized unit roles. The Town of East Hampton Police Department headquarters are located at 131 Wainscott Northwest Road, immediately northwest of the subject property, beyond the LIRR right-of-way. The Police Department is located less than 1

[36] https://ehamptonny.gov/193/Police

mile from the entrance of the subject property or about a 3-minute drive or less for police vehicles with lights and sirens patrolling the area.

Existing on-site security measures include the use of closed-circuit television cameras (CCTV) on both the Suffolk Cement and Southampton Masonry properties. All entrance and exit gates on the southern end of the subject property are closed and locked after business hours.

Fire Protection and Ambulance and Medical Services

The site areas to the west and south are located within the jurisdiction of the Bridgehampton Volunteer Fire District (**Figure 3-5**), which provides both fire protection and emergency medical services to the area. The areas to the north, east and southeast are located within the jurisdiction of the East Hampton Fire District and East Hampton Village Ambulance Association. The Bridgehampton Volunteer Fire Department currently serves the hamlets of Bridgehampton, Sagaponack, Watermill (portion of hamlet), Noyack (portion of hamlet) and the southern portion of the hamlet of Wainscott (west of Georgica Pond).

The Bridgehampton Volunteer Fire Department is a not-for-profit organization that was founded in 1895 and was originally named the Bridgehampton Hook and Ladder Company. In December 1946, the Fire Department acquired an ambulance squad which evolved into an EMS company. In addition to the EMS Company, the Fire Department also includes a Light and Hose Company, Mack Company, Packard Company, Rescue Squad and a Water Rescue and Recovery Team.

The Fire Department is located at 64 School Street in the Hamlet of Bridgehampton, which is approximately four miles away and a 10-minute drive to the site. The Fire Department's website[37] indicates it currently has the following fire and emergency apparatus:

Engine 722 2004 Seagrave Put in Service: 1982	Engine 727 International 1700 4x4 Put in Service: 1972	Vehicle 723 International 4WD, outfitted by Marion Put in Service: 1990
Vehicle 728 International 4WD, outfitted by Marion Put in Service: 2001	Rescue 7210 FWD/Seagrave 4x4 Put in Service: 1990	Engine 725 Mack, outfitted by E-One Put in Service: 1990

[37] http://www.bridgehamptonvfd.org/

Vehicles 7216 and 7217 Type III Super Duty E-450, outfitted by AEV American Emergency vehicles Put in Service: 2016	Vehicle 7211 Figherfighter Rehab International 4700 LP, Type II ambulance Put in Service: 1996	Vehicle 729 Dodge Ram 2500 4x4 Fire Police Unit with Cummings Turbo Diesel Put in Service: 2001
Vehicle 726 Chevrolet 30 Fire Police Unit Put in Service: 1982	Vehicle 7214 Dodge 300 Generator Truck Put in Service: 1977	Vehicle 7215 Ford F-150 4x4 Fire Police Unit Replaced in 2001
Vehicle 721 Ferrara HD-77 Quint Ladder Truck Put in Service: 2016	Engine 7254 Mack Truck Put in Service: 1954, Mostly Retired	

Source: Bridgehampton Fire Department website, Accessed May 2019

Water Supply

The subject property is in the SCWA Distribution Area 23, which currently serves the Southampton Masonry yard. Existing SCWA water mains within proximity to the subject property include a 12 inch/16 inch water main beneath Montauk Highway/Old Montauk Highway, a 16 inch water main beneath Wainscott Northwest Road and a 12 inch/16 inch water main beneath Hedges Lane. These existing water mains have been supplemented by the recently completed Wainscott Water District which has extended public water mains to the entire portion of the Hamlet of Wainscott located south of the LIRR right-a-way (map of Wainscott Water District is attached as **Appendix C**). As depicted on the Wainscott Water District map (drafted May 8, 2018) new water mains have been installed beneath Old Montauk Highway, Montauk Highway, Hedges Lane and Wainscott Northwest Road. Connection to the existing water distribution system would, therefore, be relatively easy, as mains are currently present and would only require site service connections and extension of water distribution lines to the site. A SCWA wellfield is present along the north side of East Hampton-Sag Harbor Turnpike, northeast of the subject property. A new SCWA well field has recently been installed northeast of the subject property on Stephen Hands Path (near Bull Path). SCWA services are paid by user fees based on user consumption meters. The Applicant is coordinating with SCWA regarding water demand for the project.

Existing water usage for both Southampton Masonry and Suffolk Cement were calculated based on existing structures depicted on Fox Land's 2007 survey. Utilizing a density load factor of 0.04 gpd per square foot for general industrial uses and a density load factor of 0.06 gpd per square foot for non-medical office space (office space above the Southampton Masonry tile showroom), existing water usage for both uses is 964± gpd.

Wastewater Treatment and Disposal

The subject property is not located within a sewer district. Sewage disposal for the existing masonry and tile supply yard is currently handled via individual on-site septic systems. The nearest sewer district is the Village of Sag Harbor Sewer District approximately 4 miles northwest of the subject property.

Sanitary waste currently generated from Southampton Masonry and Suffolk Cement was calculated and is estimated to be 964± gpd based on a hydraulic load factor of 0.04 gpd per square foot for general industrial uses and a hydraulic load factor of 0.06 gpd per square foot for non-medical office space.

Energy Supply

PSEG Long Island is the public utility in the area that will provide electrical power to the project site. Above ground electrical utilities are available along Montauk Highway, Old Montauk Highway, Hedges Lane and Wainscott Northwest Road. National Grid serves as the natural gas provider for the area. Natural gas mains are located along Montauk Highway and Old Montauk Highway.

Solid Waste Disposal

The Town does not provide solid waste collection services to any land uses in the Town. In these instances, the property or business owner must contract with a private carter for solid waste removal and disposal services. Therefore, solid waste currently generated by the existing uses at the subject property is kept in dumpsters and removed by a private licensed waste hauler. The Town utilizes the East Hampton Recycling Center located at 260 Springs Fireplace Road, and the Montauk Transfer Station located at 365 Montauk Highway. Solid waste and recyclable materials are accepted from private carters at the Town facility, for a fee.

Based on the estimated building square footage of structures associated with Southampton Masonry (approximately 17,950 SF) and a factor of 1.2 pounds per day per 1,000 square feet for warehouses, it is estimated that approximately 21.5 pounds of solid waste per day is generated by Southampton Masonry. Similarly, the estimated tons of solid waste per month generated by Suffolk Cement was calculated. Based on the estimated square footage of existing structures (approximately 5,020 SF) and a factor of 2.0 pounds per day per 100 square feet for warehouses, it is estimated that approximately 100 pounds of solid waste per day is generated by Suffolk Cement.

3.3.2 Potential Impacts

The proposed project will be developed in conformance with existing zoning. The use will involve dedication of roads which will require Town highway service and maintenance. Commercial-industrial uses help support community services with tax revenues. The proposed project will increase taxation for the subdivision and as individual lots are developed based on the assessment methods of the Town of East Hampton Assessor's office. This will result in distribution of tax revenue to the Town, County, Wainscott Common School District, East

Hampton Library, Bridgehampton Fire District and other taxing jurisdictions. Community service providers were contacted by letter to inform them of the proposed project, and the request letters and any subsequent communications are included in **Appendix G**.

School District

The Wainscott Common School District will experience an increase in tax revenue as a result of the proposed project. There will be no increase in the need for educational services as the subject site is zoned for commercial-industrial use. As a result, there will be no adverse impact to the school district, but the realization of taxes over time as individual sites become occupied by uses permitted by zoning (subject to prohibition of certain more intense uses), will create a fiscal benefit to the school district.

Police Protection

The project site is located within the jurisdiction of East Hampton Town Police. A letter was sent to the Police Department on April 25, 2019 informing it of the location of the proposed project, potential future development, and requesting input regarding the Department's ability to serve the subject property and any issues and concerns it may have. A follow-up letter dated August 29, 2019 was sent to the Police Department. In a response letter dated October 9, 2019, Chief Sarlo indicated that the Police Department "is capable of handling the increase in calls that may be associated with the commercial development of this site." Chief Sarlo also noted that there are always concerns with additional growth in the area and the associated increase in police services as a result of new development. However, buildout of the site will occur over years or decades and each individual lot will require site plan review. The Applicant will continue to consult with the East Hampton Town Police as each individual lot is developed.

The proposed project does not involve introduction of a permanent residential population at the subject property as a result of the Proposed Action, as future uses at the subject property would be commercial or industrial in nature. It is anticipated that future uses will utilize CCTV security cameras similar to those on proposed Lots 21 and 22. Moreover, once a new access point at the northwest corner of the subject property from Wainscott Northwest Road has been established, the Police Department will be less than a quarter-mile from same or less than a 1-minute drive or less for police vehicles. Therefore, no significant adverse impacts with respect to security and police protection are anticipated.

Fire Protection and Ambulance and Medical Services

Development of future lots over time will incrementally increase the potential need for the services of the Bridgehampton Volunteer Fire Department. Future building construction will include the use of approved building materials and fire safety infrastructure per the NYS Building Code and the NYS Fire Safety Code to assist with fire control. New access points from Wainscott Northwest Road and Daniels Hole Road, in addition to existing access points along Old Montauk Highway and Georgica Drive, will provide safe and convenient access to local road network from the subject property over current conditions. These accesses will be suitable for

emergency vehicles and will include installation of fire hydrants if and where required during the site plan review process, and on a lot-by-lot basis, if necessary.

On April 25, 2019, a letter was sent to the Bridgehampton Volunteer Fire Department requesting general background information about the District, an assessment of its ability to serve the proposed project, and whether it had any concerns over the project. A follow-up letter dated August 29, 2019 was sent to the Fire Department. A response to these letters had not been received as of the date of this DEIS and any further information received will be included in the FEIS.

Based on the anticipated proposed building methods and prior outreach to the Fire District, no adverse impacts to the Bridgehampton Volunteer Fire Department have been identified.

Water Supply

As part of the proposed infrastructure improvements, water lines would be extended throughout the subject property to provide public water to each lot. SCWA will continue to serve the Southampton Masonry and future buildings at each lot by on-site water mains connecting to water mains beneath surrounding roadways (i.e., Old Montauk Highway, Wainscott Northwest Road and Hedges Lane), to be determined by SCWA. Development of all future lots at the subject property will include connection to the newly created Wainscott Water District, which will be the exclusive water supplier to the site.

For the purposes of evaluating potential environmental impacts in this DEIS, a potential yield was estimated to project the magnitude of development that could occur at the subject property over several years and possibly decades. As it is anticipated that future development at each lot will consist of commercial/industrial uses, hydraulic load factors of 0.04 gpd per square foot for general industrial uses and 0.06 gpd per square foot for non-medical office space are anticipated. Potential potable water demand resulting from full buildout of the subject property and continuation of the Suffolk Cement and Southampton Masonry uses is estimated to be 16,016± gpd. However, this does not account for potential landscaped irrigation at each lot which will be minimal given the use of native vegetation. It is anticipated that future developments at all lots will be connected to the newly created and expanded Wainscott Water Supply District, which will be evaluated during the Site Plan approval process for each project proposed. Future projects will be required to undergo review by the SCWA to ensure availability and adequate water supply for anticipated water demand, which will be reviewed on a lot-by-lot basis. The SCWA provides potable drinking water to its customers, based on established user fees rather than through property tax assessments. Future uses will therefore be required to pay their share of water delivery costs based on the volume of water used and user fees.

Consultations have been undertaken with the SCWA and a letter requesting water availability, water supply problems and issues or concerns it may have regarding the project was submitted to the SCWA on April 25, 2019. A follow-up letter dated August 29, 2019 was sent to the SCWA. In a letter dated October 10, 2019, SCWA provided the locations of the wellfields closest to the subject property and information regarding PFAS in private wells in the surrounding area.

Additionally, SCWA indicated that as the buildout of the site will occur over a number of years and possibly decades, it is "difficult to fully analyze prospective issues as they relate to supply." The Applicant will continue to consult with the SCWA as the as each individual lot is developed. Water demand for each use will also be determined on a lot-by-lot basis during the site plan review process.

Based on the foregoing, the subdivision of the subject property and future development at each lot (based on future market conditions) are not anticipated to result in significant adverse impacts with respect to water supply.

Wastewater Treatment and Disposal

Over time and based on market conditions, individual lots will be proposed for development. The proposed lots will generate sewage as they are developed. The schedule for development and the exact uses are not known; however, all development will conform to the use provisions of the CI zoning district and will be subject to site plan review and in some cases special permit review by the Town Planning Board. As a result, the exact sanitary waste generation cannot be determined at this time; however, the use of the site will conform to applicable Articles of the SCSC and Town requirements, and is subject to further analysis herein.

Potential sanitary waste to be generated at the subject property at full buildout could be 16,016± gpd. Due to the potential sanitary flow estimated and the subject property's location within Suffolk County GMZ V, individual subsurface sewage disposal systems can be utilized at each future lot such that a sewage treatment plant would not be required to treat potential wastewater generated by future development. It is anticipated that "innovative and alternative on-site wastewater treatment systems" (I/A OWTS) will be installed, in conformance with the Town Code's Low Nitrogen Sanitary System requirements and Article 19 of the SCSC. When properly designed, installed and maintained, these systems will significantly reduce nitrogen and, in many cases, reduce or eliminate levels of other contaminants of concerns (e.g., pharmaceuticals, personal care products, and volatile organic compounds). Currently, approved systems are designed to reduce total nitrogen in treated effluent to a maximum of 19 mg/l which is the SCDHS standard for approval of these systems. The use of I/A OWTS/Low Nitrogen Sanitary System technologies at the subject property reduce total nitrogen in treated effluent to less than 19 mg/l and possibly lower as many existing approved systems are resulting in total nitrogen in effluent of well under the standard. In addition, since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced.

Based on the design the proposed sewage disposals systems, it is not expected that the Proposed Action will have a significant impact with respect to sewage disposal. Additional information on water resources is presented in **Section 2.3**.

Energy Supply

Subsequent to the proposed subdivision, infrastructure improvements would include installation of underground internal electric and natural gas lines. Connections will be made to

each utility through the creation of an internal distribution network within the subject property. PSEG Long Island is the public utility that provides electrical power to the region and above ground electrical utilities are currently available along Old Montauk Highway, Montauk Highway, Hedges Lane and Wainscott Northwest Road. National Grid is the natural gas provider in the area. Letters were sent to PSEG Long Island on April 25, 2019 and National Grid on May 13, 2019 to confirm that they will supply the necessary electrical and natural gas utilities. A letter dated February 22, 2018 was received from PSEG Long Island stating that they "will provide service to the above-referenced project in accordance with [its] filed tariffs and schedules in effect at the time of service." Follow-up letters dated August 29, 2019 were sent to PSEG and National Grid. A response to these letters had not been received as of the date of this DEIS and any further information received will be included in the FEIS.

Both utilities routinely provide service to developments on Long Island when facilities are present in the service area in accordance with their filed tariffs and schedules in effect at the time service. It is anticipated that both of these energy supply companies maintain adequate resources to supply the proposed project and that service will be able to be provided. In addition, energy saving devices will be utilized, where practical, to reduce the total energy demand that will be required.

Solid Waste Disposal

As the exact nature of development at each lot is presently unknown (aside from Lots 21 and 22) and will be based on market demand, the exact amount of solid waste expected to be generated cannot be estimated at this time. However, based a total of 376,296± SF of building coverage that may occur at the site at full buildout and continued operation of Suffolk Cement and Southampton Masonry uses, solid waste generation could be 7,647.9± pounds per day. This is based on a factor of 2 pounds per day per 100 SF of warehouse space and is a worst-case analysis for solid waste generation.

The Town does not provide solid waste collection services to any land uses in the Town. In these instances, the property or business owner must contract with a private carter for solid waste removal and disposal services. The Town accepts solid wastes and recyclables from private carters at the Town facility, for a fee. Solid waste generated by future development will be kept in dumpsters and removed by a private licensed waste hauler, similar to existing operations for the current uses at the subject property.

3.3.3 Mitigation

- Adherence to the NYS Fire and Building Codes will increase the level of safety from fires. In addition, fire/smoke alarms in all of the buildings will assist in minimizing the incremental increase in demand for fire protective services. Hydrants will be installed if, and where required by the Town and Fire Marshal to ensure that an appropriate water supply is available for firefighting purposes.
- Planting of native landscaping and retaining existing wooded area along the eastern and western property boundaries will help reduce water demand, and fertilizer and pesticide demands.

- The project site will connect to the available public water supply and the Applicant will work with the SCWA to determine which water mains the overall subject property will connect to beneath surrounding roadways.
- All future uses will utilize I/A OWTS/Low Nitrogen Sanitary System technologies to reduce total nitrogen in treated effluent to less than 19 mg/l and possibly lower as many existing approved systems are resulting in total nitrogen in effluent of well under the standard. In addition, since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced.
- Energy saving devices will be utilized, where practical, to reduce the total energy demand that will be required.

3.4 Transportation

3.4.1 Existing Conditions

Appendix H contains the full Traffic Impact Study (TIS) prepared by Dunn Engineering Associates, P.C. for the proposed subdivision and **Conceptual Site Plan**. The following summary of existing traffic conditions, as well as the anticipated impacts of the proposed project, has been excerpted from that document.

As part of the preparation of the TIS, the following tasks were undertaken:

1. On-site field observations were made to observe the traffic movements under various conditions.
2. A physical inventory was made of the adjacent street network.
3. Traffic volume data was obtained from the New York State Department of Transportation (NYSDOT).
4. Supplementary intersection turning movement traffic counts were collected as necessary to update the available volume counts.
5. 24-hour Automatic Traffic Recorder (ATR) counts were collected at key intersections to supplement the manual counts and NYSDOT traffic volumes.
6. An examination was made of the traffic flow on Montauk Highway (New York State [NYS] Route 27), Old Montauk Highway, Wainscott Northwest Road, Daniels Hole Road, Industrial Road, and Wainscott Stone Road.
7. Recent accident records were obtained from the NYSDOT.
8. A trip generation analysis was performed to determine the additional traffic attributable to the Proposed Action.
9. Directional distribution analyses were made to distribute the site-generated traffic onto the surrounding street network.
10. Trip assignment analyses were performed to examine the composite traffic volumes that would result due to the addition of the site-generated traffic, in order to determine traffic impacts on the adjacent roadways.

11. Capacity analyses were performed at key intersections to examine their ability to accommodate the addition of the site-generated traffic.
12. A review of the access plan and proposed internal roadway network was made.
13. Roadway improvements were examined to determine their potential to safely handle the increase in traffic generated by the Proposed Action.
14. A review was made of the East Hampton Hamlet Report for Wainscott in regard to Transportation issues and recommendations.
15. Conclusions were made of the traffic impacts associated with the Proposed Action.

Roadway Characteristics

The following is a list of roadways included in the study network surrounding the subject property:

Montauk Highway (NYS Route 27) is an east/west State roadway which provides access to the site at its junction with Old Montauk Highway. NYS Route 27 is a three-lane roadway with a two-way center left turn lane west of the junction with Old Montauk Highway. East of this junction the two-way center left turn lane is discontinued, and NYS Route 27 is a two-lane road. Paved shoulders of varying width exist in the vicinity of the site, and no parking is permitted. A bike lane exists on both the south and north sides of NYS Route 27 in the vicinity of the site.

Old Montauk Highway forms a loop on the north side of NYS Route 27. It meets NYS Route 27 in the vicinity of the existing southerly site access driveway (which is proposed to remain in a reconfigured form), and again approximately 1500 feet to the east. This roadway is a wide, two-lane road with very limited traffic, and is used primarily as a parking area for traffic pulling off of NYS Route 27and as access to Hedges Lane.

Wainscott Northwest Road is a north/south Town road. Wainscott Northwest Road is a two-lane roadway from NYS Route 27 north to Industrial Road, and crosses the Long Island Railroad tracks at an at grade crossing equipped with gates and flashing beacons.

Wainscott Stone Road is a north/south Town road which does not abut or provide direct access to the site. It is a two-lane facility south of its intersection with NYS Route 27, east of the site.

Daniels Hole Road is a north/south Town road. Daniels Hole Road is a two-lane roadway from its intersection with NYS Route 27 east of the site to Industrial Road. It crosses under the LIRR tracks through a very narrow underpass with only nine (9.0) feet of vertical clearance.

Hedges Lane is a north/south private roadway. No site access is provided from this roadway, which is a partially paved path of approximately 20 feet in width. It meets Old Montauk Highway east of the site and meets Daniels Hole Road just south of the underpass with the Long Island Railroad.

Industrial Road is an east/west Town road which does not abut or provide direct access to the site. It is a two-lane road north of the LIRR tracks, and connects Wainscott Northwest Road with Daniels Hole Road.

Bathgate Road is an east/west Town road which connects Wainscott Northwest Road to an existing access point in the southeast corner of the site. It is a two-lane road which provides access to the rear of the commercial developments located on NYS Route 27 east of Wainscott Northwest Road.

Georgica Drive is a north/south Town road with one lane in each direction which connects Bathgate Road, in the vicinity of the existing site access, to NYS Route 27. Southbound to westbound right turns onto Bathgate Road are prohibited.

Major Intersections

The following intersections are located in the vicinity of the site and were investigated as part of the TIS:

1. NYS Route 27 at Wainscott Northwest Road
2. NYS Route 27 at Georgica Drive
3. NYS Route 27 at Old Montauk Highway
4. NYS Route 27 at Wainscott Stone Road
5. Wainscott Northwest Road at Industrial Road
6. Daniels Hole Road at Industrial Road

The lane configuration at the signalized intersection approaches of NYS Route 27 and Wainscott Northwest Road consist of the following:

Intersection	Lane Configuration
Northbound Wainscott Northwest Road	A separate left turn lane and a combined thru/right turn lane
Southbound Wainscott Northwest Road	A combined left turn/thru/right turn lane
Westbound NYS Route 27	A separate left turn lane and a combined thru/right turn lane
Eastbound NYS Route 27	A separate left turn lane and a combined thru/right turn lane

The lane configuration at the unsignalized T-intersection approaches of NYS Route 27 and Georgica Drive consists of the following:

Intersection	Lane Configuration
Southbound Georgica Drive	A combined left turn/right turn lane
Westbound NYS Route 27	A combined thru/right turn lane
Eastbound NYS Route 27	A two-way left-turn lane and a thru lane

The lane configuration at the unsignalized T-intersection approaches of NYS Route 27 and Old Montauk Highway consist of the following:

Intersection	Lane Configuration
Southbound Old Montauk Highway	A combined left turn/right turn lane. No pavement markings or signing is present to indicate lane assignments
Westbound NYS Route 27	A combined thru/right turn lane
Eastbound NYS Route 27	A separate left turn lane and a thru lane

The lane configuration at the unsignalized approaches of NYS Route 27 and Wainscott Stone Road consist of the following:

Intersection	Lane Configuration
Northbound Wainscott Stone Road	A combined left turn/thru/right turn lane
Southbound Wainscott Stone Road	A combined left turn/thru/right turn lane
Westbound NYS Route 27	A combined left turn/thru/right turn lane
Eastbound NYS Route 27	A combined left turn/thru/right turn lane

The lane configuration at the unsignalized approaches of Industrial Road and Wainscott Northwest Road consist of the following:

Intersection	Lane Configuration
Northbound Wainscott Northwest Road	A combined left turn/thru/right
Westbound Industrial Road	A combined left turn/thru turn lane
Eastbound Industrial Road	A combined thru/right turn lane

The lane configuration at the unsignalized T-intersection approaches of Industrial Road and Daniels Hole Road consist of the following:

Intersection	Lane Configuration
Northbound Daniels Hole Road	A combined left turn/thru lane
Southbound Daniels Hole Road	A combined thru/right turn lane
Eastbound Industrial Road	A combined left turn/right turn lane

The grades on NYS Route 27, Old Montauk Highway, Wainscott Northwest Road, Wainscott Stone Road, Daniels Hole Road, Bathgate Road, Georgica Drive, and Industrial Road and their intersections in the vicinity of the site are essentially flat. The only restriction to sight distance in the study area exists on Daniels Hole Road, where the narrow and low railroad overpass limits visibility to the north and a horizontal curve on Daniels Hole Road limits visibility to the south.

Traffic Volume Data

Intersection turning movement counts and 24-hour ATR counts were collected in August 2017 using video technology for traffic in both directions on NYS Route 27. As the traffic volumes on the east end of Long Island are seasonal in nature, these counts represent the worst-case summer season and are referred to as the existing traffic volumes.

According to the NYSDOT, the average daily traffic volume on NYS Route 27 in the vicinity of the site is approximately 19,000; however, during the summer, the average daily traffic volume is approximately 25,000 vehicles per day. Intersection turning movement traffic volume counts were collected at the following locations:

- NYS Route 27 at Wainscott Northwest Road
- NYS Route 27 at Georgica Drive
- NYS Route 27 at Old Montauk Highway
- NYS Route 27 at Wainscott Stone Road
- Wainscott Northwest Road at Industrial Road
- Daniels Hole Road at Industrial Road

Intersection turning movement counts were taken for the weekday morning and afternoon peak hours as well as the Saturday mid-day hours at these intersections.

Traffic volume information indicated that the peak weekday morning traffic volumes occur between 8:00 and 9:00 AM. The peak weekday afternoon traffic volumes occur between 4:00 and 5:00 PM. The peak weekend traffic volumes occur on Saturday from noon to 1:00 PM (see **Appendix H** for additional traffic volume information).

Truck Traffic

Special consideration of the Suffolk Cement operation is appropriate due to the nature of the heavy truck traffic generated by this land use. Suffolk Cement operates five to ten large cement trucks, and typically generates approximately 50 truck trips on a typical day during April

through July. A maximum of 70 truck trips can be generated over a ten hour period (7:00 AM to 5:00 PM) on extremely busy days.

Most of this truck traffic utilizes NYS Route 27, which already handles most of the commercial traffic serving the East End. However, approximately 20 percent of the truck traffic generated by Suffolk Cement utilizes Wainscott Northwest Road to travel north of the site. In order to reach Wainscott Northwest Road, truck traffic from the site must currently use Bathgate Road or Montauk Highway. Therefore, all northbound truck traffic presently travels Wainscott Northwest Road over nearly the entire length from NYS Route 27 to Industrial Road, passing residential neighborhoods to the west of the site. The proposed site access plan provides access to Wainscott Northwest Road at the north end of the site, which will reduce the amount of truck traffic, including heavy trucks, along the residential area of Wainscott Northwest Road.

Accident History

Accident data were obtained from the NYSDOT for NYS Route 27 between East Gate Road and Wainscott Stone Road in the vicinity of the site for the last three years (from April 1, 2016 through March 31, 2019). The data was reviewed and is summarized in **Table 3-10**.

TABLE 3- 10
Accident Summary for NYS Route 27

Location	Number of Accidents			3-Year Total
	4/1/16 to 3/31/17	4/1/17 to 3/31/18	4/1/18 to 3/31/19	
Between East Gate Road and the signalized intersection at Wainscott Northwest Road	4	4	5	13
NYS Route 27 at the signalized intersection at Wainscott Northwest Road	2	4	6	12
Between Wainscott Northwest Road and Georgica Drive	4	1	1	6
NYS Route 27 at Georgica Drive	2	1	1	4
Between Georgica Drive and Old Montauk Highway	2	0	3	5
NYS Route 27 at Old Montauk Highway	0	0	1	1
Between Old Montauk Highway and Wainscott Stone Road	1	0	3	4
NYS Route 27 at Wainscott Stone Road	3	0	4	7

As depicted in the table above, the data indicates that the majority (48 percent of the total accidents in the vicinity of the site) occurred on NYS Route 27 west of the site from April 1, 2016 through March 31, 2019, with an average of approximately 8 accidents per year (see Accident Records in **Appendix H**). Based on the accident verbal descriptions, it was concluded that the predominant types of accidents occurring along this roadway section are rear end accidents due to driver inattention. However, due to the slow nature of traffic with lower

speeds, injuries were rare. No other apparent patterns in pavement conditions, lighting conditions, etc. were identified. However, it is typical of a roadway section in advance of a signalized intersection and a hamlet downtown area to experience a number of accidents due to the high volumes of traffic accommodated downstream of the intersection. The types of accidents that occurred in advance of the signalized intersection at Wainscott Northwest Road (west of the site) were the types of accidents that would happen at any typical signalized intersection.

Based on the number of accidents (52) that occurred over a three year period, the accident records obtained from the NYSDOT were broken down to determine the type of accidents, the cause of the accident, classification of property damage, personal injury, or death, as well as the contribution of weather conditions and roadway conditions. A summary of this information is contained in Table 2 of the TIS (see **Appendix H**).

Many of the accidents were rear end collisions during slowed or stopped traffic, which comprised more than 64 percent of all reported accidents. The primary causes of the accident were driver inattention, following too closely, and improper passing. The majority of the accidents involved property damage to the vehicles (28 out of 52 accidents), a few minor personal injuries (22 out of 52 accidents) and no fatalities. Rear end accidents are generally associated with stop-and-go traffic, and are often common in areas like this which experience recurring congestion. The majority of the accidents occurred during the peak summertime.

Since the installation of the traffic signal on NYS Route 27 at Wainscott Northwest Road, observations revealed the signal interrupts the continuous stream of traffic on NYS Route 27, creating more gaps at adjacent unsignalized intersections and driveways which reduces accidents involving turning vehicles.

3.4.2 Potential Impacts

Trip Generation Analysis

The intended land use for the proposed development is commercial industrial. The 9th edition as well as the 10th edition of Trip Generation Manual, a report published by the Institute of Transportation Engineers (ITE), lists several land uses which are related to this intended use. The two of note are General Light Industrial (ITE Land Use 110) and Industrial Park (ITE Land Use 130). The characteristics of each land use are described below.

General Light Industrial (ITE Land Use 110):

- Employ fewer than 500 persons;
- Emphasis on activities other than manufacturing;
- Generally free-standing facilities;
- Generally devoted to a single use;
- Typically have minimal office space; and
- Typically include printing, material testing and assembly of data processing equipment.

Industrial Park (ITE Land Use 130):

- Contain a number of industrial or related facilities;
- Contain a mix of manufacturing, service, and warehouse facilities; and
- Include highly diversified uses and facilities;
- Contain approximately 13 percent truck trips as an average.

Based on the characteristics of both land uses, the Industrial Park use was determined to be the best representative of the Proposed Action.

Normally, the latest ITE publication would be used to determine the volume of site generated traffic expected for a land use. However, a comparison of the 9th Edition and 10th Edition indicated that the rates in the 10th Edition are substantially less than those in the 9th Edition without any explanation of reasons for this change. Thus, it was determined that use of the overall higher site generated traffic volumes from the 9th Edition data base would result in 1) the worst case traffic engineering examination in the preparation of the detailed intersection capacity analyses and 2) the identification and recommendation of more extensive mitigating roadway improvements (see TIS in **Appendix H** for the ITE Trip Generation Manual, 10th Edition trip generation rates).

The 9th Edition of the ITE Trip Generation Manual indicates the average rates and percentage of entering and exiting traffic for estimate the site generated traffic for Land Use Code 130 (Industrial Park), as indicated in **Table 3-11**. The expected trip generation for the weekday morning, weekday afternoon, and Saturday midday peak hours was calculated based on the proposed building size for each lot in the proposed development. As Southampton Brick and Tile and Suffolk Cement were in operation at the time the traffic volume counts were taken and will remain on Lots 21 and 22 as part of the Proposed Action, no trip generation was performed for these two lots since they are included in the existing traffic data. Therefore, traffic that is anticipated to be generated by the uses on these two lots is included in all stages of the analysis (Existing, No Build, and Build). It should be noted that there were other existing uses operating on the site at the time the traffic data was collected (i.e., Emergency Mechanical Services and Landscape Details). Landscape Details has relocated from the site to its newly built facility on Industrial Road. In order to present the most conservative trip generation forecast, no credit was taken for these existing uses which have not been allocated a specific lot in the proposed development.

TABLE 3-11
9TH EDITION OF ITE TRIP GENERATION MANUAL VOLUME DATA

Peak Hour	Average Rate	Directional Distribution	
		% Enter	% Exit
AM	0.82	82	18
PM	0.85	21	79
SAT Afternoon	0.35	32	68

Table 4 in the TIS estimates the site generated traffic for each lot (in terms of potential building coverage), as well as the total industrial park based on the rates and directional distribution

percentage using the data in the 9th edition of the ITE Trip Generation Manual. **Table 3-12** below provides the total generated traffic for the entire site based on the data in Table 4 of the TIS (see **Appendix H**).

TABLE 3-12
Total Site Generated Traffic

AM			PM			Saturday		
Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
252	48	300	54	249	303	49	98	147

The information provided in **Table 3-12** was used in the directional distribution analysis, the traffic assignment analysis and the capacity analyses, as further discussed below.

Other Planned Developments

The Town Planning and Building Departments were contacted to determine if there were any other developments in the vicinity of the site which may affect traffic volumes in the study area. They advised that no other developments are planned in the vicinity of the site.

Site Build-Out

It should be noted that the site-generated traffic volumes represent a conservative scenario with the entire site being fully-developed and occupied based on a reasonable full yield as evaluated throughout this DEIS. Due to the general nature of the Proposed Action, it is likely that full build-out of development would not occur for many years or decades. Furthermore, it assumes that the entire site is developed with uses that have a level of activity similar to the ITE Trip Generation Manual Commercial/Industrial Center land use. However, many possible uses, such as self-storage and other uses not involving direct sales or manufacturing, will likely result in much lower trip generation. Overall, the total trip generation is likely much higher than would ever occur on the site.

Directional Distribution Analysis

To determine the origins and destinations of vehicles entering and leaving the proposed development, a directional distribution analysis was performed. The first analysis was based on traffic data collected, which indicated that approximately 50 percent of the traffic passing the site on NYS Route 27 originated from the west in the morning and that 50 percent originated from the east. Afternoon data showed similar percentages of trips in the opposite directions, as commuters return to their origins in the evening. This distribution illustrates a balanced distribution of activity to the east and west of the site; however, it did not take into consideration destinations to the north of the site. As a result, a second directional distribution analysis was performed that was based on detailed data compiled by Suffolk Cement, which possessed records of the locations and work sites that their cement trucks traveled for deliveries. These destinations would also be the same for anticipated trips by future suppliers at the subject property that are expected as part of the Proposed Action. Thus, it appears reasonable to anticipate their deliveries to be similar or the same as the Suffolk Cement trucks.

The Suffolk Cement data indicated 40 percent of trips are to the west on NYS Route 27, 40 percent to the east on NYS Route 27, and 20 percent to the north of the site (see appendix entitled "Directional Distribution Data" in the TIS).

Based on the availability of vacant land, new homes and major renovations to existing homes on eastern Long Island, it is expected that similar buildings will continue to the east, west and north of the site. Given the proximity of the Village of Sag Harbor to the north of the proposed redevelopment, and based on the traffic flow patterns in the region, it was assumed that 20 percent of trips to and from the site would originate and return to the north. The most appropriate north-south roadway in the immediate vicinity of the site is Daniels Hole Road, which connects to Wainscott Northwest Road and ultimately to East Hampton-Sag Harbor Turnpike, a primary access roadway to Sag Harbor. See Figure 6 in TIS **(Appendix H)** for anticipated percentages for the four site access points and percentage of directional distribution key points on the external roadway network.

It should be noted that truck traffic destined to and from Sag Harbor will be directed to use the proposed site access driveway in the northwest corner of the site to avoid the low clearance of the LIRR bridge just northeast of the site; however, passenger cars will be able to access the site at the northeasterly site access driveway.

Site-generated traffic and the directional distribution were then utilized to assign traffic volumes to the roadway network via the proposed four access points for the site. Furthermore, site traffic coming from the east and west along NYS Route 27 and destined to the east and west were distributed via the three intersections on NYS Route 27 at 1) Wainscott Northwest Road, 2) Georgica Drive and 3) Old Montauk Highway. Figure 7 in the TIS **(Appendix H)** shows the site-generated traffic during the weekday morning peak hour (8:00 A.M. to 9:00 A.M.), the weekday afternoon peak hour (4:00 P.M. to 5:00 P.M.), and the Saturday peak hour (12:00 P.M to 1:00 P.M) at each access point.

<u>Intersection Capacity Analysis</u>

Unsignalized Intersections

Unsignalized intersection capacity analyses were performed to determine the ability of vehicles to safely negotiate turning movements at the following locations:

- Montauk Highway at Georgica Drive (Future SW Site Access Road Connection)
- Montauk Highway at Old Montauk Highway (Future SE Site Access Road Connection)
- Industrial Road at Daniels Hole Road
- Industrial Road at Wainscott Northwest Road
- Wainscott Northwest Road at Broad Wood Court/ Gate Drive (Future NW Site Access Road)
- Daniels Hole Road at Gate Drive (Future NE site Access Road)

As traffic counts were collected in August 2017, counts were projected to 2019 using a 2.5 percent annual growth factor to account for normal growth. The intersection capacity analyses

were then performed to examine the existing levels of service (LOS) present at each study intersection (2019 Existing Condition). Next, the 2019 existing volumes were projected to 2021 using a 2.5 percent annual growth factor to account for normal growth in traffic in the vicinity of the site (2021 No-Build Condition). Finally, the estimated traffic volume generated by the Proposed Action was added to the projected 2021 volumes to calculate the future conditions with the addition of site generated traffic (2021 Build Condition).[38] Figures 8-1, 8-2 and 8-3 in the TIS present the existing 2019 traffic volumes, the 2021 No Build and the 2021 Build traffic volumes, respectively (see TIS in **Appendix H**).[39] See the "Intersection Capacity Analyses Summaries" in **Appendix H** of this DEIS for results of the unsignalized capacity analyses.

The left-turns from NYS Route 27 onto the unsignalized side streets at Georgica Drive and Old Montauk Highway operate at LOS A and B and side street approaches operate at levels of service C and D under existing conditions at each location, respectively. Under 2021 No Build conditions, the NYS Route 27 left-turns remains at LOS A and B for these two intersections at all peak time periods. During the all peak periods, the side street approaches will continue to operate at LOS C at Georgica Drive and D at Old Montauk Highway. During the Saturday midday peak period, however, the intersection at Old Montauk Highway will fail under PM Build conditions.

Overall, it must be recognized that the unsignalized operations along NYS Route 27 are at or near failure under existing conditions, and will be further degraded under No Build conditions. The cause of this poor operation is the cumulative impact of the seasonal traffic on NYS Route 27, which must accommodate these high volumes with one travel lane in each direction.

The additional traffic generated by the Proposed Action has a marginal impact on operations at the unsignalized intersections in the vicinity of the site, as the site-generated traffic will be included in the thru traffic stream on NYS Route 27, and degradations in intersection operations are generally the result of increased turning movements, rather than slight increases in thru movements. Therefore, the primary traffic impact of the Proposed Action will be at the location which site generated traffic must access NYS Route 27. However, the traffic assignment plan proposed in the TIS results in the distribution of site generated traffic via three intersections, instead of one, to access NYS Route 27, which will significantly reduce traffic impacts. In order to accommodate the site traffic, a traffic signal may be required on NYS Route 27 at Old Montauk Highway/Proposed Site SE Access Road, as further discussed below.

Signalized Intersections

The intersection of NYS Route 27 at Wainscott Northwest Road is a signalized intersection west of the site. Signalized capacity analyses were performed for each peak time period (see "Intersection Capacity Analyses Summaries" in TIS in **Appendix H** of this DEIS).[40] In addition, the

[38] Note that this methodology is conservative, as the proposed redevelopment will likely occur in stages, and all 50 lots on the site are not expected to be developed and generating traffic for many years or decades.
[39] These analyses were performed in accordance with the methodology in the 2018 edition of the *Highway Capacity Manual.*
[40] In accordance with the methodology set forth in the 2018 edition of the Highway Capacity Manual.

installation of a traffic signal at the intersection of NYS Route 27 at a reconstructed Old Montauk Highway ("Reconstructed Old Montauk Highway") was considered in case the roundabout recommended in the Wainscott Hamlet report did not get approved and installed by NYSDOT. With the installation of a traffic signal, the intersection will operate at an acceptable LOS A during all peak periods. However, if the roundabout is implemented, this traffic signal will not be needed.

Capacity Analysis Summary

The current poor intersection operations along NYS Route 27 during the summer season will continue irrespective of the Proposed Action. The most significant degradation caused by site traffic would normally be at the closest intersection to the site on NYS Route 27. The installation of a traffic signal on NYS Route 27 at Reconstructed Old Montauk Highway/Proposed Site SE Access Road will mitigate traffic impacts at this location, as well as introduce gaps in the traffic stream for adjacent intersections. The overall site generated traffic can access NYS Route 27 via three intersections: 1) Reconstructed Old Montauk Highway/Proposed Site SE Access Road, 2) Georgica Drive and 3) Wainscott Northwest Road (currently signalized), which helps alleviate all site generated traffic from using only one roadway/intersection to access NYS Route 27. Thus, the site generated traffic heading to NYS Route 27 is distributed to these intersections and minimizes traffic impacts at this intersection.

Although the site will generate marginal amounts of additional thru traffic along NYS Route 27 at other intersections, the degradation in operations is negligible. It should be noted that the only possible means of mitigating the existing, no build, and build condition traffic problems on NYS Route 27 would require extensive roadway modifications by the NYSDOT, which would likely include the widening of NYS Route 27 to five lanes (two lanes in each direction with a center two-way left-turn lane). This was not considered as a possible modification in the TIS, as it is strongly opposed by the Town and the local community and would require the State to acquire portions of adjacent properties to accommodate the roadway widening. **Table 3-13** summarizes the LOS for both unsignalized and signalized intersections during peak hours for Existing (2019), No-Build (2021), and Build (2021) conditions (see **Appendix H** for additional capacity analyses results).

TABLE 3-13
SUMMARY OF OVERALL LOS

Movement	Existing 2019 AM, PM, SAT	No Build 2021 AM, PM, SAT	Build 2021 AM, PM, SAT
NYS Route 27 at Georgica Drive/SW Access Road			
RT 27 EB TO NB LEFT	N/A	A, N/A, N/A	B, A, B
SB GEORGICA DR.	N/A	C, N/A, N/A	C, C, C
Wainscott NW Rd at Broadwood Ct/NW Access Road			
SB TO EB LEFT INTO NW SITE DRIVEWAY	N/A	N/A	A, A, A
NB TO WB LEFT TURN	--	--	A, A, A
WB GATE DRIVE	N/A	N/A	B, B, A

Movement	Existing 2019 AM, PM, SAT	No Build 2021 AM, PM, SAT	Build 2021 AM, PM, SAT
EB BROADWOOD CT	--	--	A, B, A
Wainscott NW Rd at Industrial Rd			
WB TO SB LEFT	A, A, A	A, A, A	A, A, A
NB WAINSCOTT NW RD	A, A, A	A, A, A	A, A, A
Industrial Rd at Daniels Hole Rd			
NB TO WB LEFT ONTO INDUSTRIAL RD	A, A, A	A, A, A	A, A, A
EB INDUSTRIAL RD	B, B, B	B, B, B	B, B, B
Daniels Hole Rd at NE Access Road			
EB SITE ACCESS RD	N/A	N/A	A, A, A
NB TO WB LEFT ONTO NE SITE ACCESS RD	N/A	N/A	A, A, A
NYS Route 27 at Reconstructed Old Montauk Hwy/SE Access Road			
NYS RT 27 EB TO NB LEFT	A, A, B	B, A, B	B, B, B
SB RECONSTRUCTED OLD MONTAUK HWY	D, C, C	D, C, D	F, F, F
NYS Route 27 at Wainscott NW Rd (Existing Signal)			
OVERALL LOS	B, B, C	B, B, C	B, B, C
NYS Route 27 at Reconstructed Old Montauk Hwy/SE Access Road (Proposed Signal)			
OVERALL LOS	N/A	N/A	A, A, A

Access Examination

As described previously, the site has four access driveways (see Figure 9 of the TIS). The access drives in the northwest and northeast corners of the site allow traffic traveling to and from the north to enter the site at its north end, thereby reducing traffic through the intersections along NYS Route 27. The northeasterly driveway meets Daniels Hole Road just south of the existing LIRR trestle. It should be noted that this access driveway does provide a path for some northbound traffic to avoid NYS Route 27, but that truck traffic must still use the northwesterly access drive as a result of the limited vertical clearance of the LIRR trestle over Daniels Hole Road. The point at which this access drive meets Daniels Hole Road should be located as far to the south as possible on the site (located approximately at the back of the curve on Daniels Hole Road), thereby maximizing sight distance in both directions. It is expected that employees traveling to and from the north will use this access drive as there is sufficient vertical clearance.

The access drive located at the northwest corner of the site provides access to Wainscott Northwest Road at the existing T-intersection with Broad Wood Court. This driveway would allow truck traffic coming from and destined for areas north of the site to avoid the residential areas along the southern section of Wainscott Northwest Road. The restriction of WB to SB left turns out of this site driveway for trucks only will assure that trucks departing the site do not travel past the existing residents to the south along Wainscott Northwest Road. The LIRR tracks cross Wainscott Northwest Road at an at-grade crossing, which contains warning lights and gates, such that bridge clearance is not a concern as it is along Daniels Hole Road. Wainscott

Northwest Road can be used to proceed to or from Sag Harbor and points north of the site. The southwesterly access driveway connects to Georgica Drive which connects to NYS Route 27. The southeasterly access driveway connects to Old Montauk Highway which in turn connects to NYS Route 27. Each driveway will consist of a single entrance lane and a single exit lane; exit lanes at each driveway will be STOP controlled.

Proposed Action's Consistency with the Hamlet Report

The East Hampton Hamlet Report, Wainscott ("Hamlet Report") was reviewed with regard to traffic. The Hamlet Report focuses on one southerly access with site generated traffic gaining access to and from NYS Route 27, primarily via Georgica Drive and secondarily via Old Montauk Highway. With the inclusion of the proposed four site access driveways, the site generated traffic is divided among the four well separated access driveways. Instead of widening Bathgate Road to the west to Wainscott Northwest Road as recommended in the Hamlet Report, the proposed access plan provides a northwesterly access driveway that allows non-truck traffic to turn out of the site on to Wainscott Northwest Road and distributes the site generated traffic destined to access NYS Route 27 at the three intersections of 1) Old Montauk Highway, 2) Georgica Drive and 3) Wainscott Northwest Road to further reduce the traffic impact to NYS Route 27 and minimize traffic congestion.

The Hamlet report also presents several roadway improvement recommendations with regards to transportation. A consistency of the Proposed Action with these recommendations is as follows:

Roundabout on NYS Route 27 at Old Montauk Highway: Should the NYSDOT approve, obtain funding and initiate design and construction projects to implement this roundabout, the roundabout will be consistent with our access plan that will permit site generated traffic to arrive and depart the site via the intersection of NYS Route 27 at Old Montauk Highway. Vehicles entering the site will be able to easily travel through the roundabout from both the east and west. The roundabout will slow traffic down to a speed of 20 mph, which is generally used for traffic entering, traveling through and exiting a roundabout.

Signalization of NYS Route 27 at Old Montauk Highway: If the NYSDOT does not approve a roundabout at this time, the alternative of implementing a traffic signal should be considered as part of the Proposed Action. The southbound approach of the intersection should be modified to meet NYS Route 27 at a right angle with a separate SB right turn lane and a separate SB left turn lane. This traffic signal will create gaps in the EB & WB travel directions to make safer left and right turns along NYS Route 27.

Roundabout on NYS Route 27 at Wainscott Northwest Road: Should the NYSDOT approve, obtain funding, and initiate design and construction projects to implement this roundabout, the roundabout will be consistent with the access plan that will permit site generated traffic to arrive and depart via the intersection of NYS Route 27 at Wainscott Northwest Road. Site generated traffic will be able to travel through the roundabout both via the east and the west as well as the south approaches. Presently, the existing traffic signal will be able to accommodate site generated traffic without a major deterioration of the LOS; however, in the

event that the NYSDOT does not implement a roundabout at this location, the Town should restripe the southbound approach to provide a 10 foot wide SB to WB right turn lane, a 10 foot wide SB to EB left turn lane, and a 14 foot wide northbound travel lane within the 50 foot existing rights-of- way that accommodates a 34 foot wide roadway width.

NYS Route 27 at Georgica Drive: Presently, the intersection of NYS Route 27 at Georgica Drive is unsignalized. If the SB intersection approach was restriped to provide a separate 10 foot wide SB right turn lane and a separate 10 foot wide left turn lane, this intersection could serve as the third intersection on NYS Route 27 that could accommodate both left and right turns in and out from and to WB and EB NYS Route 27, which could also be used to travel to and from the site.

Bathgate Road Extension: The widening of Bathgate Road by the Town could create a roadway connection between Wainscott Northwest Road and the proposed SE and SW access roads via Georgica Drive which will be extended through the southerly portion of the site. This widening by the Town would provide a safer E-W Bathgate Road that could help to distribute site generated traffic to three aforementioned intersections with NYS Route 27. However, the site access plan accomplishes this objective whereby the site's two southerly access points distribute site generated traffic to NYS Route 27 via Georgica Drive and Old Montauk Highway. Furthermore, the northwesterly site access driveway allows non-truck traffic to make a left turn out of the site on to Wainscott Northwest Road to connect to NYS Route 27. Thus, the site access plan does not require the extension of Bathgate Road; however, it still should be considered by the Town whether or not this site is developed as proposed.

The Hamlet Report noted the addition of a train station on the south or north side of the LIRR tracks would provide easy access to and from New York City. This would provide an additional mode of transportation for employees working at the Wainscott Commercial/Industrial Center and would reduce the number of automobile trips to and from the site.

Traffic Impact Mitigation

There are three key components of the site development that minimize the amount of external roadway modifications. These components are:

- Creation of an internal roadway network that services the proposed subdivision and distributes site generated traffic to four well designed and appropriately located access points rather than forcing traffic onto only one of the adjacent external roadways. This design minimizes traffic congestion and traffic delays on the external roadways;
- Creation of four access roads that distribute site generated traffic over the internal roadways to the four well separated access points onto the external roadways to minimize congestion and traffic impacts compared to one single access point at the southerly end of the site. Each access driveway will consist of one entry lane and one exit lane; and
- Provision of roadway modifications that mitigate the overall traffic impact of the Proposed Action on the surrounding street and highway network.

Proposed roadway improvements include:

- The western end of Old Montauk Highway should be realigned to meet the proposed Site SE Access Road at a right angle which in turn will meet NYS Route 27 at a right angle.
- The intersection of Old Montauk Highway and NYS Route 27 should be signalized. The signal should be three-phase, full-actuated, with protected-permitted eastbound left-turns. Should the NYSDOT implements a roundabout at this intersection, the traffic signal installation will not be necessary.
- Old Montauk Highway should be constructed with a separate SB to WB right-turn lane, a separate SB to EB left-turn lane, and one receiving lane.
- The eastbound approach of NYS Route 27 at Old Montauk Highway should be restriped to designate the existing two-way left-turn lane as an exclusive eastbound left-turn lane on to Old Montauk Highway.
- The westbound approach of NYS Route 27 at Old Montauk Highway should be widened on the north side to provide a separate westbound to northbound right-turn lane. This lane should be full width for sufficient length to allow westbound vehicles on NYS Route 27 to safely decelerate and turn without impeding thru vehicle movements.
- STOP signs and STOP bars should be installed at locations shown in Figure 11 of the TIS.
- Georgica Drive should be reconstructed and restriped to provide one travel lane in each direction, and to sufficiently separate roadway traffic from the parking and loading areas for adjacent building.

Since the existing capacity provided at the intersections of Wainscott Northwest Road at Industrial Road and Daniels Hole Road at Industrial Road is more than sufficient to accommodate minor traffic increases expected in the area north of the site, no roadway modifications are recommended for these locations.

<u>Additional Considerations</u>

Public Transportation

Suffolk County Transit provides bus service to most of Suffolk County. The nearest bus route to the site provided by Suffolk County Transit is the S-92 connector bus line, which travel east and west in front of the site along NYS Route 27. Additionally, the 10B travels on NYS Route 27 between East Hampton and the Bridgehampton Commons shopping center. Due to the proximity of the two bus routes to the subject property, it is expected that some employees and patrons may utilize the public transportation system, which would further reduce the minimal traffic impact and the parking need. However, no credit was applied in the TIS for public transportation, and the traffic destined to and from the expanded site was based on passenger cars only.

The Towns of Southampton and East Hampton indicate that congestion on the roadways is increasing throughout the year due to increased commuter traffic during the weekday peak hours. East End officials have indicated that the “South Fork Commuter Connection” that

extends between Speonk and Montauk has been successful and the LIRR's numbers of ticket sales support this statement. The Commuter Connection is deemed an alternative to driving on traffic clogged east/west highways for East End employees. The use of the Commuter Connection by employees of the Wainscott Commercial Center would further reduce potential traffic impacts and parking needs (see **Appendix H** for additional information).

In addition, the location of the airport north of the site presents another mode of transportation that could be utilized by business professionals destined to and from the subject property for business and management meetings.

Traffic Signal Warrant Analysis

Initially, the unsignalized intersection of NYS Route 27 at Old Montauk Highway was analyzed as an unsignalized intersection; however, it was determined that the installation of a traffic signal would provide operational benefits to accommodate the site generated traffic flow which in turn would enhance movements out of the adjacent side streets onto NYS Route 27. The addition of the traffic signal in concert with the existing traffic signal at Wainscott Northwest Road would allow the two signals to be synchronized to enhance traffic flow along this section of NYS Route 27. Thus, a separate "Traffic Signal Warrant Investigation Report" was prepared for NYS Route 27 at the reconstructed Old Montauk Highway (proposed SE site access road) that satisfies the warrants when the entire site is fully opened (see Figure 11 in TIS).

Examination of Alternatives to Traffic Signal Installation

The TIS determined that installation of a traffic signal will be required at full buildout at the intersection of NYS Route 27 and Old Montauk Highway to accommodate southbound and eastbound turns leaving the site and proceeding east on NYS Route 27 for the weekday morning peak hours, weekday afternoon peak hours and Saturday afternoon peak hours, particularly during the summer when eastbound and westbound traffic volumes are significantly higher compare to the alternative times throughout the year. Currently, a traffic signal at the intersection is not necessary. As full buildout of the subject property will not occur for many years, if not decades, it will be several years before installation of a traffic signal will be necessary. Since the traffic signal is not necessary at this time, the TIS examined practical planning and professional traffic engineering approaches that develop a comprehensive plan that negates the need for an additional traffic signal for both now and in the future and makes the current traffic situation better.

As previously discussed, unsignalized capacity analyses were performed for the intersection of NYS Route 27 at Old Montauk Highway based on the proposed access plan, the site generated traffic, the directional distribution and the resulting traffic assignment. The resulting levels of service for the Build Condition (2021) were F, F, and F, respectively for the morning peak hours, afternoon peak hours, and Saturday afternoon peak hours. These analyses were based on summer traffic volume data to present a worst-case traffic scenario to determine roadway improvements necessary to accommodate the site generated traffic and higher summer traffic volumes. Thus, the unsignalized intersection was analyzed again with the possible installation of a traffic signal.

The resulting levels of service for this signalized intersection for the Build Condition (2021) were A, A, and A, respectively for the morning peak hours, afternoon peak hours, and Saturday afternoon peak hours. Excellent levels of service will occur with the installation of a traffic signal at NYS Route 27 at the reconstructed Old Montauk Highway. The primary need for a traffic signal at this location to accommodate southbound to eastbound left turns leaving the site that desire and proceeding east on NYS Route 27, particularly during the summer. When traffic volumes are high in both directions on NYS Route 27, there are fewer simultaneous gaps in traffic flow which are necessary to make a left turn out of a side street. In other words, the traffic signal is needed during the high summer traffic volumes, while throughout the rest of the year, the southbound to eastbound left turns leaving the reconstructed Old Montauk Highway and heading east on NYS Route 27 to East Hampton and points east may be more readily able to make this movement safely due to 1) the lower traffic volumes on eastbound and westbound NYS Route 27 and 2) gaps in the traffic flow that are created on NYS Route 27 by the presence of the existing traffic signal located west of the site on NYS Route 27 at Wainscott Northwest Road.

The following paragraphs present an alternative plan that could be implemented without requiring the need for a traffic signal at the intersection of NYS Route 27 and the reconstructed Old Montauk Highway. This alternative plan aims to a) be consistent with the concerns and goals of the Town of East Hampton and the surrounding community to avoid the installation of a traffic signal which is often thought of as being a sign of an urbanized area, and b) assign or divert site traffic traveling eastbound on NYS Route 27 and making a southbound to eastbound left turn under the safety of the operation of the existing traffic signal located on NYS Route 27 at Wainscott Northwest Road. Thus, this alternative plan consists of the following actions that could be accomplished via coordination between the NYSDOT, the Town of East Hampton and the Applicant:

- The Applicant should install guide signage within the subject property to direct traffic, to utilize specific site access points, and to depart from the site and to head to the north, south, east and west via the best route/intersection to safely accommodate each movement.
- The Town should make practical traffic engineering improvements along Bathgate Road that connects to Wainscott Northwest Road and leads to the traffic signal at NYS Route 27 in order for traffic exiting the site to make a southbound to eastbound left turn onto NYS Route 27 safely via the operation of the existing traffic signal.
- The NYSDOT and the Town should widen the southbound approach on Wainscott Northwest Road at the intersection with NYS Route 27 within the existing rights-of-way.
- The Town and the NYSDOT should initiate a project to study/plan, design and construct a roundabout on NYS Route 27 at Old Montauk Highway.

Each of these actions are discussed in greater detail below:

<u>Motorists Simple Courtesy:</u> A courteous situation that may occasionally occur during heavy traffic flows in both directions on the main road during the summer is when an eastbound

motorist in slow or stop and go traffic sees a gap in the westbound traffic flow and motions to the motorist who is waiting to make the left turn out of a side street to proceed with the left turn and get in front of them on the eastbound travel lane. This situation requires no action on the part of the Town, State or Applicant. It is mentioned here simply because it occurs at times and would allow a few southbound to eastbound left turns out of the reconstructed Old Montauk Highway.

Internal Guide Signage: In order to reduce traffic impacts, four access driveways and an internal roadway network will be constructed. The access plan and the internal roadway network help to distribute traffic flow over several points and reduce overall congestion. As shown in Figure 14 of the TIS, an internal signage plan has been designed to guide departing site traffic to each driveway that best accommodates the needs of motorists to reach destinations to the east, west, south and north. The signage plan was also designed to prevent truck traffic from using the two southerly access points to travel north along Wainscott Northwest Road and to prohibit left turns for trucks out of the northwest access drive to prevent them from traveling to the south along Wainscott Northwest Road, adjacent to the residential neighborhoods. Furthermore, the key concept that was incorporated into the internal signage plan is to guide, divert and direct departing traffic to the traffic signal located on NYS Route 27 at Wainscott Northwest Road where southbound to eastbound left turns could be accommodated safely under the operation of the existing traffic signal, which in turn could negate the need of a traffic signal on NYS Route 27 at the reconstructed Old Montauk Highway. Route marker assemblies are used to direct departing motorists to the eastbound and westbound directions of NYS Route 27.

Bathgate Road Improvements: It is recommended that the operation of Bathgate Road between Georgica Drive and Wainscott Northwest Road be converted to one-way westbound with a parking lane and a sidewalk created on the south side of Bathgate Road for patrons to park and access businesses located to the south. Landscaping could also be added along the north side of Bathgate Road, which could serve as an aesthetic buffer to the residences north of Bathgate Road. The existing roadway could be repaved and restriped with one-way westbound signs. These improvements would be beneficial to the businesses for both deliveries and for their customers. The existing southbound to westbound no right turn sign should be removed on southbound Georgica Drive, just north of Bathgate Road. This plan would also serve to guide motorists departing the site to Wainscott Northwest Road and the existing traffic signal at NYS NYS Route 27 where southbound to eastbound left turns could be accommodated under the safe operation of the traffic signal; this action will help to negate the need for a traffic signal installation on NYS Route 27 at the Reconstructed Old Montauk Highway. Figure 15 in the TIS shows a plan view of the proposed lane layout of this one way westbound 16 foot wide travel lane with a 13 foot wide parking lane and a nine foot wide sidewalk area on the south side of Bathgate Road, as well as a 5 foot wide shoulder and 7 foot wide landscaped area on the north side, all within the 34 foot wide pavement and the 50 foot wide right-of-way.

Widening of Southbound Approach on Wainscott Northwest Road: The existing signalized intersection of NYS Route 27 at Wainscott Northwest Road has the following lane layouts:

Intersection	Lane Configuration
Eastbound NYS Route 27 Approach	A separate left tune lane and a combined thru/right turn lane
Westbound NYS Route 27 Approach	A separate left tune lane and a combined thru/right turn lane
Northbound Wainscott NW Road Approach	A separate left tune lane and a combined thru/right turn lane
Southbound Wainscott NW Road Approach	A combined left turn/thru/right turn lane

The efficiency traffic signal operation should be enhanced by widening the roadway and creating additional turning lanes on the southbound intersection approach on Wainscott Northwest Road. The additional turning lanes will require less green time to be assigned to the side street and permit this reduced time to be added back onto NYS Route 27 that will enhance traffic flow on NYS Route 27 (see lane configuration in Figure 16 of the TIS). Widening the southbound approach on Wainscott Northwest Road will accommodate traffic departing the site that is diverted to Wainscott Northwest Road, will create safe operations of the southbound to eastbound left turns at the existing traffic signal, and will negate the need to install a traffic signal on NYS Route 27 at the Reconstructed Old Montauk Highway. Furthermore, the provision of the additional lanes on the southbound approach of Wainscott Northwest Road will help to accommodate the additional truck traffic coming from the Town Industrial Park that continues to develop along Industrial Road. It should also be noted that the property located in the northwest corner of NYS Route 27 at Wainscott Northwest Road is currently for sale. Presently, this property is occupied by Wainscott Windows and Walls. The Town should consider the possibility of purchasing this property while it is available to create a three lane soutbound approach layout or for future replacement of the traffic signal with a roundabout, as proposed in the Hamlet Study Report. With the prohibition of southbound to eastbound left turns out of Old Montauk Highway onto eastbound NYS Route 27, Figure 17 of the TIS presents the single lane layout on the southbound approach at NYS Route 27, which revises the previously proposed southbound lane layout shown in Figure 11 of the TIS.

<u>Study and Preliminary Design of Roundabouts:</u> The Wainscott Hamlet Report recommended that two roundabouts be constructed on NYS Route 27 at 1) Old Montauk Highway and 2) Wainscott Northwest Road. The Town and the NYSDOT should initiate a project to study, design and construct a roundabout at these two intersections. A roundabout at the Reconstructed intersection of Old Montauk Highway would allow traffic to proceed around the roundabout and would negate the need to install a traffic signal at this location. A roundabout at the intersection of NYS Route 27 at Wainscott Northwest Road would negate the need for a) improvements on the southbound approach and b) the existing traffic signal, which would be removed.

It should be noted that in the event that either Alternative 3, the Open Space Alternative, or Alternative 4, the Hamlet Plan Alternative is ultimately approved, the same process as

described above for the preferred plan can be utilized to negate the need for a traffic signal installation on NYS Route 27 at Old Montauk Highway.

Conclusions

The proposed redevelopment of the site will result in an increase in traffic flow, particularly along Montauk Highway. However, proposed roadway modifications (as further discussed in **Section 3.4.3** below) can adequately accommodate this increased traffic. Furthermore, the proposed site access plan and the proposed internal roadway will reduce potential adverse impacts on traffic conditions on the surrounding roadway network. The following is a summary of the findings presented in the TIS:

1. As a result, the proposed site redevelopment, in conjunction with the roadway modifications recommended, will provide safe traffic operation for the patrons and employees of future uses at the subject property.
2. The site access plan has been designed to adequately provide for the estimated traffic flow on the adjacent roadways to assure public safety and minimize traffic congestion.
3. With the design of the access plan, the internal roadway network and the implementation of the roadway modifications (see **Section 3.4.3)**, it is anticipated that the Proposed Action will not increase the rate of crashes in the vicinity of the site.
4. Four points of access to the proposed development will be provided. Each driveway will be stop controlled with one entry lane and one exit lane. The two southerly access points will allow vehicles to gain access to and from NYS Route 27 from the three intersections of NYS Route 27 at 1) Old Montauk Highway, 2) Georgica Drive and 3) Wainscott Northwest Road. The northeasterly access point will be at the northeast corner of the site on Daniels Hole Road and will provide two lanes (one lane each for entering and exiting traffic, with both left and right turns into and out of the site). Trucks will be prohibited from making left-turns at this access drive due to the low railroad overpass to the north (9 ft. vertical clearance). The northwesterly access point onto Wainscott Northwest Road will be located opposite Broad Wood Court and north of existing residences. The driveway will consist of one entry lane and one exit lane and trucks will be prohibited to make left turns out of same.
5. NYS Route 27 in the vicinity of the site is relatively flat and does not contain appreciable horizontal curves. Thus, no sight distance restrictions occur at the proposed main access points at Wainscott Northwest Road, Georgica Drive, or Old Montauk Highway.
6. Daniels Hole Road in the vicinity of the proposed northeasterly access drive, has a low railroad trestle which limits sight distance to the north and a sharp horizontal curve which limits sight distance to the south. However, due to the location of the proposed access drive onto Daniels Hole Road on the back of the curve, sight distance will be maximized and will not pose a significant safety concern.
7. The site generated traffic volumes in the TIS represent a conservative scenario of the entire site being fully developed and occupied. Due to the nature of the Proposed Action, it is likely that full build-out of the subject property would not occur for many

years, if not decades. It assumes that the entire site is developed with uses that have a level of activity similar to the ITE Industrial Park land use. However, many future uses, such as self-storage and other uses not involving direct sales or manufacturing, will likely result in much lower trip generation. Overall, the total trip generation presented in the TIS is likely much higher than would ever occur on the site.

8. The nearest bus route to the proposed site provided by Suffolk County Transit is the S-92 and the 10B which travel on NYS Route 27 adjacent to the site. Due to the proximity of the two bus routes, it is expected that some of the employees and patrons may utilize the public transportation system, which would further reduce the minimal traffic impact and the parking needs. However, no credit was applied in the TIS for use of public transportation, and the traffic destined to and from the site was based on the use of passenger cars only. The close proximity of the airport north of the site presents another mode of transportation that could be used by business professionals destined to and from the commercial center site for business and management meetings.
9. The Towns of Southampton and East Hampton say that congestion on the roadways is increasing throughout the year due to increased volumes of commuter traffic during the weekday peak hours. East End officials have indicated that the "South Fork Commuter Connection" that extends between Speonk and Montauk is successful. The Commuter Connection has been deemed an alternative to driving on traffic clogged east/west highways for East End employees. The use of the Commuter Connection by employees of the Wainscott Commercial Center would further reduce the minimal traffic impact and parking needs.

3.4.3 Proposed Mitigation

The TIS indicates that the Proposed Action, will not have an adverse impact on traffic conditions on the surrounding roadway network in the vicinity of the site as a result of the site access plan, internal roadway network and the following recommended roadway modifications:

- The western end of Old Montauk Highway should be realigned to meet the proposed Site SE Access Road at a right angle which in turn will meet NYS Route 27 at a right angle.
- The intersection of Old Montauk Highway and NYS Route 27 should be signalized as the site approaches full buildout. The signal should be three-phase, full-actuated, with protected-permitted eastbound left-turns. Should the NYSDOT implement a roundabout at this intersection or if the alternative plan presented in the TIS is implemented, a traffic signal installation will not be necessary.
- Old Montauk Highway should be constructed with a separate SB to WB right-turn lane, a separate SB to EB left-turn lane, and one receiving lane.
- The eastbound approach of NYS Route 27 at Old Montauk Highway should be restriped to designate the existing two-way left-turn lane as an exclusive eastbound left-turn lane on to Old Montauk Highway.
- The westbound approach of NYS Route 27 at Old Montauk Highway should be widened

on the north side to provide a separate westbound to northbound right-turn lane. This lane should be full width for sufficient length to allow westbound vehicles on NYS Route 27 to safely decelerate and turn without impeding thru vehicle movements.

- STOP signs and STOP bars should be installed at locations shown in Figure 11 of the TIS.
- Georgica Drive should be reconstructed and restriped to provide one travel lane in each direction, and to sufficiently separate roadway traffic from the parking and loading areas for adjacent building.
- The alternative plan presented in the TIS should be implemented. This plan proposes the following five actions that are discussed in greater detail above:
    - Motorists simple courtesy
    - Internal guide signage
    - Bathgate Road improvements
    - Widening of the southbound approach on Wainscott Northwest Road
    - Study and preliminary design of roundabouts

The proposed redevelopment of the site will result in an increase in traffic flow, particularly along NYS Route 27. However, the aforementioned roadway modifications can adequately accommodate this increased traffic. As a result, the Proposed Action, will provide safe traffic operation for the patrons and employees of the development and will not result in any adverse traffic impacts in the study area.

4.0 OTHER ENVIRONMENTAL IMPACTS

4.1 Unavoidable Adverse Environmental Impacts

The current action involves the subdivision of a 70.51± acre CI zoned property into 50 commercial/industrial lots for current and future uses that will conform with the existing zoning of the site. The proposed subdivision would establish lots ranging in size from 40,000 SF to 260,732 SF in size. This subdivision does not by itself result in immediate and direct physical impacts to the environment; however, it does allow for future uses to be developed over a number of years, if not decades, on each of the proposed lots, in conformance with existing zoning. Since the proposed project is to create a commercial-industrial subdivision, it is not possible to identify the exact uses that may occupy the lots within the subdivision (aside from Lots 21 and 22). Site uses will be established under future site plan review for businesses that conform with the CI zoning of the site, and will be based on market demand. For the purpose of this DEIS, typical plot plans, preliminary site plans and a reasonable full yield of the property have been prepared so that a meaningful assessment of the Proposed Action can be performed pursuant to the provisions of SEQRA. The potential environmental impacts associated with the Proposed Action and proposed mitigation measures to minimize such impacts are provided in **Section 2.0** and **Section 3.0** of this DEIS. Some impacts from the subject action and its future implementation; however, are unavoidable, and these impacts must be identified as required by SEQRA.

Based on the Conceptual Site Plans, typical plot plans and a reasonable full yield of the site, unavoidable adverse environmental impacts may occur as a result of the subdivision and future site development in conformance with existing zoning. Such impacts are considered as those that cannot be fully avoided or mitigated by applying reasonable mitigation methods and techniques. Examples of such unavoidable adverse environmental impacts are: clearing and ground disturbance, building construction, street and parking lot construction, additional demand for community services, resources and essential utilities and the effects of future on-site activities that will result once the existing vacant portion of the site is developed, occupied and fully functioning. Identified unavoidable impacts that will or may still occur despite proposed impact prevention and mitigation methods, are as follows:

- Clearing, ground disturbance and grading on an estimated 62.91 acres (the site is a sand mine with some successional old field), 12.11 acres of which will be revegetated/landscaped after construction.
- Loss of limited wildlife habitat and loss and/or displacement of some wildlife (the site is a sand mine with limited perimeter vegetation that will mostly be retained).
- Potential dust generation during construction. Minor dust conditions would be temporary and controlled to the extent practicable by implementing proper construction management techniques including variously described dust and soil erosion and sedimentation techniques (dampening loose exposed soil, preparation of soil and erosion plans, silt

fencing, use of a water truck during excessively dry and/or windy periods, etc.) and Building Department oversight during the construction process.

- Temporary increases in truck traffic and other construction related activities including noise generation during the construction period. Construction activities will be conducted in conformance with Town requirements including restricting construction activities in accordance with permissible construction timetables outlined under Chapter 185 of the East Hampton Town Code ("Noise") and other noise management and site-specific measures at the discretion of the Building Department.
- The Proposed Action will result in an increase in traffic flow, particularly along NYS Route 27. During the Saturday midday peak period, the intersection at NYS Route 27 and Old Montauk Highway will fail under 2021 PM Build conditions. However, it must be recognized that the unsignalized operations along NYS Route 27 are at or near failure under existing conditions, and will be further degraded even under No Build conditions. The cause of this poor operation is the cumulative impact of the seasonal traffic on NYS Route 27, which must accommodate these high volumes with one travel lane in each direction. Under the Proposed Action, an increase in vehicle trips generated include 300 trips during the weekday A.M. peak hour, 303 trips during the weekday P.M. peak hour and 147 during the Saturday mid-day peak hour.
- There will be increases in potable domestic water demand (16,016± gpd); this does not account for potential landscaped irrigation at each lot. However, irrigation will be minimized by utilization of rain gardens and low mow fescue with no fertilizer dependent vegetation. It should be noted that the potable water demand cannot be definitively determined at this time as the specific uses will only be known as individual site development occurs; however, the reasonable full yield of the property used for DEIS analysis does establish an estimated water use number as noted above. Upon subdivision approval, the Applicant will stabilize the site with installation of low mow grass as part of the installation of the road system, until the development of individual lots occurs through site plan review. Additional conservation techniques are proposed to reduce both domestic and irrigation water, including retaining limited natural areas as much as possible and reducing the total area that might otherwise have been planted with turf, and incorporating native, well-adapted vegetation as part of the landscaping plan. All future uses will connect to the public water supply.
- There will be an increase in wastewater generation (16,016± gpd) that must be treated and ultimately recharged back into the ground. However, sewage generated at the site will be conveyed to I/A OWTS sanitary installations per Article 19 of the Suffolk County Sanitary Code, and in conformance with the Town Code's Low Nitrogen Sanitary System requirements. It should be noted that the exact sanitary waste generation cannot be determined at this time as the specific uses will only be known as individual site development occurs. Currently, approved systems are designed to reduce total nitrogen in treated effluent to a maximum of 19 mg/l which is the SCDHS standard for approval of these systems. The use of I/A OWTS/Low Nitrogen Sanitary System technologies at the

subject property will reduce total nitrogen in treated effluent to less than 19 mg/l and possibly lower as many existing approved systems are resulting in total nitrogen in effluent of well under the standard. In addition, since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced.

- There will be an increase in stormwater generation due to a considerable increase in impervious surfaces on the site (buildings, parking lots, internal streets and driveways); however, the applicant will design an on-site drainage collection using a system of storm drains throughout the proposed roadways to capture the runoff from a five-inch rainstorm as required by the Town Code and the Town Stormwater Management Officer. Installation of storm drains and grading activities will control and direct stormwater to on-site drainage systems to minimize potential impacts associated with runoff. In addition, rain gardens for stormwater treatment will be installed at the rear of each individual site to serve as an additional stormwater treatment method.
- There will be an increase in refuse generation as a result of future development at the subject property. As the exact nature of development at each lot is presently unknown (aside from Lots 21 and 22) and will be based on market demand, the amount of solid waste expected to be generated cannot be estimated at this time. However, due the expected nature of future uses (i.e., small service commercial, wholesale and warehouse businesses) it is not expected that the solid waste stream will contain significant amounts of potentially toxic or hazardous materials, other than empty business cleaning fluid containers. Solid waste generated by future development will be kept in dumpsters and removed by a private licensed waste hauler, similar to existing operations for the current uses at the subject property.
- There will be increased demand for nonrenewable energy services (electricity and natural gas); however, the subject property and surrounding area are served by existing electric and gas utilities and service providers are expected to provide service through their rate/tariff structures as is routinely the case. In addition, the project will comply with State building and energy codes to reduce overall energy demand, and energy efficient fixtures and mechanical systems will be installed at each future use, to the extent feasible.

The above list identifies unavoidable adverse environmental, many of which are minimized by the measures identified above and in **Section 2.0** and **Section 3.0**.

4.2 Irreversible and Irretrievable Commitment of Resources

This subsection is intended to identify those natural and human resources discussed in **Sections 2.0** and **3.0** that will be consumed, converted or otherwise made unavailable for future use as a result of the Proposed Action. Irretrievable and irreversible commitments of resources involve primarily the commitment of natural resources on-site, many building materials used in construction, and necessary consumption of nonrenewable energy.

The Proposed Action will result in the following irreversible and irretrievable commitment of resources:

- Successional old field estimated to comprise 37.19± acres will be changed due to clearing that is necessary to development the site. However, a total estimated 7.6-acres of the pitch-pine oak forest will remain and approximately 12.11 acres will be revegetated/landscaped, which will provide habitat for some wildlife.
- Material used for construction of the **Conceptual Site Plan**, including but not limited to: wood, asphalt, concrete, fiberglass, steel, aluminum, etc.
- Energy used in the construction, operation and maintenance of future development, including fossil fuels (i.e., oil and gasoline associated with site preparation and construction, electricity and natural gas).

4.3 Growth-Inducing, Secondary and Cumulative Impacts

Growth-inducing effects cause or promote additional development, either directly from new development itself (i.e., "primary" effect) or indirectly as a result of increases in local population, market demands, new or renewed interest in an area due to growth or perceived potential for growth in that community (i.e., "secondary" effect). A primary impact may include, for example, the installation or extension of sewer infrastructure to serve a new development which increases the potential for future development, possibly at greater development density, or an increased residential population that creates a need or opportunity for additional businesses to provide necessary goods and/or services. A secondary or "indirect" impact is one which is reasonably foreseeable, occurs at a later time or at a greater distance from the site, and is in part the result of the Proposed Action. Secondary impacts can include a wide variety of effects and may include growth inducing impacts. For example, the construction and operation of an office building may result in increased off-site demand or opportunities for office support services such as printing and copying and related business such as sales of paper supplies and other office products.

By design, the Proposed Action (i.e., subdivision of the subject property and eventual redevelopment pursuant to the **Preliminary Site Plan**) is intended to redevelop an underutilized and predominantly vacant property to provide opportunities to locate current and future small service and support companies to serve business needs within the Town. Subdivision of the subject property into 50 CI lots would accommodate some of the current and future economic needs of the Town by creating small undeveloped CI zoned parcels for existing and additional service commercial, wholesale and warehouse businesses. It is anticipated that the majority of future development will consist of small service commercial, wholesale and warehouse business (e.g., lumber and building products, storage yards and building supplies distributions), which are permitted uses in the CI zone.

There will not be an introduction of a permanent population at the subject property as a result of the Proposed Action, as future uses will be commercial or industrial consistent with zoning. It is possible that future commercial service, wholesale and warehouse businesses at the subject property, depending on future market conditions, may create opportunities for the establishment of additional support services and essential goods in the area, such as home construction companies, real estate businesses, site maintenance and other types of

businesses. New businesses at the subject property are expected to expand construction and second home ownership, as well as tourism. However, this would occur over a number of years, if not decades and will be largely based on market conditions, which cannot be anticipated at this time.

Future uses at the subject property and any new support services in the area could potentially attract future employees to the area. However, Suffolk Cement and Southampton Masonry will remain at the subject property, and it is anticipated that some existing commercial service, wholesale and warehouse businesses in the area (or on Long Island in general) would relocate to the site. Employment opportunities are a benefit of the project.

Based on the foregoing, significant business growth is not expected to occur at the site or in the surrounding area as a result of the Proposed Action. This is supported by the market-driven nature of site occupancy, which will meet the incremental demand for commercial-industrial use sites over time. As noted, additional business growth at the subject property is expected to occur over a number of years, if not decades, in response to market demand for additional service commercial, wholesale and warehouse businesses, as well as local economic conditions.

The site-specific development that would result from the Proposed Action would have secondary effects. The intent of the Proposed Action is to create 50 CI zoned parcels for additional service commercial, wholesale and warehouse businesses that will provide vital services and support to the Town's dominant and expanding construction, tourism, and second homeowner's driven economy. The subject property is an appropriate location for such businesses and such uses would be consistent with the general conceptual framework of the East Hampton Hamlet Report for Wainscott. The proposed subdivision takes into consideration suitable access, circulation, land use compatibility, job creation, fiscal well-being and economic growth. It is anticipated that the Proposed Action will contribute to an increase in activity from the new customer base arising from development. New employment opportunities will be created as a result of proposed construction which will include building trade jobs for road, drainage, sanitary, utilities, building construction and landscape installations. These new jobs would likely support the local labor pool and not require large-scale relocation of specialized labor forces or an influx of large businesses from outside the area to provide construction-related support. As a result, construction job related effects of the Proposed Action are expected to be beneficial, though temporary in duration. Permanent jobs will also be created as a result of businesses occupying the site, and economic ripple effect will result in additional induced and indirect jobs. In addition, future uses at the subject property will provide tax revenues that will support local taxing districts and area services and infrastructure.

Development associated with the Proposed Action and future development at each lot will place greater demands on utilities as would any future growth in the area to the extent that development occurs over time. Electric and natural gas services are generally available throughout area and demand is met as needed. Significant expansions of these utilities beyond what is planned for project related to the Proposed Action are not expected, though lesser improvements such as individual service connections on a lot-by-lot basis in the future are expected.

Additional water demand is required to serve future development or alternatively any other development that would be proposed at the existing six large ranging in size from 4.06± acres to 37.95± acres. Additional sewage generation that must be treated will be discharged on-site will also result. However, Low-Nitrogen Sanitary Systems (I/A OWTS) will be installed on individual commercial sites on a lot-by-lot basis to significantly reduce nitrogen in effluent. Any future uses at the subject property would be subject to Site Plan/Special Permit, environmental, community service provider, and other reviews to ensure that significant impacts do not occur.

It is expected that the Proposed Action will create demand for, and lead to the extension of community facilities and expansion of services in the surrounding area. The cost to meet this increased demand will be offset by increased property tax revenues and user fees that would be generated from site-specific developments on what is now a large predominantly vacant site and the developer's installation of on-site facilities and connections.

In balancing the assessment of growth and its impacts, the "triple bottom line" of responsible growth through social, economic and environmental factors is critical. The factors noted above suggest that impacts from the proposed development can be accommodated and managed in accordance with applicable standards, without resulting in significant impacts from any incremental growth to occur over several years and possibly decades.

4.4 Energy Use, Conservation, and Climate Change

4.4.1 Energy Use and Conservation

Although the exact nature of development at each lot is presently unknown, energy multipliers of future commercial service, wholesale and warehouse businesses are presented below to indicate potential energy uses and supplies as a result of the Proposed Action. However, exact square footages and total energy demand cannot be definitively determined at this time due to the expected incremental development of site plans within the CI subdivision over time. According to the City of New York's CEQR Technical Manual ("City Environmental Quality Review"), the "Industrial" multiplier is 554.3 thousand British Thermal Units (Btu) per SF per year.[41] The CEQR Technical Manual is often used as a reference in similar SEQRA energy reviews, but states that "[i]n most cases, a project does not need a detailed energy assessment, but its operational energy consumption is often calculated."

According to the 2001 Building Energy Data Book,[42] "Warehouse and Storage" buildings generate 94.3 thousand Btu per SF per year, "Office" buildings generate 211.7 thousand Btu per SF per year, "Service" buildings generate 151.6 thousand Btu per SF per year and other uses generate 318.8 thousand Btu per SF per year.

[41] The source of the multipliers from the CEQR City Environmental Quality Review Technical Manual is from the New York City Department of Finance & US Department of Energy, National Renewable Energy Laboratory, 2009. Inventory of New York City Greenhouse Gas Emissions.

[42] D&R International, Ltd under contract to Pacific Northwest National Laboratory. *2011 Buildings Energy Data Book.* Prepared for U.S. Department of Energy. March 2012.

An increase in the consumption of energy resources, including electricity and sometimes natural gas is always expected from development, especially development on a relatively large predominantly vacant properties, regardless of whether the site is proposed for industrial, commercial or mixed-use purposes. Increased energy demand will clearly occur as part of the Proposed Action and site development and any alternative buildout of the site under existing conditions. This increase, however, is incremental and typically small compared to total regional use, available supply and demand and commonly have negligible impacts on energy delivery. It is anticipated that additional business growth at the subject property will be developed over a number of years, if not decades, in response to market demand, as well as local economic conditions. Moreover, the subject project will be built to comply with applicable land use, zoning, building, and environmental and energy standards and regulations, therefore, providing a density that is reasonable and sustainable for the site.

Electric and natural gas services are present in the area to serve the site. Future buildings will be constructed consistent with current State building codes and new building construction in New York State must conform to applicable statewide energy codes. The New York State Energy Conservation Construction Code is promulgated by the State Fire Prevention and Building Code Council pursuant to Article 11 of the New York State Energy Law. The New York Energy Code is contained in Title 19 of the New York Codes, Rules and Regulations ("NYCRR"), Part 1240, and in the publications incorporated by reference in 19 NYCRR Part 1240. As of September 2, 2016, an update to the commercial provision of the Energy Conservation Construction Code of New York State ("ECCC") is now in effect. The ECCC addresses the design and construction of energy-efficient building envelopes and the installation of energy-efficient mechanical, lighting and power systems through requirements emphasizing performance. The ECCC establishes minimum requirements for energy-efficient buildings using prescriptive and performance-related provisions.

It is anticipated that development will occur in accordance with current requirements, which typically rely on more energy-efficient building materials (e.g., insulations, windows, weather stripping, door seals, etc.), as well as the installation of more modern mechanical systems (e.g., Energy Star or other energy conserving air conditioners, heating systems, HVAC systems, water heaters, heat pumps, etc.). This will minimize the amount of energy resources required compared to the less efficient materials and systems used in the past. Incorporation of such energy-conserving measures is not only required by the State of New York through its Building and Energy Conservation codes but is a sensible building construction and site occupation practice, particularly in light of the increasing costs and declining supplies of nonrenewable energy resources.

Additionally, future development at the subject property will:

- to the extent practicable, utilize reflective roofing for all proposed buildings to reduce heat absorption and conserve energy;
- to the extent practicable, future building exteriors will be constructed using recycled content and integral insulation for increased energy efficiency;

- when practicable, on-site uses (Suffolk Cement and Southampton Masonry) will provide materials for future buildings;
- when not provided by Suffolk Cement and Southampton Masonry, materials for buildings will be regionally sourced.

Also, as noted in **Section 3.2** of this DEIS, exterior lighting must conform to the requirements of East Hampton Town Code as outlined in §255-1-83 "General Lighting Standards," as well as additional lighting provisions contained in §255-1. These standards and regulations not only address potential visual and nuisance impacts that can sometimes be associated with outdoor lighting, including site, parking lot, and street lighting, but also help to reduce energy demand through the use of energy efficient light bulbs, conformance to maximum illumination standards, encouraging the use of photocells, light sensors and timers to limit the period that outdoor lighting is on and various policies to prevent over-lighting, light trespass, skyglow and glare, which can occur in part by excessive lighting. In addition, where practicable, the Applicant and future development will utilize LED lighting to reduce energy consumption.

It is expected that necessary utilities will be extended on to the site to meet the anticipated demand of future uses. The project team has made initial contact with the applicable service providers to request input and ask if there are any issues or concerns these entities may have, and to begin the approval process so that they can be finalized during the site plan review stage of the project. To date, two letters have been sent to each utility provider, but no response had been received by the time this DEIS was completed. The applicant will further coordinate with area utilities for final authorizations once the site plan is refined during the site plan review process and more precise energy estimates can be made. Furthermore, future projects will be required to undergo review by both PSEG Long Island and National Grid to ensure both entities can supply adequate resources, which will be reviewed on a lot-by-lot basis.

Finally, it should be noted that there will be an increase in the use of nonrenewable energy resources, including fossil fuels such as gasoline and diesel fuel during the site preparation and construction of future uses at the subject property to power heavy vehicles, machinery, equipment and power tools and as part of ongoing yard and building site maintenance once construction is completed. These impacts are expected to be of short duration and relatively small in the scope of overall use and demand for energy resources throughout the Town and Long Island region and are largely unavoidable impacts. Again, more recent innovations and energy conserving technologies have been built into modern vehicles and equipment to reduce energy use than comparable vehicles and equipment from decades past.

Based on the foregoing, the long-term energy resource supply and demand in the region is expected to remain virtually unaffected by the proposed project.

4.4.2 Climate Change

Energy generation and demand associated with the Proposed Action and future development of each lot is anticipated. Related to this is the generation of gaseous emissions from buildings to be built on-site and operation of future service commercial, wholesale and warehouse businesses. These emissions are a scientifically well-established contributor to global climate

change through a mechanism known as "the greenhouse effect," and are termed "greenhouse gases." The following description and discussion of greenhouse gasses ("GHG") is taken from the document, "Guide to Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements" **(NYSDEC, July 15, 2009)**.

Global climate change is emerging as one of the most important environmental challenges of our time. There is scientific consensus that human activity is increasing the concentration of GHGs in the atmosphere and that this, in turn, is leading to serious climate changes. Climate change will continue to adversely affect the environment and natural resources of New York State, the nation, and the world. Global climate change impacts are becoming increasingly severe and have caused increased precipitation events, temperatures, flooding, storm surge events and sea level rise.

There are six main GHGs: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Evaluation of the emissions of each of these GHGs could potentially be included in the scope of an EIS.

Emissions of CO_2 account for an estimated 89% of the total annual GHG emissions in New York State. The overwhelming majority of these emissions - estimated at 250 million tons of CO_2 equivalent per year - result from fuel combustion. Overall, fuel combustion accounts for approximately 89% of total GHG emissions. (N_2O and CH_4 also result from fuel combustion.) Additional GHG sources include electricity distribution (SF_6); refrigerant substitutes (HFCs); the management of municipal waste, municipal wastewater, and agriculture (CH_4 & N_2O); natural gas leakage (CH_4); and others.

According to the National Oceanic and Atmospheric Administration (NOAA), the speed of sea level rise has accelerated since the early 1990s and is a result of glaciers and ice sheets melting, which add water to the ocean, as well as the expanding volume of the oceans as waters warm. Additionally, according to NOAA "As global temperatures continue to warm, sea level will continue to rise. How much it will rise depends mostly on the rate of future carbon dioxide emissions and future global warming. How fast it will rise depends mostly on the rate of glacier and ice sheet melting."[43] As sea levels continue to rise, coastal areas become increasingly vulnerable to impacts associated with flooding from storm surges and weather events. In general, sea level rise presents a risk to people, resources and the economy.

SEQRA requires that lead agencies identify and assess adverse environmental impacts, and then mitigate or reduce such impacts to the extent they are found to be significant. Consistent with this requirement, SEQRA can be used to identify and assess climate change impacts, as well as the steps to minimize the emissions of GHGs that cause climate change. Many measures that will minimize emissions of GHGs will also advance other long-established State policy goals, such as energy efficiency and conservation; the use of renewable energy technologies; waste reduction and recycling; and smart and sustainable economic growth. This policy is not the only

[43] https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level.

state policy or initiative to promote these goals; instead, it furthers these goals by providing for consideration of energy conservation and climate change within EIS reviews.

In general, it is critical that new development proposals consider designs and practices that reduce emission of greenhouse gases. Greenhouse gas emissions result from combustion of fossil fuels, including direct/indirect emissions and stationary/mobile sources. The area proximate to the subject property is occupied by development that ranges in age and land use type, indicating that there is a wide range in the corresponding greenhouse gas emission characteristics including light industry, residential and commercial uses, operations at the East Hampton Airport and traffic along major area highways.

The following conservation measures will be incorporated into the design of the proposed project and future uses at the subject property:

- The subject property will be developed over a number of years, if not decades, in response to market demand for additional service commercial, wholesale and warehouse businesses;
- Mandatory NYS Energy Code features will be incorporated into the proposed project;
- All future uses will comply with the existing zoning regulations of the CI District;
- Rain gardens/bio-detention areas would be established at the rear of each lot, which will consist of native plantings such that no fertilizer dependent vegetation will be used on site. These rain gardens will remove phosphorus, nitrogen, suspended solids and bacteria, as well as capture stormwater runoff;
- The Applicant commits to not using fertilized turf for lawn areas and instead would utilize low mow grass for lawn areas (i.e., blend of fescue grasses) at each lot;
- Low mow grass and street trees would be installed along the proposed internal roadway systems throughout the subject property. Upon subdivision approval, the Applicant will stabilize the site with installation of meadow mix as part of the installation of the road system, until the development of individual lots occurs through site plan review;
- Traffic congestion will be avoided as a result of conformance with recommendations and mitigation in the Traffic Impact Study;
- To the extent practicable, utilize reflective roofing for all proposed buildings to reduce heat absorption and conserve energy;
- To the extent practicable, future building exteriors will be constructed using recycled content and integral insulation for increased energy efficiency;
- When practicable, on-site uses (Suffolk Cement and Southampton Masonry) will provide materials for future buildings;
- When not provided by Suffolk Cement and Southampton Masonry, materials for future buildings will be regionally sourced;

- LED lighting and high-efficiency mechanical units will be employed where feasible to reduced electrical and energy used (for heating/cooling); and
- Sustainable waste management practices will be followed and documented during construction,

These factors are expected to ultimately reduce inefficiencies to minimize the impact of energy generation/consumption and generation of greenhouse gases in order to reduce the Proposed Action's impact on climate change.

4.5 Construction-Related Impacts

4.5.1 Existing Conditions

Construction-related activity is an inevitable part of future development actions at the 70.51±-acre site as long as the land is in private ownership, regardless of whether the property is subdivided or not. This will result in clearing, grading, soil excavation, construction of foundations, buildings, parking lots, internal streets and driveways, and installation/extensions of necessary drainage, water mains, sewer mains, and energy transmission lines (See **Chapter 5, "Alternatives,"** for an assessment of future development of six existing continuous commercial industrial (CI) zoned lots ranging in size from 4.06± acres to 37.95± acres and potential impacts). Based on Alpha Geoscience's investigations and reports, no large-scale cleanup of the subject property is necessary as all metals present in the site's soil are do not pose an environmental threat, there are no VOCs present at the subject property, no PFOA or PFOS were detected on the undisturbed northern portion of the site.

Access to the subject property is currently from Old Montauk Highway to the south and Georgica Drive to the west. While these access areas could accommodate future construction related truck traffic, additional access to the site is proposed, as future discussed in **Section 4.5.2** below.

4.5.2 Potential Impacts

Construction will occur with or without the Proposed Action; however, it is recognized that the subdivision of the subject property into 50 CI zoned lots is being advanced to allow for reasonable development of the site to stimulate beneficial economic activity on a largely undeveloped industrially zoned property. As a result of the proposed subdivision, the site can be developed for existing and additional service commercial, wholesale and warehouse businesses.

Site preparation and construction is a short-term, temporary impact; however, given the size of the subject property and the timeframe for infrastructure improvements consisting of roads and underground utilities including public water and natural gas lines, increased activity proximate to the site in the form of clearing, soil disturbance, dust generation, erosion, increased construction traffic, and daytime noise can be expected. These factors would occur whether the site was developed for six industrial uses or 50 lots consisting of small service and support companies and can be managed through Town laws and the standards/mitigation

measures identified by this DEIS, as will be documented in a final SEQRA Findings Statement, the final Site Plan and Subdivision requirements, as well as Engineering and Building Department oversight. Additional development beyond clearing, grading, construction of internal roadways, installation of underground utilities and will occur on a lot-by-lot basis. While the specific details and timing of future developments are unknown at this time, it is anticipated that buildout of the site will occur over a number of years and possibly decades.

Soils on-site are generally well-suited for development and would pose mostly minor limitations or constraints to development. If any restrictive soil layers are encountered within any proposed leaching area, this soil will be removed and replaced with clean fill of an appropriate soil texture to facilitate leaching and recharge. Existing topography will be graded, paved and finished to create roads and drainage features, as well as achieve suitable grades for future development at each lot. Steep slopes will be present along the northern, eastern and western property boundaries, where undisturbed vegetated buffers are proposed to remain. Grading will be required to level the site for future commercial or industrial businesses. All material on the site will be reincorporated into the grading plan to level the subject property for development. As a result, the site development plan will achieve "balanced" site conditions to the maximum extent practicable. It is expected that on-site material will be used to raise the grade in some areas, and existing grades will be maintained where possible. Use of required drainage, erosion, sedimentation and dust controls, including installation of silt fencing, drain inlet controls, a suitable and stable construction access, and wetting bare soil as needed to control dust, staging all construction and worker vehicles on-site, implementing standard construction best management practices, and complying with Town permissible construction hours pursuant to Chapter 185 of the Town Code to control noise will reduce potential impacts from site preparation and on-site construction activities.

All construction trucks and equipment, as well as material storage and staging areas will use the existing site entrance on Old Montauk Highway, and all equipment, materials and trucks will be stored and staged within the site. Construction trucks will also utilize new access points on Wainscott Northwest Road and Daniels Hole Road which will provide safe and convenient access to the existing local road network from the subject property. Providing multiple access points improves traffic circulation and decreases the use of any one access. Heavy construction vehicles and equipment can be parked on-site for extended periods of time with relatively limited need for excessive on and off-site dump truck traffic. Short term construction impacts are not expected to be significant given the erosion control measures, presence of a water truck to wet dry soils, short-term duration of the proposed infrastructure improvements, activities to occur during normal daytime hours, perimeter buffering from existing homes in the area, and the review, approval, construction management and development oversight that will occur with respect to this project.

All drainage systems will comply with requirements under NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP 0-15-002 or "General Permit") and Chapters 216 and 220, Article XV of the Town Code. A SWPPP will be prepared and will include details of the erosion controls to be employed during construction. The proposed dimensions, material specifications, and installation details for all erosion and sediment control practices

will be subject to Town review and approval. The SWPPP will include practices consistent with the NYS Standards and Specifications for Erosion and Sediment Control. In addition, the Proposed Action will conform to the standards and specifications included in the New York State Stormwater Management Design Manual (as required by the Town Code), which provides criteria on minimizing erosion and sediment impacts from construction activity involving soil disturbance. Best management practices will be incorporated into the Final Erosion and Sediment Control Plans, which will assist in ensuring that the Proposed Action will minimize potential adverse impacts related to erosion.

4.5.3 Mitigation

Site preparation and construction activity mitigation identified by this DEIS includes the following actions:

- Clearing and rough grading of the site will be conducted in accordance with the approved Site Plan and under the supervision of the Town Building Department.
- A stabilized construction entrance will be provided to reduce the tracking of soil on to public streets.
- A Final Erosion and Sediment Control Plan will be prepared during the site plan review stage and implemented during construction.
- Erosion controls including work area perimeter silt fencing and drainage inlet protection will be installed around all grated drainage inlets, as applicable, to prevent sediments from entering and settling within any subsurface drainage structures that may be affected.
- Drainage infrastructure will be installed to meet the requirements of the Town and will be designed to the satisfaction of the Town Engineer.
- A SWPPP will be prepared as part of the site plan submittal.
- Material staging areas and designated stockpile locations will be located on-site and will be protected.
- Dampening soil if necessary to control dust, installation of a stabilized construction entrance and/or “rumble” strips at the construction entrance to remove soil from truck tires, drainage inlet protection (if drains may be affected), establishment of suitable internal construction staging areas and retention of naturally vegetated buffer areas around the eastern and western perimeters of the property will minimize disturbance and issues from soil resources during construction to the extent practicable. Onsite construction vehicle speeds will be kept to a minimum to prevent unnecessary raising of dust.
- Strict adherence to time periods when construction related noise is exempt from the maximum permitted levels including in Chapter 185 (Noise) will minimize construction related noise impacts.

5.0 ALTERNATIVES

5.1 Introduction

SEQRA requires every DEIS to consider reasonable alternatives to the proposed project. This phase of environmental review provides the context and framework for identifying, describing, comparing and contrasting feasible project alternatives. Investigation of alternatives is an integral part of the land use planning and impact identification and mitigation processes as they provide for a broader understanding and evaluation of issues and create a foundation for more informed decision-making by the Lead Agency and other involved agencies. Alternatives may include changes to a project's location, size, scale, design, layout, density, intensity, alignment, orientation, technologies, methodologies, timeframes, phasing, or other modifications that are reasonable considering the objectives and capabilities of the project sponsor.

SEQRA also requires the DEIS to contain a comparative assessment of what it refers to as the "No Action Alternative." The No Action Alternative provides a basis from which to identify, characterize and assess future conditions and possible impacts and benefits that are likely to result in the reasonably foreseeable future in the absence of any new projects, land use(s), site disturbances, and construction or other activities. SEQRA requires the discussions and analyses of project alternatives to be conducted at a level of detail sufficient to allow for the comparison of impacts and project mitigation techniques by the Lead Agency and all involved decision-making entities as defined by SEQRA. The alternatives are depicted on plans that are included in **Appendix I**.

The alternatives considered for the Subject Action are as follows:

Alternative 1: ("No Action Alternative")

Alternative 1 is the "No Action Alternative" which is required by SEQRA for DEISs. The No Action Alternative is intended to identify the conditions that currently exist on a site and that may be expected in the foreseeable future if no action is undertaken. The No Action Alternative provides the groundwork for an assessment of anticipated future impacts and benefits under current conditions and a foundation for comparing and contrasting a Proposed Action with *status quo* conditions.

Since the subject property is currently subdivided into six contiguous lots ranging in size from 4.06± acres to 37.95± acres, this analysis will include the continuation of Suffolk Cement on Lot 21 and Southampton Masonry on Lot 22, as well as the eventual redevelopment of the four remaining tax lots with a multiple industrial complex, which is permitted by special permit in the CI zoning district.

Alternative 2: ("Suffolk Cement Relocation Alternative")

Alternative 2 provides an assessment of the modified Proposed Action to reflect the relocation of Suffolk Cement to the northern portion of Lot 22. This alternative assumes that the subject property would still be subdivided into 50 CI Zoned parcels for commercial/ industrial

businesses and Suffolk Cement would be relocated immediately north of the one-story storage building associated with Southampton Masonry.

Alternative 3: ("Open Space Alternative")

Alternative 3 provides an assessment of the modified Proposed Action to reflect open space/reduced density, which would include 7 acres of open space immediately northwest of Lot 21 and immediately east of Wainscott Northwest Road. Suffolk Cement would also be relocated in this alternative to the north of the Southampton Masonry operations (on Lot 22) and the 4.14± acres on Lot 21 could potentially be purchased by the Town. A total of 38 lots of various sizes are proposed in this alternative.

Alternative 4: ("Hamlet Plan")

Alternative 4 examines an alternative driven by the Wainscott Hamlet Report. This alternative includes 32 proposed lots, 14 acres of land to be purchased by the Town for parkland, 7 acres of open space, 2.17 acres of land to potentially be purchased for train station parking and the relocation of Suffolk Cement such that 4.25± acres on Lot 21 could potentially be purchased by the Town for parking and other municipal uses.

5.2 Alternative 1: No Action Alternative

The No Action alternative assumes that the subject property would continue to remain six tax lots ranging in size from 4.06± acres to 37.95± acres and approximately 56 acres of the 70.51± acres site would remain in its existing condition as a predominantly vacant and underutilized as a former sand mine. This alternative also assumes that operations associated with Suffolk Cement would continue on Lot 21 (37.95± acres) and Southampton Masonry would continue to operate on Lot 22 (9.03± acres), while the one remaining lessee (Emergency Mechanical Services) would continue to lease land area at the discretion of the Applicant.

There would be no new clearing, ground or site disturbance, no construction, and no other activities on the property in the immediate future. There would be no immediate modifications or impacts to on-site or adjacent natural resources, and no changes, positive or negative, to the community. Leaving the site in its current condition, has various environmental (slopes, soils, wetlands, surface water, groundwater), ecological (wildlife, wildlife habitat), and traffic benefits and there would be no additional demand for potable water, energy, wastewater treatment or solid waste pickup and disposal aside from what is currently being generated/needed for operations at Suffolk Cement, Southampton Masonry and Emergency Medical Services. The subject property under the No Action Alternative would not generate additional stormwater runoff that would have to be captured and recharged.

Foregoing subdivision of the subject property into 50 CI zoned lots and future development of the former sand mine would prevent the 56± acre vacant portion of the property from being put to any productive use, causing it to continue as a financial drain on the Applicant who has paid property taxes for these vacant parcels since their purchase in 1986. Lack of development on the 56± acres of the site precludes the possible use of the vacant parcels to stimulate

growth, financial investment, economic development, increased property tax revenues that would help support community services, investments in infrastructure, new construction and employment opportunities. In addition, the subject property would be unable to support current and future small commercial service, wholesale and warehouse businesses, which provide vital services and support to the Town's dominant and expanding construction, tourism, and second homeowner's driven economy.

Moreover, this No-Action Alternative assumes that 23.5± acres consisting of three parcels on the northern-northeastern portion of the property and 4.06± acres previously utilized by Landscape Details, could eventually be redeveloped into a multiple industrial complex over a number of years, if not decades, and would require special permit approval. Additionally, the Applicant could seek site plan approval for a number of as-of-right more intensive commercial or industrial uses to be constructed on the four vacant parcels such as boat yards, filling stations, printing shops, wholesale businesses, a truck terminal, a truck transfer station or warehouses for storage yards or building supplies distributions. As such, under this alternative, the Applicant would not prohibit certain heavy industrial land uses permitted or permitted by special permitted by covenant that are prohibited under the Proposed Action.

Under the No-Action alternative, 32± acres of Lot 21 at the subject property would remain as undeveloped former sand mine area. An internal roadway paved lined with street trees and lawn area would not be installed throughout the subject property. Existing wooded vegetation along the eastern and western property boundaries consisting of 7.6± acres would still be retained under this alternative; however, additional landscaping would not be installed along these property boundaries.

The No Action Alternative is inconsistent with the Applicant's right to pursue development of the vacant portion of the site, does not meet the objectives of the Applicant and will continue to result in adverse financial impacts to the Applicant. As such, the No-Action Alternative is not viewed as a feasible alternative by the Applicant. Nonetheless, as required by SEQRA, the sections below analyze potential impacts based on the above-described alternative.

Table 5-1 provides a quantitative comparison of the existing conditions with the No Action Alternative verses the Proposed Action and summarizes the potential impacts and benefits of this alternative.

TABLE 5-1
COMPARISON OF NO ACTION ALTERNATIVE

Parameter	Existing Conditions	No Action Alternative	Proposed Action
Land Use	Mostly vacant former sand mine with three commercial/ industrial uses thereon.	Mostly vacant former sand mine with three commercial/ industrial uses thereon; potential for four new large industrial uses.	Subdivision of subject property into 50 CI zoned lots, with commercial/ industrial businesses, including Suffolk Cement and Southampton Masonry.
Wastewater Treatment System	Individual conventional on-site sanitary systems	Four new I/A OWTS[1]	48 new I/A OWTS[1]
Site Coverages (acres):	**Existing Conditions**	**No Action Alternative**	**Proposed Action**
Roads, Buildings and Other Paved or Impervious Surfaces	3.72±	25.29±[2]	47.00±
Forest	9.20±	7.60±	7.60±
Meadows, grassland or brushland	37.05±	21.5±[3]	0
Non-vegetated (bare rock, earth or fill)	20.54±[4]	12.86±[4]	3.80±[5]
Landscaping	0	3.26	12.11±
Total	**70.51±**	**70.51±**	**70.51±**
Water Resources:[6]	**Existing Conditions**	**No Action Alternative**	**Proposed Action**
Domestic Water Use (gpd)	964±[6]	21,463±[7]	16,016±[8]
Total Sanitary Waste Generation (gpd)	964±[6]	21,463±[7]	16,016±[8]
Vehicle Trips Generated:[9]	**Existing Conditions**	**No Action Alternative**	**Proposed Action**
Weekday AM Peak Hour (vph)	--[10]	--[11]	300
Weekday PM Peak Hour(vph)	--[10]	--[11]	303
Saturday Midday Peak Hour (vph)	--[10]	--[11]	147
Miscellaneous:	**Existing Conditions**	**No Action Alternative**	**Proposed Action**
Parking Required (spaces)	--[12]	--[13]	--[13]
Parking Provided (spaces)	--[12]	--[13]	--[13]
Solid Waste (Garbage) Generation (lbs./day)	121.5±[14]	10,371±[15]	7,648±[16]

Key: gpd - gallons per day; vph-vehicles per hour; lbs – pounds
[1]Excludes Suffolk Cement and Southampton Masonry.
[2]Includes all existing impervious surface coverage associated with Southampton Masonry and Suffolk Cement and assumes a 75 percent total lot coverage for each of the four remaining lots.

[3]Refers to successional old field and associated unpaved trails within the interior of the subject property.
[4]Refers to former sand mining areas.
[5]Refers to proposed pervious storage areas.
[6]Assumes a density load factor of 0.04 gpd per square foot for general industrial uses and a density load factor of 0.06 gpd per square foot for non-medical office space (office space above the Southampton Masonry tile showroom) **(Suffolk County Department of Health Services, 2009)**. Does not account for potential landscaped irrigation.
[7]Assumes a density load factor of 0.04 gpd per square foot for general industrial uses, includes existing water/sanitary use for Southampton Masonry and Suffolk Cement and assumes 50 percent building coverage for each of the four remaining lots (**Suffolk County Department of Health Services, 2009**). Does not account for potential landscaped irrigation.
[8] Based on a potential building coverage of 18.75% as a result of full buildout of the subject property and a factor of 0.04 gpd. Includes existing water/sanitary use for Southampton Masonry and Suffolk Cement (**Suffolk County Department of Health Services, 2009**).
[9]ITE Trip Generation Manual, 9th Edition. See TIS provided in **Appendix H** .
[10]See TIS for existing traffic generated by Suffolk Cement and Southampton Masonry, which are included in existing traffic counts for the surrounding area.
[11]See TIS for existing traffic generated by Suffolk Cement and Southampton Masonry, which are included in existing traffic counts for the surrounding area. It is anticipated that there would be a nominal traffic under the No Action alternative, which would take years, if not decades for either a special permitted use (multiple industrial complex) or four as-of-right commercial or industrial intensive uses.
[12]There are no designated striped parking stalls at the overall subject property. However, sufficient parking areas are provided for existing uses at the subject property (i.e., Southampton Masonry, Suffolk Cement and one lessee), in accordance with Town Code requirements (1 parking space per 180 GFA for office or office building, 1 parking space per 500 SF for manufacturing or industrial establishment and 1 parking space per employee for warehouses).
[13]All future use will provide designated parking and loading stalls in accordance with Town Code requirements (1 parking space per 180 GFA for office or office building, 1 parking space per 500 SF for manufacturing or industrial establishment, and 1 parking space per employee for warehouses).
[14]Assumes a factor of 1.2 lbs./day/1,000 SF of wholesale and retail facility for Southampton Masonry and 2 lbs./day/100 SF for Suffolk Cement **(Salvato, 2009)**.
[15]Assumes a factor of 2 lbs./day/100 SF of warehouse space for four remaining lots and includes existing solid waste generation for Southampton Masonry and Suffolk Cement.
[16]Based on a factor of 2 pounds per day per 100 SF of warehouse space for full buildout (potential building coverage of 18.75%) of the subject property and includes continuing operations at Southampton Masonry and Suffolk Cement.

Advantages and Disadvantages

In the preliminary stages of the No-Action alternative, there would be a) no disturbance of land, b) minimal impacts on groundwater resources, c) traffic and parking conditions would remain unchanged, d) noise levels would not increase above existing conditions, e) there would be no change in demand for community services, f) aesthetics of the site would be consistent with existing conditions, and g) current and economic needs of the Town for the expanding construction, tourism, and second homeowner's driven economy would not occur.

However, this alternative also considers the eventual redevelopment of the four vacant parcels at the subject property into a multiple industrial complex. Based on the current CI zoning district requirements, a potential multiple industrial complex could include more intensive uses than small commercial/industrial business, there would be less landscaping in the form of rain gardens/bio-detention areas compared to the Proposed Action, and this alternative would not involve the installation of an internal road system lined with trees and native plantings. As

depicted in **Table 5-1**, approximately 13 acres of sand mine would remain at the subject property under the No-Action alternative. Furthermore, under this alternative there would be an increase in solid waste generation, domestic water use and sewage generation compared to the Proposed Action. Specifically, post-construction the sewage generation and water use for the No-Action alternative would be approximately 5,450 gpd greater than the Proposed Action, and the post-construction solid waste generation for this alternative would be 2,723 lbs./day greater than the Proposed Action.

Although there are some environmental benefits from Alternative 1 (the No Action Alternative), this scenario is not in keeping with the goals of the project sponsor, is impractical, untenable, and unreasonable for privately owned land. Foregoing redevelopment of the currently vacant portion of the site also would result in the loss of various fiscal and economic benefits to support the Town's dominant and expanding construction, tourism, and second homeowner's driven economy. Since the subject property contains four undeveloped parcels ranging in size from 4.16± acres to 8.03± acres, it is anticipated that continued pressure for future development would occur, and larger more intensive uses rather than small commercial service commercial, wholesale and warehouse business as anticipated under the Proposed Action, would locate to the subject property.

Conclusion

In consideration of the above factors, the No Action alternative would not be preferable to the property owner as the long-term costs of property maintenance and continued payment of property taxes, is not sustainable when there would be less of an economic return on the land as opposed to the Proposed Action. Therefore, the No-Action alternative is considered an unreasonable and impractical alternative, based on the project sponsor's objectives and capabilities.

5.3 Alternative 2: Suffolk Cement Relocation Alternative

The Suffolk Cement Relocation Alternative is a similar to the Proposed Action such that the subject property would still be subdivided into 50 CI Zoned parcels and Suffolk Cement would be relocated immediately north of the one-story storage building associated with Southampton Masonry. All existing buildings would remain in their current location. Suffolk Cement would also utilize a portion of the land formerly utilized by Landscape Details (and depicted as Lot 23 the Preliminary Site Plans) for a total land area of 4.34± acres, which is slightly larger than the currently utilized parcel by Suffolk Cement (4.14± acres).

All silos, hoppers and associated Suffolk Cement equipment would be relocated to this area, a new 5,000 SF building would be constructed, and new formal parking areas would be established. New landscaping would be installed to the east, north and west of Suffolk Cement, a new vegetated drainage area would be installed on the northeastern portion of this area and existing vegetation along the eastern boundary of Southampton Masonry would be enhanced to provide additional screening and separation from the residences to the east. For this alternative, Lot 21 would be subdivided into two parcels at approximately 2.07 acres each and

Lot 23 would be utilized by Suffolk Cement (see **Concrete and Masonry Supply Yards Concept Plan** in **Appendix I**).

Advantages and Disadvantages

Implementation of Alternative 2 would result in increased initial soil and topographic disturbances on the southeastern portion of the overall subject property following the preliminary subdivision, in comparison to the Proposed Action. Suitable grades will need to be established north of Southampton Masonry for proposed parking, the new 5,000 SF building, associated equipment and landscaping areas. In addition, minor excavation would occur to install the drainage area, which would be revegetated, and excess soil would be reintegrated into the overall site. Furthermore, the current Suffolk Cement property would need to be paved and graded for future development.

Once Suffolk Cement is established to the north of Southampton Masonry, all infrastructure improvements (i.e., installation of underground utilities, drainage and internal roadways), site access and overall site preparation would be consistent with the development activities associated with the Proposed Action. All on-site drainage systems will be designed to fully accommodate the volume of runoff anticipated from the required design storm event, and in conformance with Town specifications and requirements. Common driveways will access adjoining sites, buildings will be placed near the front yard setback area and parking will be distributed around the building with storage/loading to the rear, and stormwater retention/rain garden areas behind storage areas. All sites will be landscaped with native shrubs and non-fertilizer dependent meadow. These sites will be constructed based on market demand and phased over time depending on these economic conditions and area needs. Upon subdivision approval, the Applicant will stabilize the site with installation of meadow mix as part of the installation of the road system, until the development of individual lots occurs through site plan review.

Conclusion

Potential impacts and mitigation measures associated with the Proposed Action and presented throughout Section 3 of this DEIS would be substantially similar to the Suffolk Cement Relocation Alternative.

5.4 Alternative 3: Open Space Alternative

The Open Space Alternative involves the subdivision of the subject property into 40 lots, including the establishment of a 7 acre open space parcel on the southwestern portion of the site (includes Suffolk Cement and Southampton Masonry lots). In addition, this alternative also considers the relocation of Suffolk Cement to the same location as noted in Section 5.3, immediately north of Southampton Masonry. As such, Suffolk Cement and Southampton Masonry would occupy one parcel together under this alternative. Once Suffolk Cement has relocated, the Town would have the option to purchase the 4.14± acre parcel (Lot 21 under the Proposed Action). Therefore, 38 parcels in this alternative would contain commercial/industrial uses, one parcel would be designated as open space, and the former Suffolk Cement property could be purchased by the Town for whatever public needs the Town believes are necessary or

to provide a suitable balance of uses for the site (see **Reduced Density/Open Space Plan** in **Appendix I**). It should be noted that all vegetation along the eastern and western property boundaries would be removed to accommodate the 7± acre open space parcel. Therefore, vegetated buffers would not be provided along the entire eastern and western property boundaries. However, the open space parcel would be utilized as a buffer to partially screen the already limited internal views of the site from residences along Wainscott Northwest Road. This open space parcel would require revegetation as the majority of the proposed open space parcel is former sand mine area and successional old field.

Internal roadways would be constructed under this alternative; however, the Wainscott Commercial Drive West roadway currently proposed under the Proposed Action (which extends from Georgica Drive to the proposed DI Gate Drive) would instead be constructed as a cul-de-sac south of DI Gate Drive. All infrastructure improvements (i.e., installation of underground utilities, drainage and internal roadways) and site access would be similar to the Proposed Action. In addition, rain gardens/bio-detention areas would be installed at the rear of each lot (except on the open space parcel and Southampton Masonry/Suffolk Cement parcel).

Table 5-2 compares anticipated conditions under the Proposed Action versus the Open Space Alternative.

TABLE 5-2
COMPARISON OF THE PROPOSED ACTION AND OPEN SPACE ALTERNATIVE

Parameter	Open Space Alternative	Proposed Action
Land Use	Subdivision of subject property into 40 CI zoned lots: 38 CI zoned lots with commercial/ industrial businesses thereon, one 7± acre open space parcel, and the 4.14± acre Suffolk Cement parcel to potentially be purchased by the Town; includes Suffolk Cement and Southampton Masonry on one lot	Subdivision of subject property into 50 CI zoned lots, with commercial/ industrial businesses, including Suffolk Cement and Southampton Masonry
Wastewater Treatment System	37 new I/A OWTS[2]	48 new I/A OWTS[1]
Site Coverages (acres):	**Open Space Alternative**	**Proposed Action**
Roads, Buildings and Other Paved or Impervious Surfaces	37.85±	47.00±
Forest	3.00±[3]	7.60±
Meadows, grassland or brushland	4.00±[4]	0
Non-vegetated (bare rock, earth or fill)	9.74±[6]	3.80±[5]
Landscaping	15.92±	12.11±
Total	**70.51±**	**70.51±**
Water Resources:	**Open Space Alternative**	**Proposed Action**
Domestic Water Use (gpd)	15,870±[7]	16,016±[7]

Parameter	Open Space Alternative	Proposed Action
Total Sanitary Waste Generated (gpd)	15,870±[8]	16,016±[8]
Vehicle Trips Generated[9]:	**Open Space Alternative**	**Proposed Action**
Weekday AM Peak Hour (vph)	105	300
Weekday PM Peak Hour (vph)	109	303
Saturday Midday Peak Hour (vph)	45	147
Miscellaneous:	**Open Space Alternative**	**Proposed Action**
Parking Required (spaces)	--[10]	--[10]
Parking Provided (spaces)	--[10]	--[10]
Solid Waste (Garbage) Generation	7,575±[12]	7,648±[11]

Key: gpd- gallons per day; vph-vehicles per hour
[1]Excludes Suffolk Cement and Southampton Masonry.
[2]Includes Suffolk Cement/Southampton Masonry parcel. Excludes Suffolk Cement parcel to be purchased and 7± acre open space parcel.
[3]Refers to estimated existing forest area to be retained at open space parcel.
[4]Refers to open space parcel consisting of predominantly successional old field.
[5]Refers to former sand mining areas to remain.
[6]Refers to proposed pervious storage areas and Suffolk Cement parcel (sand mine area) once Suffolk Cement is relocated.
[7]Does not account for potential landscaped irrigation.
[8]Assumes a building coverage of 18.75% and a density load factor of 0.04 gpd per square foot for general industrial uses. Accounts for existing water usage and sanitary waste generation associated with Southampton Masonry and Suffolk Cement.
[9]ITE Trip Generation Manual, 9th Edition; See Traffic Impact Study provided in **Appendix H**.
[10]All future use will provide designated parking stalls in accordance with Town Code requirements (1 parking space per 180 GFA for office or office building, 1 parking space per 500 SF for manufacturing or industrial establishment. and 1 parking space per employee for warehouses).
[11]Based on a factor of 2 pounds per day per 100 SF of warehouse space for full buildout (potential building coverage of 18.75%) of the subject property and includes continuing operations at Southampton Masonry and Suffolk Cement.
[12]Assumes a building coverage of 18.75% at each of the 38 remaining parcels (consistent with the Proposed Action) and includes continuing operations at Southampton Masonry and a solid waste factor of 2 pounds per day per 100 SF of warehouse space for operations of Suffolk Cement at Southampton Masonry lot.

5.4.1 Topography and Soils

It is impossible to develop a property without disturbing soils and site topography. Nevertheless, an analysis of site conditions revealed no significant soil or topographic limitations at the property and no significant soil and topographic impacts that could not be suitably mitigated by incorporating the various methods and techniques identified in Section 2.0 (i.e., dust control, erosion, sedimentation, slope stabilization, and stormwater management). This finding applies to both the Proposed Action and the Open Space Alternative.

Similar to the Proposed Action, the Open Space Alternative would have an average site elevation of approximately 18 feet. The primary differences between the two development scenarios, however, is that the Open Space Alternative would require less impervious surface

area (37.97± acres or approximately 54 percent of the site for the Open Space Alternative compared to 47± acres (or approximately 67 percent site for the Proposed Action), but would retain less existing forested areas (i.e., pitch pine-oak forest) along the eastern and western property boundaries to accommodate the 38 parcels proposed under this alternative scenario. As such, the total disturbance of soils and site topography would be greater under the Open Space Alternative. Additionally, a greater amount of sand mine area would be retained under the Open Space Alternative (approximately 6 acres greater compared to the Proposed Action) and approximately 3.7 acres of additional landscaping would be required to supplement forested area to be removed.

A SWPPP will be prepared and will include details of the erosion controls to be employed during construction. The proposed dimensions, material specifications, and installation details for all erosion and sediment control practices will be subject to Town review and approval. The SWPPP will include practices consistent with the NYS Standards and Specifications for Erosion and Sediment Control. In addition, the Open Space Alternative would conform to the standards and specifications included in the New York State Stormwater Management Design Manual (as required by the Town Code), which provides criteria on minimizing erosion and sediment impacts from construction activity involving soil disturbance. Best management practices will be incorporated into the Final Erosion and Sediment Control Plans, to minimize potential adverse impacts related to erosion.

5.4.2 Water Resources

Water and Sewer

There are no wetlands on-site or immediately adjacent to the site; however, the northwest Georgica Pond Tributary freshwater wetland is located within wooded land on the east side of Hedges Lane, southeast of the subject site. Given the setback to the nearest wetland (more than 350 feet from the site), construction activities associated with the Open Space Alternative will not occur within 100-feet of a NYSDEC Article 24 wetland jurisdiction area similar to the Proposed Action. Therefore, significant impacts on surface waters or wetlands from the Open Space Alternative would not be expected with proper mitigation. As shown in **Table 5-2**, the Open Space Alternative would result in slightly less potable water usage (15,870± gpd compared to 16,016± for the Proposed Action), as well as slightly less sanitary wastewater generation (15,870± gpd compared to 16,016± for the Proposed Action) due the reduced density proposed in this alternative (38 lots compared to 50 lots). However, this does not factor in water usage for landscape irrigation. As with the Proposed Action, I/A OWTS will be installed on individual commercial sites on a lot-by-lot basis under the Open Space Alternative. Therefore, the Open Space Alternative would not greatly differ from the Proposed Action in terms of water usage and sanitary wastewater generation.

Stormwater

As a result of the proposed subdivision under the Open Space Alternative, infrastructure improvements (roads, recharge and individual site development) would be installed, including

proper grading and drainage controls, which currently do not exist on the subject property. This alteration of drainage pattern and volume of runoff generated on the site will ensure that stormwater is contained and recharged to groundwater. The Open Space Alternative would increase stormwater runoff in terms of total volume due to an increase in impervious surfaces on-site including internal streets as well as the clearing of trees and other vegetation that absorb water and promote evapotranspiration on the currently vacant property. While the Open Space Alternative retains 7 acres of open space, this area would be dedicated to one portion of the site (southwestern portion proximate to the Suffolk Cement property) and would primarily consist of successional old field with limited pitch pine-oak forest, whereas the Proposed Action would retain pitch pine-oak forest along the eastern and western property boundaries to capture stormwater runoff throughout the entire site.

As with the Proposed Action, future uses will utilize surface bio-retention areas for stormwater treatment and open space at the rear of each individual site. This will serve as an additional stormwater treatment method and to ensure water quality protection through design elements consistent with current and innovative green infrastructure technologies.

Under the Open Space Alternative, Suffolk Cement would be relocated and the 4.14± acre parcel could potentially be purchased by the Town. However, under this alternative, it is uncertain how this parcel would be developed and if bio-retention areas with native plantings would be incorporated thereon.

Both development scenarios would require stormwater catch basins and leaching pools to recharge runoff from the subdivision road planned for the site, which would be designed in accordance with the Town of East Hampton's stormwater management regulations and would comply with the standards and specifications included in the New York State Stormwater Management Design Manual. A SWPPP would be prepared in accordance with the requirements for the General Permit for Stormwater Discharges from Construction Activity and Chapter 216 of the Town Code.

Erosion and sedimentation controls will also be put into place during site clearing, grading, and construction, thereby retaining sediment on the property and keeping it from being transported and deposited into street drainage systems or on to adjacent properties. Erosion control measures will be installed and maintained in accordance with the NYS Standards Specifications for Erosion and Sediment Control and Chapter 216 of the Town Code. BMPs will also be utilized in the Final Erosion and Sediment Control Plan. Dust controls and staging of water trucks to wet soils will also be employed as needed. Silt fencing would be installed around the limits of disturbance, and as necessary, and would be maintained throughout construction activities.

5.4.3 Ecology

As noted above, the Open Space Alternative would reduce the amount of pitch pine-oak forest area compared to the Proposed Action by approximately 4.5 acres. Therefore, there will be less potential forest habitat for local birds and mammals under the Open Space Alternative. While particular species of wildlife (particularly avian species) would migrate to the open space parcel

as result of development, there would be less forested area at this location as the majority of the proposed open space parcel contains successional old field (approximately 4 acres of successional old field and approximately 3 acres of forested area). However, raingardens would be installed at each of the 38 lots consisting of native plant species that would provide food and shelter to wildlife, potentially providing a more suitable habitat for local wildlife than the current and former sand mine. As this alternative would provide approximately 4.5 acres less of forested area under the Proposed Action, it is anticipated that some avian species that current inhabit forested area would migrate elsewhere in the Town. Additionally, upon subdivision approval, the Applicant will stabilize the site with installation of meadow mix as part of the installation of the road system, until the development of individual lots occurs through site plan review. As such, no significant adverse impacts on these wildlife and vegetation are anticipated under the Open Space alternative.

5.4.4 Land Use, Zoning and Plans

Land Use

Similar to the Proposed Action, subdivision of the subject property, construction of internal roadways and installation of utilities and stormwater management systems will not change the land use classification of the property. Following receipt of all regulatory approvals and installation and construction activities, the majority of the subject property will remain vacant with a 7 acre open space parcel, Southampton Masonry supply yard would remain operational and Suffolk Cement would relocate north of the masonry yard. Once Suffolk Cement has relocated, the Town would have the option to purchase the 4.14± acre parcel for whatever public needs the Town believes are necessary or to provide a suitable balance of uses for the site. The 38-lot subdivision under the Open Space Alternative (excluding the vacant Suffolk Cement property) would eventually lead to redevelopment of the former reclaimed sand mine.

Land uses would change from vacant to 38 lots developed in conformance with zoning as lots are developed over time and based on market conditions. Similar to the Proposed Action, the majority of the future uses at the subject property would consist of small service commercial, wholesale and warehouse business (e.g., lumber and building products, storage yards and building supplies distributions). Actual uses to occupy the site will be based on demand and market conditions.

Typical lots under this alternative would range in size from 0.92± acres or approximately 40,000 SF to 2.41± acres or approximately 104,980 SF in size with internal access from the proposed subdivision road, common driveways for adjoining lots and perimeter buffers planned as part of the subdivision open space as well as rear yard bio-retention areas and buffering. Lot 1 would be 9± acres and would be occupied by both Southampton Masonry and Suffolk Cement (see **Reduced Density/Open Space Plan** in **Appendix I**). Once Suffolk Cement is relocated under this alternative, it is uncertain if the Town would purchase the 4.14± acre parcel. Therefore, this parcel could remain vacant and underutilized if not purchased by the Town.

Future commercial/industrial uses at the subject property would be similar to industrial uses at the Town's Industrial Park along Industrial Road, several commercial/industrial uses along

Industrial Road northwest of the subject property and various commercial and industrial uses along Montauk Highway south and southwest of the subject property. Additionally, future commercial/industrial uses on these lots will provide a better transition to the adjacent single-family neighborhoods to the east and west and to the Wainscott Business District than six large and more intensive land uses that could be permitted on the existing six lots ranging in size from in size from 4.06± acres to 37.95± acres.

This alternative would provide the required 10 percent open space in accordance with Chapter 220 of the Town Code in the form of the proposed 7 acre open space parcel. Existing forested area along the eastern and western property boundaries would be removed, aside from the forested area at the proposed open space parcel. Therefore, vegetated buffers would not be provided between the subject property and residences on Wainscott Northwest Road (north of Darley Road) or residences on Hedges Lane. Additionally, a greater amount of sand mine area would be retained under the Open Space Alternative (approximately 6 acres greater compared to the Proposed Action) and approximately 3.7 acres of additional landscaping would be required to supplement forested area to be removed. As such, the Open Space Alternative would establish raingardens at the rear of each lot and would conform the setback requirements of the CI zoning district, no significant adverse impacts to land use would occur as a result of the Open Space Alternative.

Zoning

The Open Space Alternative would provide 38 lots that would conform to the minimum lot size required by CI zoning district (40,000 SF minimum). As with the Proposed Action, all future development, as well as Southampton Masonry and Suffolk Cement, would conform to the current CI zoning district requirements in Chapter 255 of the Town Code such that future uses will meet the requirements for height, setbacks, lot coverage and building coverage set forth in *255 Attachment 5 Business and Commercial-Industrial Districts Table of Dimensional Regulations*. As noted above, the Open Space Alternative would provide the minimum 10 percent open space as required by Town Code in the form of a designated open space parcel on the southwest portion of the subject property. As with the Proposed Action, future buildings associated with the Open Space Alternative would not exceed the maximum permitted height of 35 feet/2 stories[44].

Land Use Plans

The Open Space Alternative would be consistent with the *2005 Town of East Hampton Comprehensive Plan*, *Plan for Wainscott*, *East Hampton Hamlet Report Wainscott* and the *Runway Protect Zone for Runway 16-34 at the East Hampton Town Airport*.

As previously discussed, the 2005 Comprehensive Plan recommends revising commercial industrial uses, rezoning land for CI zoning district uses (specifically residential land), improving the appearance and functionality of the Business District and meeting the future commercial

[44] Unless appropriate relief is requested and approved.

needs in the Town. Thus, the Open Space Alternative would be consistent with the 2005 Comprehensive Plan as a result of the following:

- the Applicant would agree to prohibit by covenant, certain heavy industrial land uses;
- creation of 38 new CI zoned lots would eliminate the need to rezone residential land for CI permitted uses;
- subdivision of the subject property into 38 new CI Zoned lots and an open space parcel would greatly enhance the site's visual appearance; and
- subdivision of the subject property into 38 new CI Zoned parcels would provide additional opportunities for private service commercial, wholesale and warehouse businesses.

It should be noted that the Proposed Action would provide roadside buffer vegetation in accordance with the 2005 Comprehensive Plan while the Open Space Alternative would only provide buffer vegetation along Georgica Drive and a portion of Wainscott Northwest Road.

The Open Space Alternative would comply with the recommendations presented in the Plan for Wainscott as new stormwater managements systems would be installed to collect and recharge runoff on site and new Low Nitrogen Sanitary Systems will be installed at each lot to significantly reduce nitrogen in recharge. Additionally, future uses will utilize surface bio-retention areas for stormwater treatment and open space at the rear of each individual site. This will serve as an additional stormwater treatment method and will ensure water quality protection through design elements consistent with current and innovative green infrastructure technologies. These measures will protect groundwater quality and surface waters associated with Georgica Pond. The Open Space Alternative would conform to the CI zoning requirements, provide the minimum 10 percent open space as required by code would utilize an existing disturbed site historically used as a sand mine and for commercial use, thereby reducing commercial sprawl. Additionally, as noted above, the Open Space alternative would greatly enhance the site's visual appearance.

In general, the Open Space Alternative would conform to the Hamlet Report, as this alternative would provide a 7 acre open space parcel and would provide the Town with the opportunity to purchase the former Suffolk Cement parcel for whatever public needs the Town believes are necessary or to provide a suitable balance of uses for the site. Based on the layout of the Open Space Alternative, it is respectfully submitted that this alternative would be consistent with the general conceptual framework of the site provided on page 24 of the Hamlet Report, as new internal roadways will be established and sufficient parking areas at each lot will be provided as a result of the Proposed Action.

Any site plan or special permit review for future lots created by the Open Space Alternative would include compatibility review by the FAA, accordance with the Runway Protection Zone Draft Master Plan. The creation of lots through the Open Space Alternative would provide the Town with the opportunity to purchase newly created lots containing portions of Runway 16-34's RPZ (Lots 14 through 16 in this alternative plan).

5.4.5 Transportation/Traffic

Vehicular access to the site under the Open Space Alternative would be the same as the Proposed Action (four access driveways). Internal roadways would be similar to the Proposed Action, except for a cul-de-sac proposed at Wainscott Commercial Drive West for the Open Space Alternative, which would limit access to the open space parcel to Georgica Drive only.

In regard to vehicle trip generation, as indicated in Table 5-2, the Open Space Alternative would generate less traffic including 105 trips during the AM weekday peak, 109 trips during the PM weekday peak, and 45 trips during the Saturday midday peak. This compares to 300 during the AM weekday peak, 303 during the PM weekday peak, and 147, during the Saturday midday peak under the Proposed Action. Although this alternative would generate less traffic, the roadway improvements recommended for the Proposed Action would also be required for the Open Space Alternative as unsignalized operations along NYS Route 27 are at or near failure under existing conditions. The cause of this poor operation is the cumulative impact of the seasonal traffic on NYS Route 27, which must accommodate high traffic volumes with just one travel lane in each direction. Therefore, the roadway improvements presented in the TIS and Section 3.4.3 above would be required under the Open Space Alternative and would mitigate traffic generated by this alternative without requiring additional roadway improvements (see TIS in **Appendix H**). As a result, no significant adverse impacts to traffic are anticipated under the Open Space Alternative.

5.4.6 Advantages and Disadvantages

The Open Space Alternative would require less impervious surface area (37.97± acres or approximately 54 percent of the site for the Open Space Alternative compared to 47± acres (or approximately 67 percent site for the Proposed Action). The Open Space Alternative would result in slightly less potable water usage and slightly less sanitary wastewater generation (15,870± gpd compared to 16,016± for the Proposed Action) due the reduced density proposed in this alternative (38 lots compared to 50 lots). The Open Space Alternative would be consistent with the recommendations presented in the 2005 Town of East Hampton Comprehensive Plan, the Plan for Wainscott and the Hamlet Report, as this alternative would provide a 7 acre open space parcel and would provide the Town with the opportunity to purchase the former Suffolk Cement parcel for whatever public needs the Town believes are necessary or to provide a suitable balance of uses for the site. The Open Space Alternative would conform to the CI zoning requirements, provide the minimum 10 percent open space as required by code would utilize an existing disturbed site historically used as a sand mine and for commercial use, thereby reducing commercial sprawl. The Open Space alternative would also greatly enhance the site's visual appearance. This alternative would also generate less traffic compared to the Proposed Action.

Although Alternative 3 (the Open Space Alterative) would require less impervious surface area, under this alternative, less existing forested areas (i.e., pitch pine-oak forest) would be retained along the eastern and western property boundaries to accommodate the proposed 38 parcels. As such, the total disturbance of soils and site topography would be greater under the Open

Space Alternative. Approximately 3.7 acres of additional landscaping would be required to supplement forested area to be removed. As this alternative would provide approximately 4.5 acres less of forested area under the Proposed Action, it is anticipated that some avian species that current inhabit forested area would migrate elsewhere in the Town. Additionally, this open space parcel would require revegetation as most of the proposed open space parcel is former sand mine area and successional old field. The Open Space Alternative would increase stormwater runoff in terms of total volume due to an increase in impervious surfaces on-site including internal streets as well as the clearing of trees and other vegetation that absorb water and promote evapotranspiration, whereas the Proposed Action would retain pitch pine-oak forest along the eastern and western property boundaries to capture stormwater runoff throughout the entire site. Under this alternative, it is uncertain if the Town would purchase the Suffolk Cement parcel and how it would be developed. Finally, a greater amount of sand mine area would be retained under the Open Space Alternative (approximately 6 acres greater compared to the Proposed Action).

5.4.7 Conclusion

Although there are several advantages associated with Alternative 3 (the Open Space Alternative), there are a greater number of disadvantages compared to advantages associated with this alternative. Additionally, it is uncertain if the Town would purchase the Suffolk Cement parcel. Therefore, this parcel could remain vacant and underutilized if not purchased by the Town and the Applicant who continue to pay property tax on a vacant parcel. As such, this alternative is does not meet the objectives of the Applicant and will continue to result in adverse financial impacts to the Applicant.

5.5 Alternative 4: Hamlet Plan Alternative

The Hamlet Plan Alternative is derived from the “Conceptual Framework: Gravel Pit” illustration page 24 of the Wainscott Report and various recommendations for the subject property as part of the Master Plan for Wainscott’s Central Business District. While housing options are contemplated in the Master Plan for Wainscott’s Central Business District none are included in Alternative 4. This alternative layout proposes 14 acres of land along the western portion of the site to be purchased by the Town for a public park, 7 acres of open space immediately east of the parkland area, potential relocation of Suffolk Cement behind Southampton Masonry, acquisition of the 4.25± acre Suffolk Cement parcel by the Town and for potential use as shared parking for the Central Business District, a 2.17 acre parcel at the northeast corner of the subject property to potentially be purchased by the Town and utilized as train station parking, and the subdivision of the remainder of the property into 20 lots ranging in size from 0.92 acres to 1.54 acres. As such, this alternative assumes that the Town would purchase approximately 20 acres of land at the subject property to dedicate to parkland, open space and parking (see **Hamlet Plan** in **Appendix I**).

Table 5-3 compares anticipated conditions under the Proposed Action versus the Hamlet Plan Alternative.

TABLE 5-3
COMPARISON OF THE PROPOSED ACTION AND HAMLET PLAN ALTERNATIVE

Parameter	Hamlet Plan Alternative	Proposed Action
Land Use	Subdivision of subject property into 30 CI zoned lots: 26 CI zoned lots with commercial/ industrial businesses thereon, one 7± acre open space parcel, one 14± acre Town-owned park, one 2± acre parcel for train station parking, and the 4.14± acre Suffolk Cement parcel to potentially be purchased by the Town; includes Suffolk Cement and Southampton Masonry on one lot.	Subdivision of subject property into 50 CI zoned lots, with commercial/ industrial businesses, including Suffolk Cement and Southampton Masonry
Wastewater Treatment System	26 new I/A OWTS[2]	48 new I/A OWTS[1]
Site Coverages (acres):	**Hamlet Plan Alternative**	**Proposed Action**
Roads, Buildings and Other Paved or Impervious Surfaces	28.20±[3]	47.00±
Forest	4.47±[4]	7.60±
Meadows, grassland or brushland	16.53±[5]	0
Non-vegetated (bare rock, earth or fill)[6]	4.25±	3.80±
Landscaping	17.06±	12.11±
Total	**70.51±**	**70.51±**
Water Resources:	**Hamlet Plan Alternative**	**Proposed Action**
Domestic Water Use (gpd)	10,955±[8]	16,016± [7]
Total Sanitary Waste Generated (gpd)	10,955±[8]	16,016±[7]
Vehicle Trips Generated[9]:	**Hamlet Plan Alternative**	**Proposed Action**
Weekday AM Peak Hour (vph)	197[10]	300
Weekday PM Peak Hour (vph)	205[10]	303
Saturday Midday Peak Hour (vph)	84[10]	147
Miscellaneous:	**Hamlet Plan Alternative**	**Proposed Action**
Parking Required (spaces)	--[11]	--[11]
Parking Provided (spaces)	--[11]	--[11]
Solid Waste (Garbage) Generation	5,120±[13]	7,648±[12]

Key: gpd- gallons per day; vph-vehicles per hour
[1]Excludes Suffolk Cement and Southampton Masonry.
[2]Includes Suffolk Cement/Southampton Masonry parcel. Excludes Suffolk Cement parcel to potentially be purchased, 7 acre open space parcel, 14 acre Town park and 2 acre train station parcel.
[3]Includes 2.17 train station parcel to be potentially acquired by Town.

[4]Refers to forested area to be retained along the western boundary of the 14 acre Town park parcel.
[5]Refers to remaining land associated with the 7 acre open space parcel and 14 acre Town park.
[6]Refers to Suffolk Cement parcel to potentially be purchased by Town.
[7]Does not account for potential landscaped irrigation.
[8]Assumes a building coverage of 18.75% and a density load factor of 0.04 gpd per square foot for general industrial uses. Accounts for existing water usage and sanitary waste generation associated with Southampton Masonry and Suffolk Cement.
[9]ITE Trip Generation Manual, 9th Edition; See TIS provided in **Appendix H**.
[10]Does not include any traffic generation volumes for the train station, open space and Town park parcels as these are theoretical Town uses. See TIS provided in **Appendix H**.
[11]All future use will provide designated parking stalls in accordance with Town Code requirements (1 parking space per 180 GFA for office or office building, 1 parking space per 500 SF for manufacturing or industrial establishment. and 1 parking space per employee for warehouses).
[12]Based on a factor of 2 pounds per day per 100 SF of warehouse space for full buildout (potential building coverage of 18.75%) of the subject property and includes continuing operations at Southampton Masonry and Suffolk Cement.
[13]Assumes a building coverage of 18.75% at each of the 25 remaining parcels and includes continuing operations at Southampton Masonry and a solid waste factor of 2 pounds per day per 100 SF of warehouse space for operations of Suffolk Cement at Southampton Masonry lot.

5.5.1 Topography and Soils

Similar to the Proposed Action, the Hamlet Plan Alternative would require disturbance to existing soils and topography at the subject property. The impacts to soil and topography from implementation of this alternative would be similar to the Proposed Action as forested area and associated steep slopes would be retained along the western property boundary. However, forested area along the eastern property boundary would be removed in order to accommodate the Hamlet Plan subdivision. Similar to the Proposed Action, the Hamlet Plan Alternative would have an average site elevation of approximately 18 feet.

The primary differences between the Proposed Action and the Hamlet Plan Alternative is that the Hamlet Plan Alternative would require less impervious surface area (28.20± acres or approximately 40 percent of the site) compared to 47± acres (or approximately 67 percent site for the Proposed Action), but would retain less existing forested areas (i.e., pitch pine-oak forest) along the eastern and western property boundaries to accommodate the 20 CI zoned parcels for future small service commercial, wholesale and warehouse businesses under this alternative scenario. It should be noted that this Alternative does not account for potential impervious surface coverage at the Town park as there are no development plans proposed for such use at this time. Therefore, it is likely that the impervious surface area at the overall subject property would be greater than 28.20± acres.

As such, the total disturbance of soils and site topography would be greater under the Hamlet Plan Alternative. A greater amount of successional old field would be retained under the Hamlet Plan Alternative (approximately 16.53 acres greater compared to the Proposed Action). It should be noted that this alternative assumes that the Town park parcel would be entirely comprised of forested land and successional old field. However, it is likely that forested land and successional old field would be less than the acreage assumed in this DEIS.

A SWPPP will be prepared and will include details of the erosion controls to be employed during construction. The proposed dimensions, material specifications, and installation details for all erosion and sediment control practices will be subject to Town review and approval. The SWPPP will include practices consistent with the NYS Standards and Specifications for Erosion and Sediment Control. In addition, the Hamlet Plan Alternative would conform to the standards and specifications included in the New York State Stormwater Management Design Manual (as required by the Town Code), which provides criteria on minimizing erosion and sediment impacts from construction activity involving soil disturbance. Best management practices will be incorporated into the Final Erosion and Sediment Control Plans, to minimize potential adverse impacts related to erosion.

5.5.2 Water Resources

Water and Sewer

Given the setback to the nearest wetland (more than 350 feet from the site), construction activities associated with the Hamlet Plan will not occur within 100 feet of a NYSDEC Article 24 wetland jurisdiction area similar to the Proposed Action. Therefore, significant impacts on surface waters or wetlands from the Hamlet Plan Alternative would not be expected with proper mitigation. As shown in **Table 5-3**, the Hamlet Plan Alternative would result in less potable water usage (10,955± gpd compared to 16,016± for the Proposed Action), as well as less sanitary wastewater generation (10,955± ± gpd compared to 16,016± for the Proposed Action) due the reduced density proposed in this alternative (26 lots compared to 50 lots), Town park parcel and train station parcel. However, this does not factor in water usage for landscape irrigation. As with the Proposed Action, I/A OWTS will be installed on individual commercial sites on a lot-by-lot basis under the Hamlet Plan Alternative. Therefore, there would be no significant adverse impacts associated with water usage, sewage generation or the projected increase in water demands associated with the Hamlet Plan Alternative.

Stormwater

As a result of the proposed subdivision under the Hamlet Plan Alternative, infrastructure improvements (roads, recharge and individual site development) would be installed, including proper grading and drainage controls, which currently do not exist on the subject property. This alteration of drainage pattern and volume of runoff generated on the site will ensure that stormwater is contained and recharged to groundwater. The Hamlet Plan Alternative would increase stormwater runoff in terms of total volume due to an increase in impervious surfaces on-site including internal streets as well as the clearing of trees and other vegetation that absorb water and promote evapotranspiration on the currently vacant property. While the Hamlet Plan Alternative retains 7 acres of open space and provides a 14 acre Town park, this area would be dedicated to western portion of the site and would primarily consist of successional old field with limited pitch pine-oak forest, whereas the Proposed Action would retain pitch pine-oak forest along the eastern and western property boundaries to capture stormwater runoff throughout the entire site.

As with the Proposed Action, future uses will utilize surface bio-retention areas for stormwater treatment and open space at the rear of each individual site. This will serve as an additional stormwater treatment method and to ensure water quality protection through design elements consistent with current and innovative green infrastructure technologies.

Under the Hamlet Plan Alternative, Suffolk Cement would be relocated behind Southampton Masonry and the 4.25± acre parcel could potentially be purchased by the Town. However, under this alternative, it is uncertain how this parcel would be developed and if bio-retention areas with native plantings would be incorporated thereon. Additionally, the northeasternmost parcel created from the Hamlet Plan subdivision could potentially be purchased by the Town for train station parking; however, it is uncertain if this purchase would occur and if stormwater management system would be installed thereon.

Both development scenarios would require stormwater catch basins and leaching pools to recharge runoff from the subdivision road planned for the site, which would be designed in accordance with the Town of East Hampton's stormwater management regulations and would comply with the standards and specifications included in the New York State Stormwater Management Design Manual. A SWPPP would be prepared in accordance with the requirements for the General Permit for Stormwater Discharges from Construction Activity and Chapter 216 of the Town Code.

Erosion and sedimentation controls will also be put into place during site clearing, grading, and construction, thereby retaining sediment on the property and keeping it from being transported and deposited into street drainage systems or on to adjacent properties. Erosion control measures will be installed and maintained in accordance with the NYS Standards Specifications for Erosion and Sediment Control and Chapter 216 of the Town Code. BMPs will also be utilized in the Final Erosion and Sediment Control Plan. Dust controls and staging of water trucks to wet soils will also be employed as needed. Silt fencing would be installed around the limits of disturbance, and as necessary, and would be maintained throughout construction activities.

5.5.3 Ecology

As noted above, the Hamlet Plan Alternative would reduce the amount of pitch pine-oak forest area compared to the Proposed Action by approximately 3 acres. Therefore, there will be less potential forest habitat for local birds and mammals under the Hamlet Plan Alternative. However, particular avian species of wildlife would migrate to the Town park and open space parcel as result of development, which would consist of both forested areas and successional old field. As with the Proposed Action, raingardens would be installed at each of the 26 lots consisting of native plant species that would provide food and shelter to wildlife, potentially providing a more suitable habitat for local wildlife than the current and former sand mine. Therefore, avian species that currently inhabit forested area to be removed under the Hamlet Plan Alternative would relocate throughout the open space parcel, Town park and raingardens at each lot. Additionally, upon subdivision approval, the Applicant will stabilize the site with installation of meadow mix as part of the installation of the road system, until the development

of individual lots occurs through site plan review. As such, no significant adverse impacts on the quality of these wildlife and vegetation are anticipated under the Hamlet Plan alternative.

5.5.4 Parks, Open Space and Recreation

In accordance with the East Hampton Hamlet Report, Wainscott, both a Town park and open space would be designated at the subject property, which would total 21 acres of the overall 70.51± acre subject property (or approximately 30 percent of the subject property). This alternative also provides the Town to purchase the former Suffolk Cement parcel subsequent to the relocation of this use behind Southampton Masonry. As such, the Town could convert the 4.25± acre parcel into additional open space or for recreational purposes, which would be available to the community for use and enjoyment. Therefore, under the Hamlet Plan Alternative, parks, open space and recreational areas would be created, in accordance with the Hamlet Report.

5.5.5 Land Use, Zoning and Plans

The Hamlet Plan Alternative would be consistent with the *2005 Town of East Hampton Comprehensive Plan*, *Plan for Wainscott*, *East Hampton Hamlet Report Wainscott* and the *Runway Protect Zone for Runway 16-34 at the East Hampton Town Airport*.

As previously discussed, the 2005 Comprehensive Plan recommends revising commercial industrial uses, rezoning land for CI zoning district uses (specifically residential land), improving the appearance and functionality of the Business District and meeting future commercial needs in the Town. Thus, the Hamlet Plan Alternative would be consistent with the 2005 Comprehensive Plan as a result of the following:

- the Applicant would agree to prohibit by covenant, certain heavy industrial land uses;
- creation of 26 new CI zoned lots would eliminate the need to rezone residential land for CI permitted uses;
- creation of a Town park along the western property boundary will provide a vegetated buffer between internal operations at the subject property, Wainscott Northwest Road and the residential neighborhoods to the west of the subject property;
- subdivision of the subject property into 26 new CI Zoned lots and an open space parcel would greatly enhance the site's visual appearance; and
- subdivision of the subject property into 26 new CI Zoned parcels would provide additional opportunities for private service commercial, wholesale and warehouse businesses.

The Hamlet Plan Alternative would comply with the recommendations presented in the Plan for Wainscott as new stormwater managements systems would be installed to collect and recharge runoff on site and new Low Nitrogen Sanitary Systems will be installed at each lot to significantly reduce nitrogen in recharge. Additionally, future uses will utilize surface bio-retention areas for stormwater treatment and open space at the rear of each individual site. This will serve as an additional stormwater treatment method and will ensure water quality

protection through design elements consistent with current and innovative green infrastructure technologies. Furthermore, 21 acres of open space and parkland would be established, and existing forested area and successional old field would be retained to contain and recharge stormwater on-site. These measures will protect groundwater quality and surface waters associated with Georgica Pond. The Hamlet Plan Alternative would conform to the CI zoning requirements and would utilize an existing disturbed site historically used as a sand mine and for commercial use, thereby reducing commercial sprawl. Additionally, as noted above, the Hamlet Plan alternative would greatly enhance the site's visual appearance.

The Hamlet Plan Alternative plan is based on recommendations and the Conceptual Framework graphic on page 24 of the Hamlet Report. Specifically, the Hamlet Plan Alternative would provide 14 acres of Town park, 7 acres of open space, a 2.17 acre parcel on the northeastern portion of the site for a potential train station and the option for the Town to purchase the former Suffolk Cement property for additional open space or recreation. Based on the layout of the Hamlet Plan Alternative, this alternative would be consistent with Hamlet Report.

Any site plan or special permit review for future lots created by the Hamlet Plan Alternative would include compatibility review by the FAA, accordance with the Runway Protection Zone Draft Master Plan. The creation of lots through the Hamlet Plan Alternative would provide the Town with the opportunity to purchase newly created lots containing portions of Runway 16-34's RPZ (Lots 22 through 24 in this alternative plan).

5.5.6 Transportation/Traffic and Parking

Vehicular access to the site under the Hamlet Plan Alternative would differ from the Proposed Action as the Town park and open space parcels would remove site access along Georgica Drive (Georgica Drive extension within the subject property would be removed). As such, three access driveways would be provided under this alternative compared to the four access drives under the Proposed Action. Internal roadways would also differ from the Proposed Action, as the only one north-south internal roadway would be provided under the Hamlet Plan Alternative compared to the two north-south internal roadways under the Proposed Action. However, as the density is reduced under the Hamlet Plan (26 lots compared to 50 lots), it is anticipated that site generated traffic will be distributed appropriately.

With regard to vehicle trip generation, as indicated in **Table 5-3**, the Hamlet Plan Alternative would generate less traffic including 197 trips during the AM weekday peak, 205 trips during the PM weekday peak, and 84 trips during the Saturday midday peak. This compares to 300 during the AM weekday peak, 303 during the PM weekday peak, and 147, during the Saturday midday peak under the Proposed Action. [Although this alternative would generate less traffic, the roadway improvements recommended for the Proposed Action would also be required for the Hamlet Plan Alternative as unsignalized operations along NYS Route 27 are at or near failure under existing conditions. The cause of this poor operation is the cumulative impact of the seasonal traffic on NYS Route 27, which must accommodate high traffic volumes with just one travel lane in each direction. Therefore, the roadway improvements presented in the TIS would be required under the Hamlet Plan Alternative and would mitigate traffic generated by this

alternative (see TIS in **Appendix H**). As a result, no significant adverse impacts to traffic are anticipated under the Hamlet Alternative].

5.5.7 Advantages and Disadvantages

The Hamlet Plan Alternative plan is based on recommendations and the Conceptual Framework of the Hamlet Report such that this alternative would provide 14 acres of Town park, 7 acres of open space, a 2.17 acre parcel on the northeastern portion of the site for a potential train station and the option for the Town to purchase the former Suffolk Cement property for additional open space or recreation. The Hamlet Plan Alternative would require less impervious surface area (28.20± acres or approximately 40 percent of the site) compared to 47± acres (or approximately 67 percent site for the Proposed Action). A greater amount of successional old field would be retained under the Hamlet Plan Alternative (approximately 16.53 acres greater compared to the Proposed Action). It should be noted that this alternative assumes that the Town park parcel would be entirely comprised of forested land and successional old field. However, it is likely that forested land and successional old field would be less than the acreage assumed in this DEIS. The Hamlet Plan Alternative would result in less potable water usage and less sanitary wastewater generation (10,955± ± gpd compared to 16,016± for the Proposed Action) due the reduced density proposed in this alternative (26 lots compared to 50 lots), Town park parcel and train station parcel. This alternative provides the Town to purchase the former Suffolk Cement parcel subsequent to the relocation of this use behind Southampton Masonry. As such, the Town could convert the 4.25± acre parcel into additional open space or for recreational purposes in addition to the proposed Town Park, which would be available to the community for use and enjoyment. Therefore, under the Hamlet Plan Alternative, parks, open space and recreational areas would be created, in accordance with the Hamlet Report. Furthermore, the Hamlet Plan Alternative would generate less traffic as compared to the Proposed Action.

As a result of Alternative 4, forested area along the eastern property boundary would be removed in order to accommodate the 20 CI Zoned parcel subdivision under this alternative scenario such that less pitch pine-oak forest along the eastern and western property boundaries would be retained compared to the Proposed Action. It should be noted that this Alternative does not account for potential impervious surface coverage at the Town park as there are no development plans proposed for such use at this time. Therefore, it is likely that the impervious surface area at the overall subject property would be greater than 28.20± acres. The total disturbance of soils and site topography would also be greater under the Hamlet Plan Alternative. This alternative assumes that the Town would purchase approximately 20 acres of land at the subject property to dedicate to parkland, open space and parking. However, if the Town is unable to purchase these parcels, 20 acres of land under this alterative would remain vacant and underutilized and would be overly burdensome on the Applicant.

5.5.8 Conclusion

Although the Hamlet Plan Alternative would provide more opportunities for open space, parks and recreational areas, this alternative heavily relies on the Town to purchase 20 acres of land

at the subject property. However, if the Town is unable or unwilling to purchase this land, the parcels depicted in these alternatives would remain vacant and underutilized. Therefore, Alternative 4, the Hamlet Plan Alternative, is inconsistent with the Applicant's right to pursue development of the vacant land at the subject property, does not meet the objectives of the Applicant and will continue to result in adverse financial impacts to the Applicant if the Town is unable or unwilling to purchase 20 acres of land for recreation/open space/parks and other municipal purposes.

5.6 Summary and Conclusions

In summary, the Proposed Action will allow the most productive uses at the subject property and will provide the greatest fiscal and economic benefits to support the Town's dominant and expanding construction, tourism, and second homeowner's driven economy. The proposed project will provide 50 CI lots to accommodate the current and future economic needs of the Town by creating small undeveloped CI zoned parcels for existing and additional service commercial, wholesale and warehouse businesses.

The Proposed Action requires more potable water when compared to the aforementioned alternatives; however, the Applicant will continue to consult with the SCWA as each individual lot is developed. Water demand for each use will also be determined on a lot-by-lot basis during the site plan review process. Additionally, the Proposed Action will generate a greater volume of wastewater that must be treated and disposed compared to the alternatives discussed above; however, it is proposed that I/A OWTS be installed per Article 19 of the Suffolk County Sanitary Code, in conformance with the Town Code's Low Nitrogen Sanitary System requirements. The use of I/A OWTS/Low Nitrogen Sanitary System technologies at the subject property will reduce total nitrogen in treated effluent to less than 19 mg/l and possibly lower as many existing approved systems are resulting in total nitrogen in effluent of well under the standard. In addition, since buildout of the site will occur over years or decades, I/A OWTS technologies are expected to improve to treat below the current required 19 mg/l, and/or the standard may be changed/reduced.

Under the Proposed Action, 7.61± acres of existing vegetation will be retained along the eastern and western property lines to screen the future uses at the site from adjacent residential neighborhoods. While some forested area would be retained under the Open Space Alternative and the Hamlet Plan Alternative, existing perimeter buffers would not be retained in order to accommodate varying size lots while effectively providing open space, a Town park and land for the Town to purchase. Additionally, under the Open Space Alternative, the steep slopes and forested land along the eastern and western property boundaries would not be retained and under the Hamlet Plan Alternative the steep slopes and forested land along the eastern property boundary would not be retained.

Both the Open Space Alternative and the Hamlet Plan Alternative provide opportunities for the Town to purchase significant portions of land at the subject property for public needs. However, if the Town is unable or unwilling to purchase this land, the parcels depicted in these alternatives would remain vacant and underutilized. Subdividing the subject property into 50

commercial lots to be developed over time would remove the uncertainty regarding the site's future and would greatly enhance the site's visual appearance. Redevelopment of the site would also provide the Applicant the incentive and path forward to modernize and upgrade certain existing activities at the subject property.

From a land use and zoning standpoint, redevelopment of the site under the Proposed Action will provide the Applicant the ability to market individual sites for development in conformance with zoning and subject to the voluntary prohibition of certain more intense uses that would otherwise be allowed as permitted or specially permitted uses at the subject property under the No Action Alternative (see Section 5.2 above). It is expected that the majority of the future uses at the subject property under the Proposed Action will consist of small service commercial, wholesale and warehouse business (e.g., lumber and building products, storage yards and building supplies distributions). Actual uses to occupy the site will be based on demand and market conditions.

Therefore, the Proposed Action contemplated in this DEIS is the most reasonable and practical option development proposal for the subject property, based on the project sponsor's objectives and capabilities.

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FIGURES

NPV

FIGURE 1-1
LOCATION MAP

Source: ESRI Web Mapping Service, Suffolk County GIS Data
Scale: 1 inch = 1,000 feet

N

Wainscott Commercial Center

DEIS

NPV

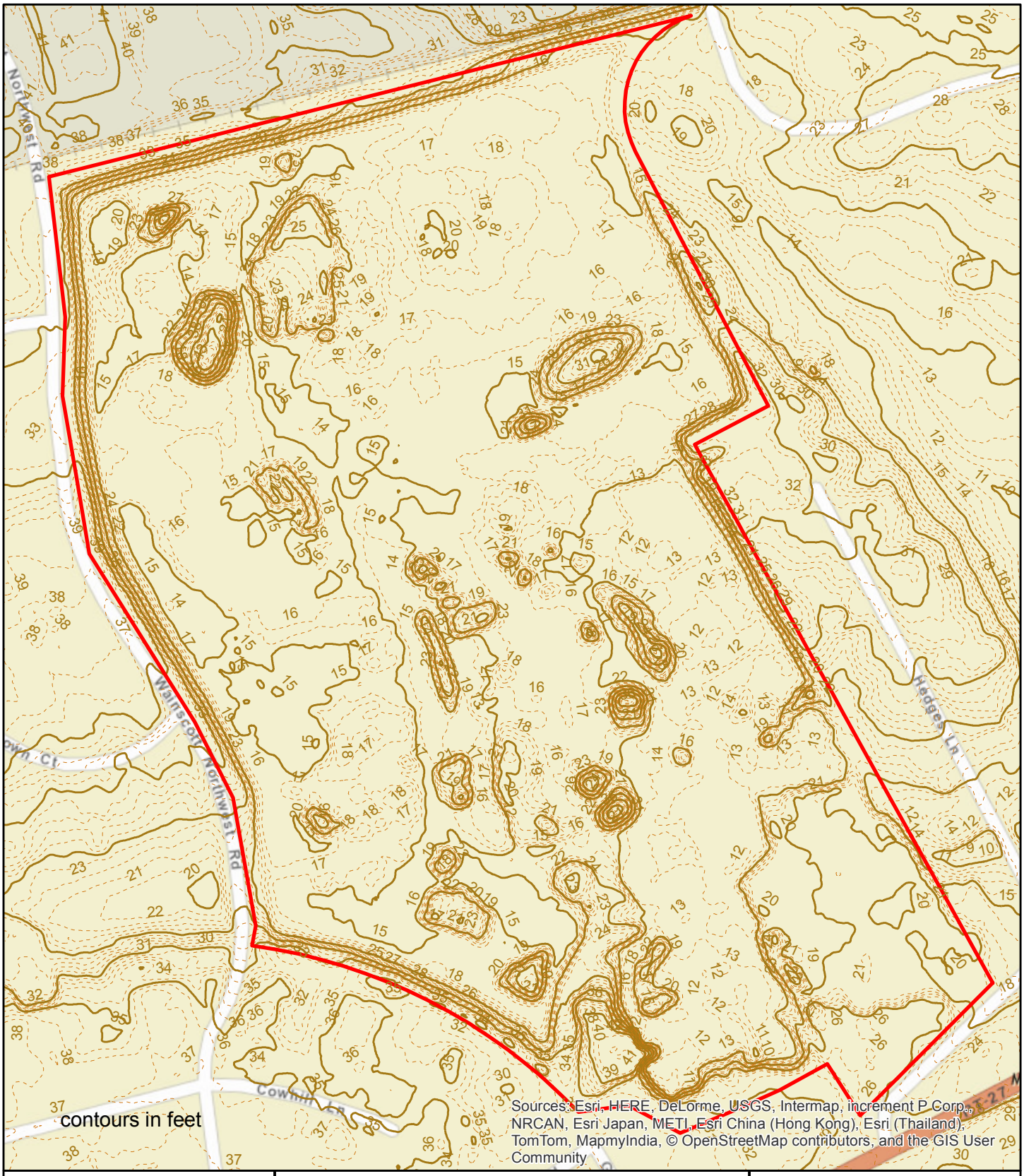
FIGURE 1-2
AERIAL MAP

Source: NYS Orthoimagery, 2016; Suffolk County GIS Data
Scale: 1 inch = 600 feet

N

Wainscott Commercial Center

DEIS



NPV

FIGURE 2-1
TOPOGRAPHIC MAP

Source: ESRI Web Mapping Services; Topo from FEMA Lidar, 2006
Scale: 1 inch = 300 feet

N

Wainscott Commercial Center

DEIS

NPV

FIGURE 2-2
MONITORING WELL LOCATIONS

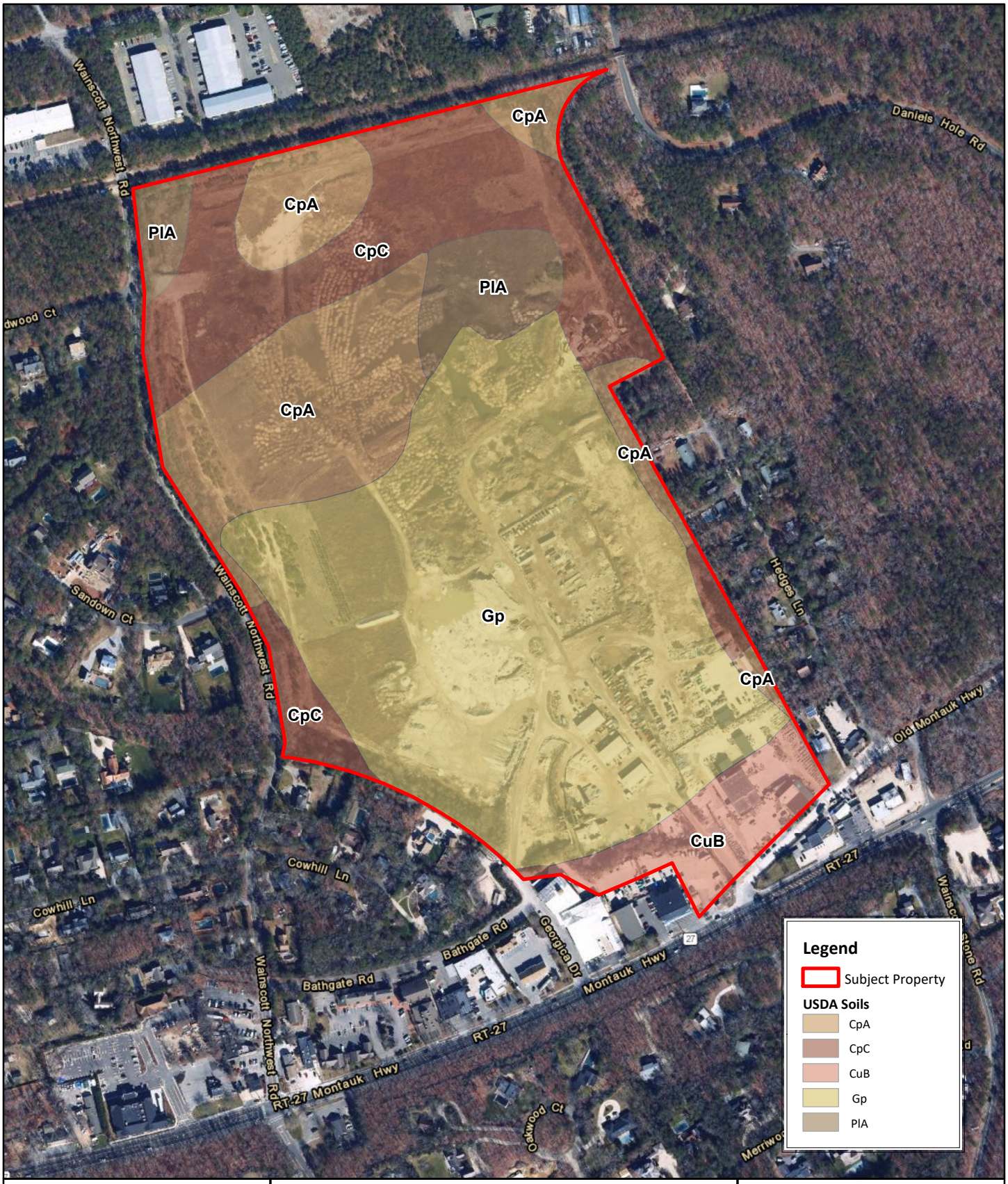
Source: NYS Orthoimagery, 2016; Monitoring well locations based on Alpha Geoscience data

Scale: 1 inch = 400 feet

N

Wainscott Commercial Center

DEIS



NPV

FIGURE 2-3
SOIL MAP

Source: NYS Orthoimagery, 2016; USDA NRCS Soil Survey Geographic Database
Scale: 1 inch = 400 feet

N

Wainscott Commercial Center

DEIS

NPV

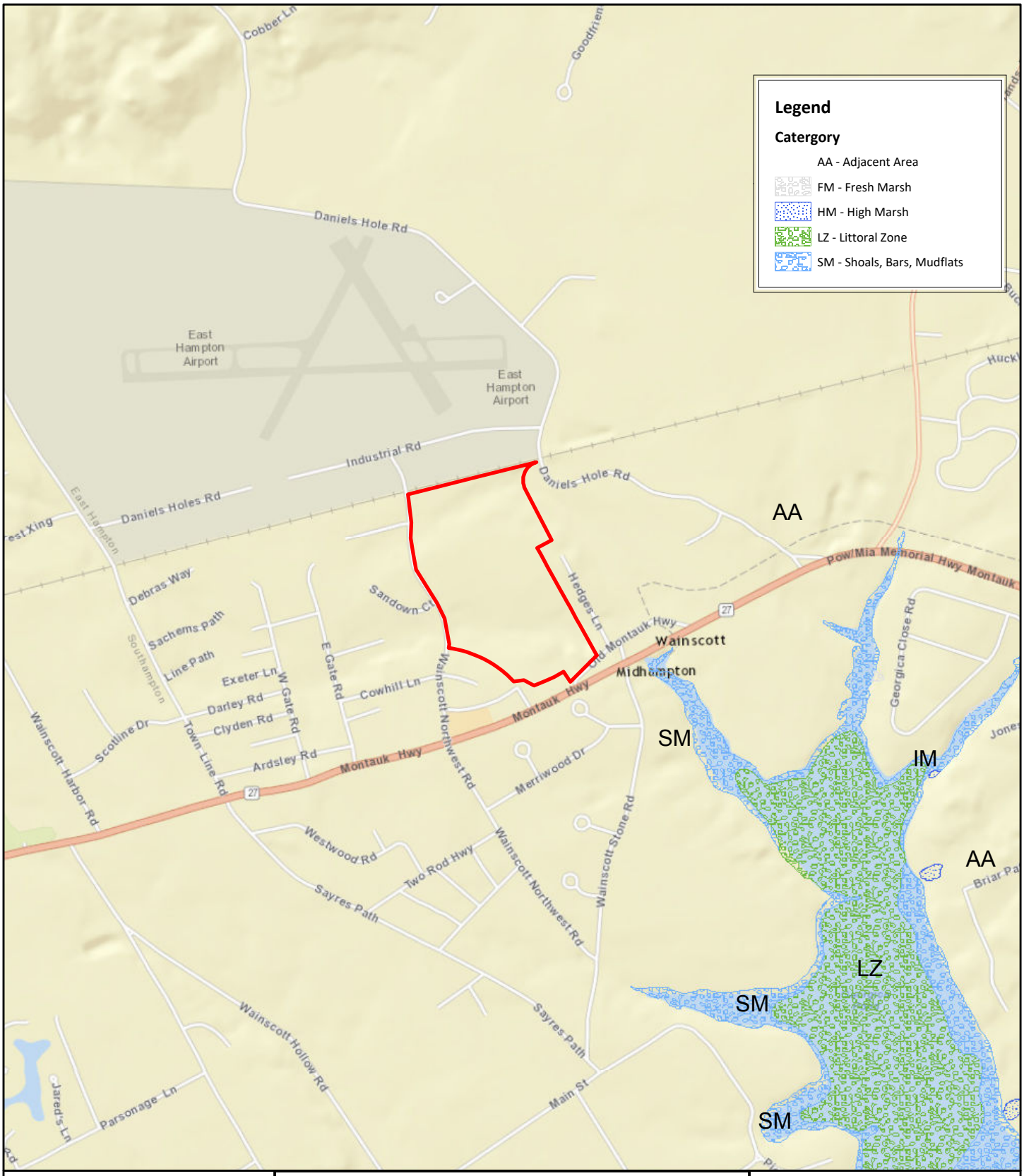
FIGURE 2-4
SOIL BORINGS

Source: NYS Orthophotography, 2016
Scale: 1 inch = 400 feet

N

Wainscott Commercial Center

DEIS



NPV

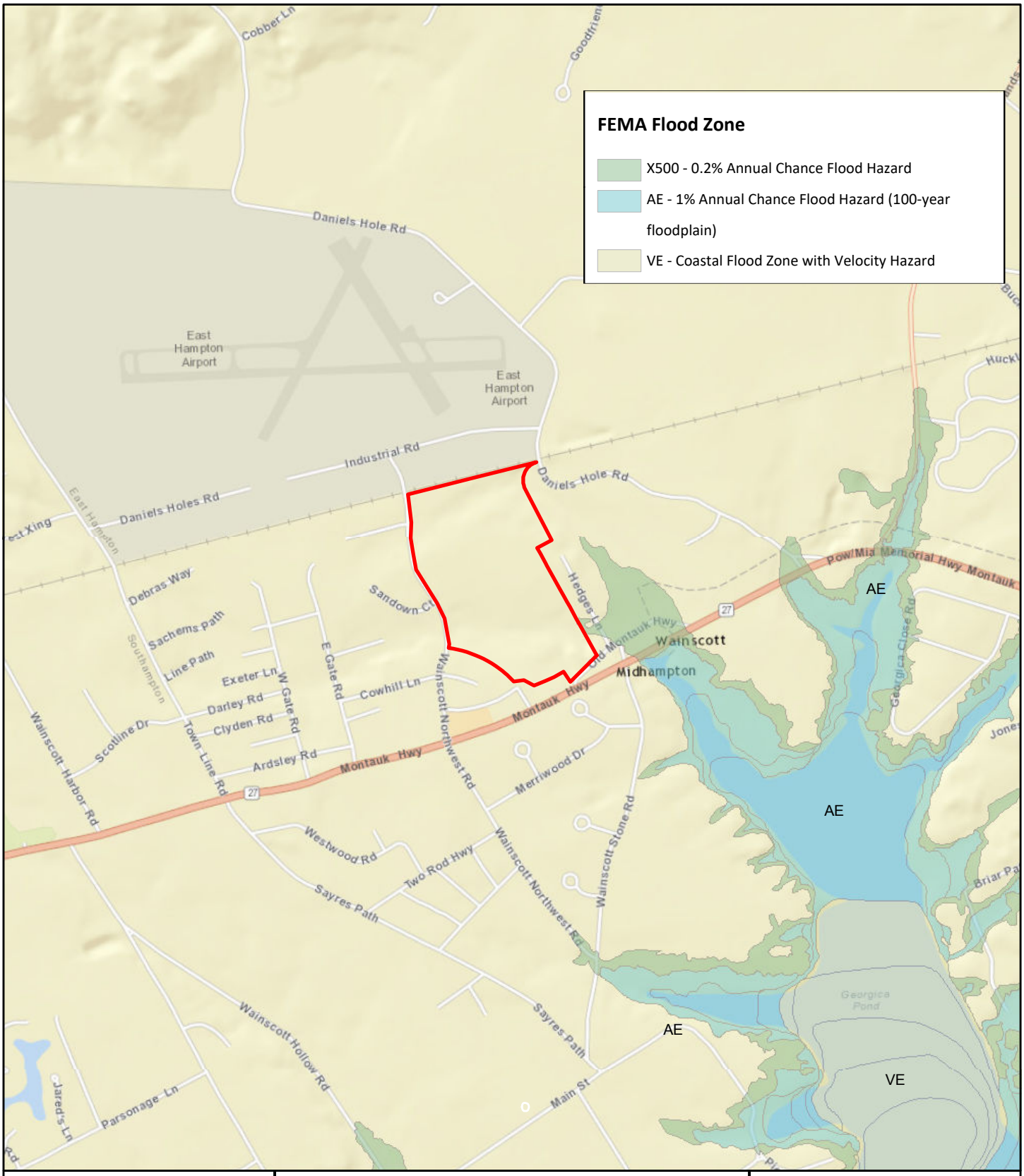
FIGURE 2-5
NYSDEC WETLANDS MAP

Source: ESRI Web Mapping Service, NYSDEC Freshwater Wetlands Maps
Scale: 1 inch = 1,500 feet

N

Wainscott Commercial Center

DEIS



NPV

FIGURE 2-6
FEMA FLOOD MAP

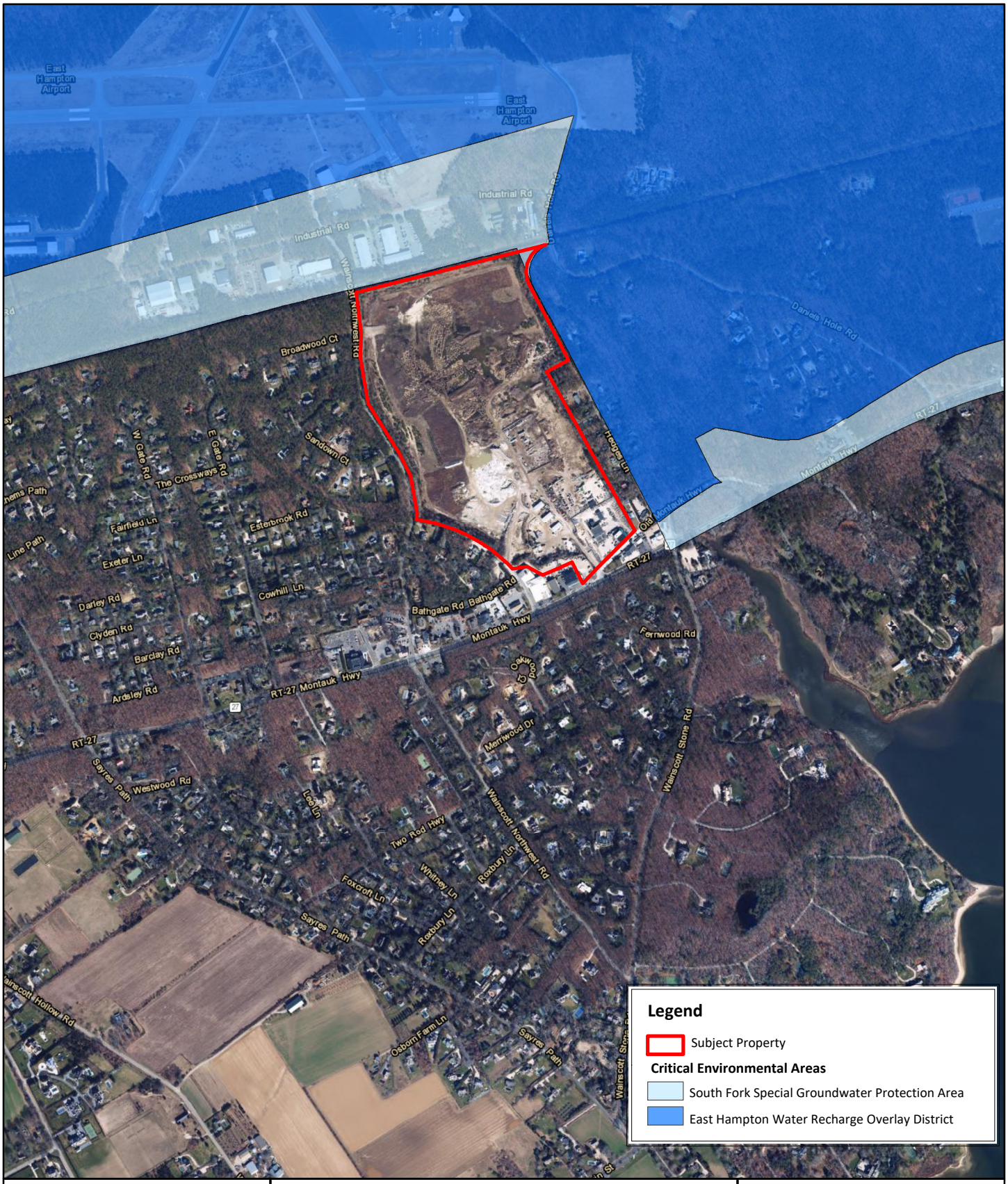
Source: ESRI Web Mapping Service, FEMA

Scale: 1 inch = 1,500 feet

N

Wainscott Commercial Center

DEIS



NPV

FIGURE 2-7
CRITICAL ENVIRONMENTAL AREAS

Source: NYS Orthoimagery, 2016; NYSDEC, May 2020
Scale: 1 inch = 1,000 feet

N

Wainscott Commercial Center

DEIS

NPV

FIGURE 2-8
WATER TABLE CONTOURS

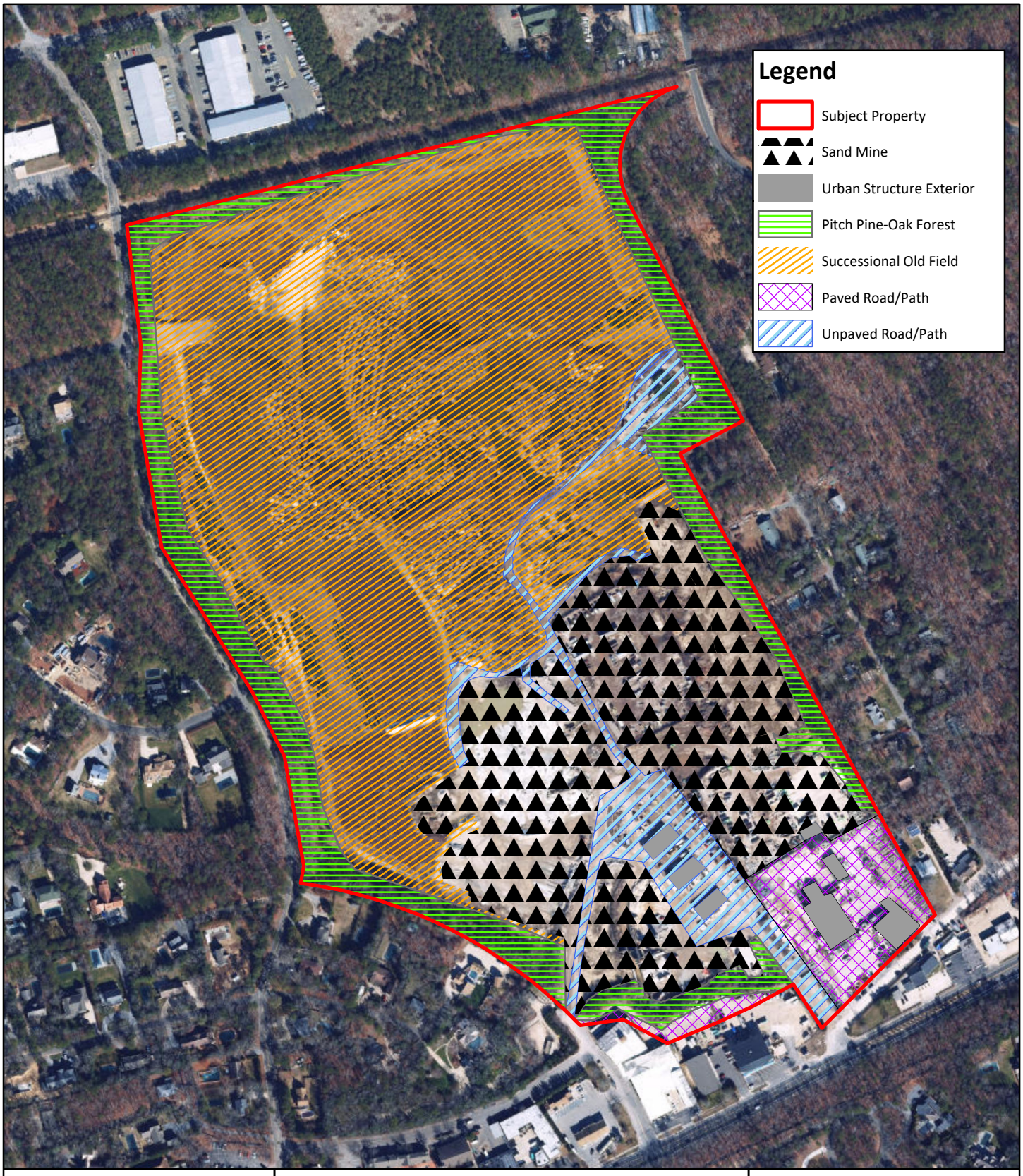
Source: ESRI Web Mapping Service; USGS 2016 data

Scale: 1 inch = 1,000 feet

N

Wainscott Commercial Center

DEIS



NPV

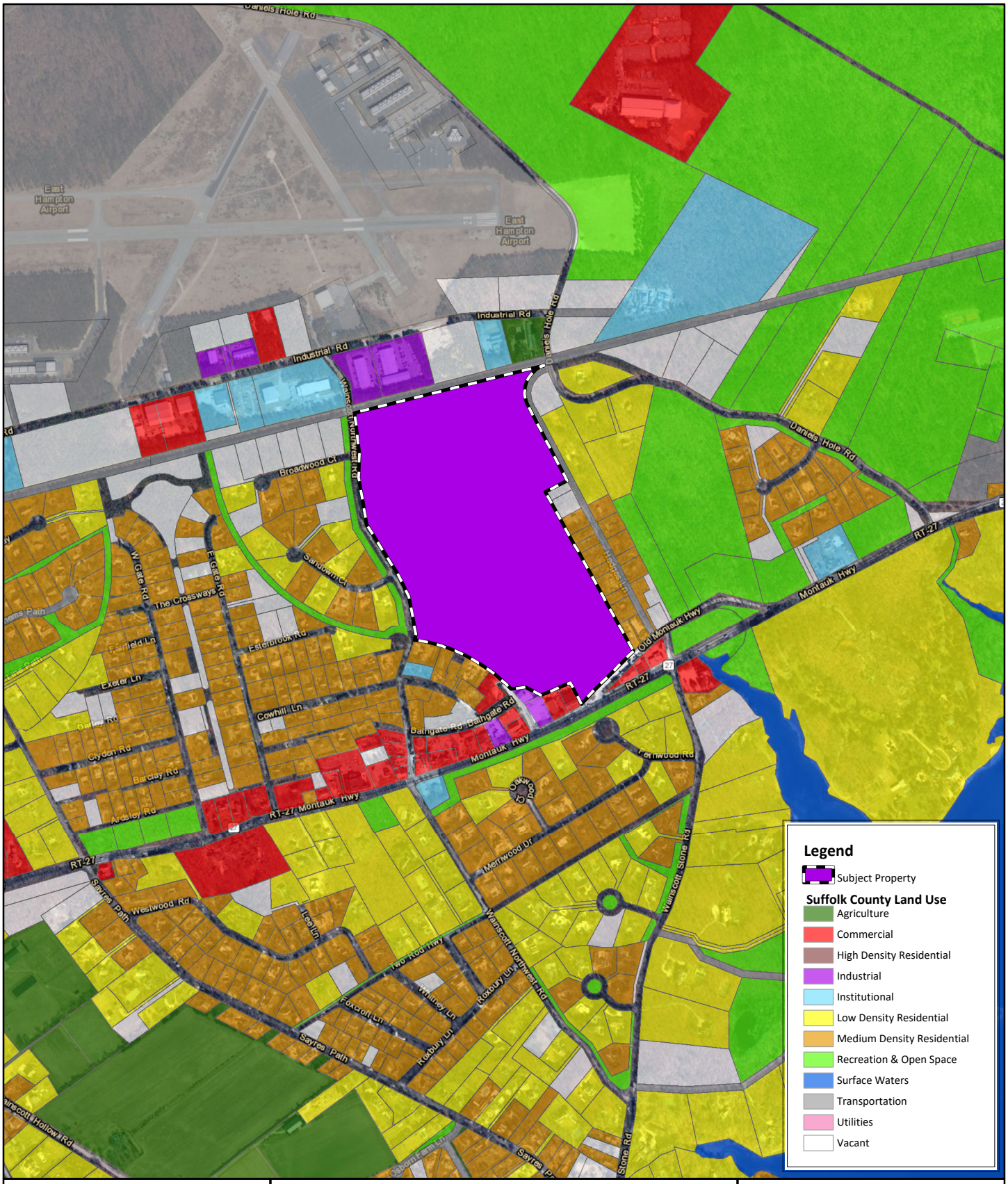
FIGURE 2-9
HABITAT MAP

Source: NYS Orthophotography, 2016; Coverage types based on field investigations performed by NPV's Environmental Scientist on December 19, 2018 and August 1, 2019.
Scale: 1 inch = 350 feet

N

Wainscott Commercial Center

DEIS



NPV

FIGURE 3-1
EXISTING LAND USE

Source: NYS Orthoimagery, 2016; Suffolk County Land Use data, 2016
Scale: 1 inch = 1,000 feet

N

Wainscott Commercial Center

DEIS

NPV

FIGURE 3-2
ZONING MAP

Source: ESRI Web Mapping Services; Town of East Hampton, 2014
Scale: 1 inch = 650 feet

N

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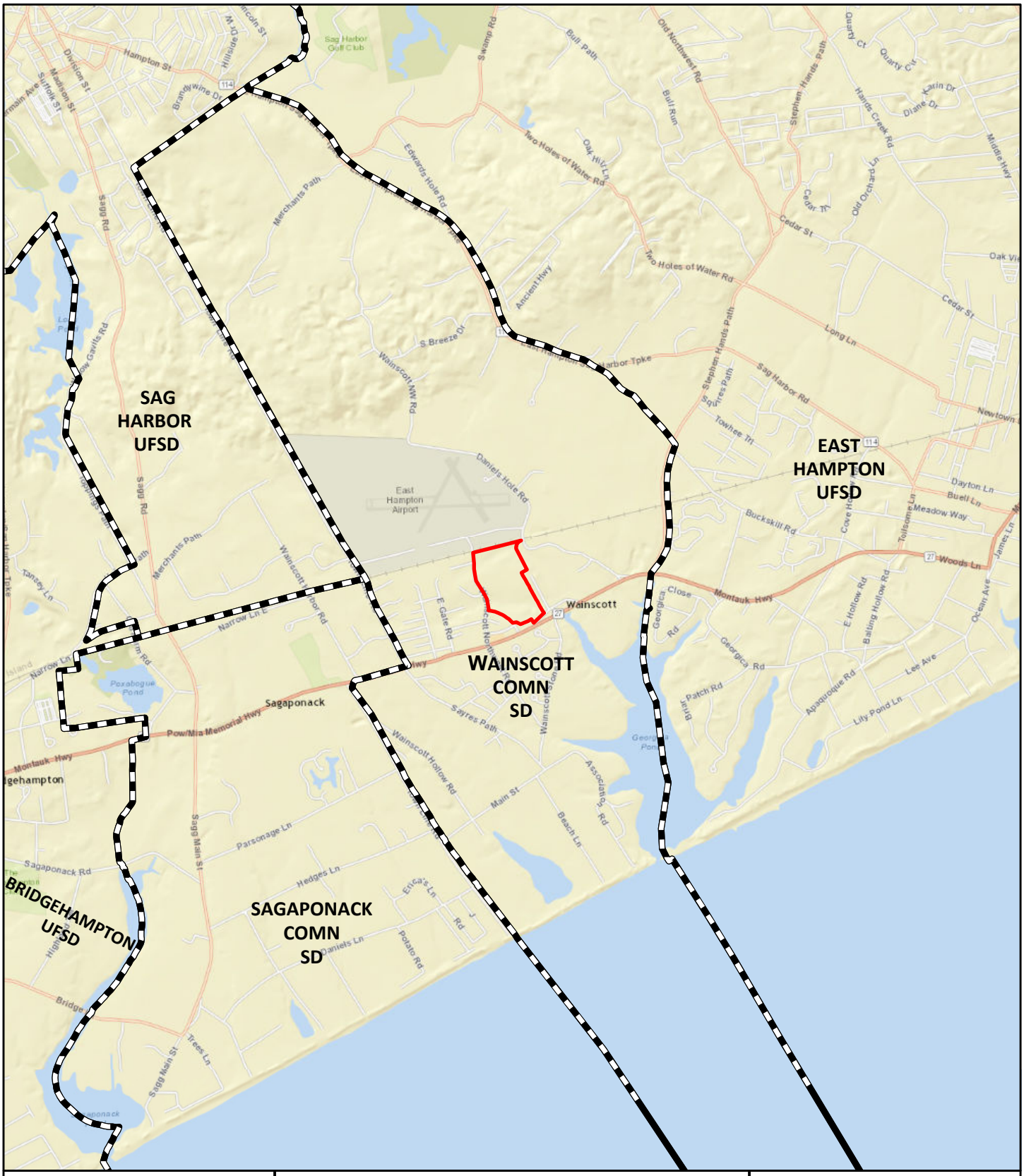
DEIS



NPV

FIGURE 3-3
COMMUNITY SERVICES SCHOOL DISTRICTS

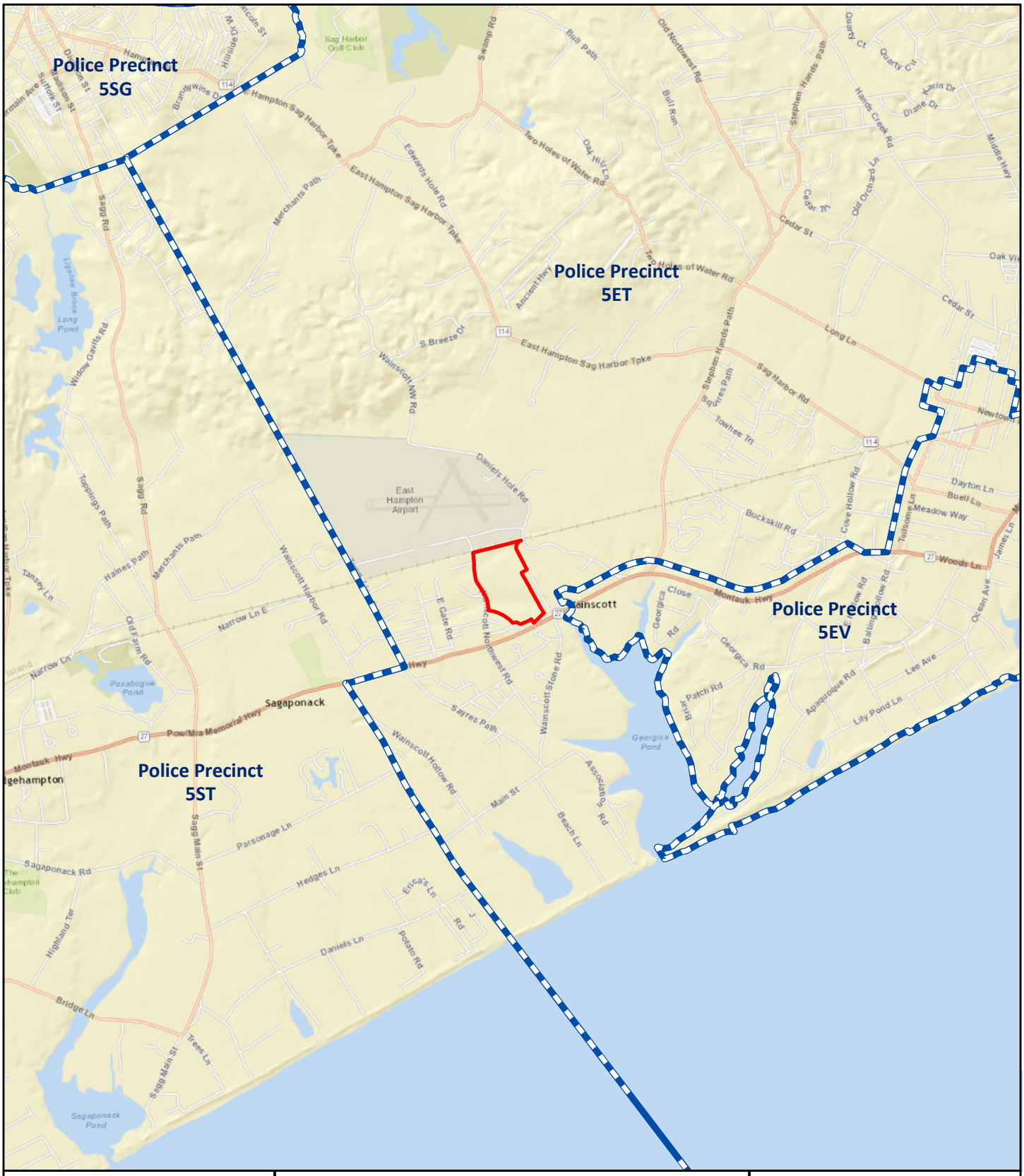
Source: ESRI Web Mapping Service, Suffolk County data

Scale: 1 inch = 4,000 feet

N

Wainscott Commercial Center

DEIS



NPV

FIGURE 3-4
COMMUNITY SERVICES
POLICE DISTRICTS

Source: ESRI Web Mapping Services, Suffolk County data

Scale: 1 inch = 4,000 feet

N

Wainscott Commercial Center

DEIS

APPENDIX A-1

POSITIVE DECLARATION
ENVIRONMENTAL ASSESSMENT FORM PARTS II AND III

TOWN OF EAST HAMPTON

300 Pantigo Place – Suite 105
East Hampton, New York 11937-2684

Planning Department
Marguerite Wolffsohn
Director

Telephone (631) 324-2178
Fax (631) 324-1476

September 5, 2018

TO: Planning Board

FROM: Eric Schantz
Senior Planner

RE: Wainscott Commercial Center - Preliminary Subdivision
SCTM# 300-192-2-6.2 to 6.7

Last Review Date: June 13, 2018

Items and Date Received: N/A

Background Information Preliminary Subdivision application has been made to subdivide a roughly 70 acre parcel into 50 lots with most lots ~1 acre in size and the southernmost lots (#21 & #22) to be ~4.5 acres in size and contain an existing ready-mix concrete plant and to be ~6.5 acres in size and contain an existing masonry and tile supply yard, respectively. The property is identified as 100% cleared and has been used for various commercial/industrial activities for many decades. It largely consists of a fallow, reclaimed sand pit, with existing industrial activities in its southern portions.

The property consists of multiple independent tax map parcels, all zoned CI: Commercial Industrial. It is situated in Wainscott and is surrounded by an assortment of commercial, industrial, and residential uses.

Issues for Discussion:

SEQRA
The Planning Department has prepared the attached EAF Part II & III. The Department feels that there is a potential for significant adverse environmental impacts as a result of the proposed project. A positive declaration pursuant to SEQRA and Chapter 128 of the Town Code is therefore recommended. Provided the Board agrees then a draft scope which addresses the potential adverse impacts noted in the EAF PART II & III should be submitted for review so that the applicants can prepare a Draft Environmental Impact Statement (DEIS).

ES

Planning Board Consensus

Positive declaration?

Additional comments: _____

_____

_____

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Agency Use Only [If applicable]	
Project :	Wainscott Commercial Center
Date :	09/12/18

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes**" to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No**" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1) ☐ NO ☑ YES
If "Yes", answer questions a - j. If "No", move on to Section 2.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☑	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☑	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☑	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☑	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☐	☑
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☑	☐
h. Other impacts: _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☐ NO ☑ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☑	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☑	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☑	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☑	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☑	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☑	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☑	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☑	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☑
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☑	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☑

l. Other impacts: _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) ☐NO ☑YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☑
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: Suffolk County Water Authority letter dated 08/13/18	D2c	☐	☑
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☑	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☑	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☑
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☑
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☑	☐
h. Other impacts: _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) ☑NO ☐YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☐	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☐	☐

g. Other impacts: _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D,2,h, D.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☑ NO ☐ YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)

☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☐	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	 ☐ ☐	 ☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	 ☐ ☐	 ☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☐	☐
g. Other impacts: _____		☐	☐

10. Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)

☑ NO ☐ YES

If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E3e	☐	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☐	☐

d. Other impacts: _____		☐	☐
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☑	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☐	☑
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☐	☑
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☑	☐
e. Other impacts: _____		☐	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
c. Other impacts: _____		☐	☐

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems. ☐ NO ☑ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☑
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☑	☐
c. The proposed action will degrade existing transit access.	D2j	☑	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☑	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☑
f. Other impacts: _____		☐	☐

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy. ☑ NO ☐ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☐
e. Other Impacts: _____			

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting. ☑ NO ☐ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☐	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☐
f. Other impacts: _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☐ NO ☑ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☑	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☑	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☑
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☑	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☑	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☑
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☑	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☑	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☑	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☑	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☑	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☑	☐
m. Other impacts: _____		☐	☐

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☐ NO ☑ YES

(See Part 1. C.1, C.2. and C.3.)

If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☑	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☑	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☑
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☑	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	☐	☑
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☑
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☑
h. Other: _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☑ NO ☐ YES

(See Part 1. C.2, C.3, D.2, E.3)

If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____		☐	☐

PRINT FULL FORM

Agency Use Only [IfApplicable]

Project: Wainscott Commercial Center

Date: 09/05/18

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts and Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

See attached

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☑ Type 1 ☐ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the East Hampton Town Planning Board as lead agency that:

☐ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.d).

☑ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Wainscott Commercial Center Preliminary Subdivision

Name of Lead Agency: East Hampton Town Planning Board

Name of Responsible Officer in Lead Agency: Joseph B. Potter

Title of Responsible Officer: East Hampton Town Planning Board Chairman

Signature of Responsible Officer in Lead Agency: Date:

Signature of Preparer (if different from Responsible Officer) Eric Schantz Digitally signed by Eric Schantz DN: cn=Eric Schantz, o, ou, email=eschantz@ehamptonny.gov, c=US Date: 2018.09.05 10:24:31 -04'00' Date: 09/05/18

For Further Information:

Contact Person: Eric Schantz

Address: 300 Pantigo Place, Suite 105

Telephone Number: (631) 324-2178

E-mail: eschantz@ehamptonny.gov

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

Preliminary Subdivision application has been made to subdivide a roughly 70 acre parcel into 50 lots with most lots ~1 acre in size and the southernmost lots (#21 & #22) to be ~4.5 acres in size and contain an existing ready-mix concrete plant and to be ~6.5 acres in size and contain an existing masonry and tile supply yard, respectively. The property is identified as 100% cleared and has been used for various commercial/industrial activities for many decades. It largely consists of a fallow, reclaimed sand pit, with existing industrial activities in its southern portions.

The property consists of multiple independent tax map parcels, all zoned CI: Commercial Industrial. It is situated in Wainscott and is surrounded by an assortment of commercial, industrial, and residential uses.

Part 1. Impact on Land

e. *The proposed action may involve construction that continues for more than one year or in multiple phases.*

The application, as it has been submitted, does not propose any new construction at this time and is solely for the subdivision of the lot. However, this approach does not account for the construction that would most likely need to occur to create the subdivision, including but not limited to; paving for streets, clearing and grading, fire protection, adequate drainage facilities consisting of recharge basins or seepage pools or lots specifically designated for runoff, etc.

Chapter 220 (Subdivision of Land) requires that the Planning Board consider an integrated plan which considers all necessary aspects of a subdivision:

"Integrated plan. At the time of the initial application, all projected improvements to the site shall be disclosed and considered so that an integrated plan of future improvements is developed. If the applicant shall so elect, the overall plan may be divided into phases or stages and separate applications may be filed for each succeeding stage. At the time each phase or stage is offered for review by the Planning Board, the general outline of the plan as a whole and all projected future improvements shall be presented."

In addition to not addressing many of the necessary elements of general subdivision design, the applicants have not provided information regarding the development of the future lots and have not submitted a site plan application or associated information for the two lots proposed to contain the pre-existing industrial uses. In the absence of this information it is impossible for the Planning Board to determine that there will not be a significant adverse impact on land and the scale of the subdivision suggests that construction for both the subdivision itself and the smaller lots will be a long term action.

Part 3. Impact on Surface Waters

i. *The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.*

The southeastern corner of the property sits ~500' from the waters of Georgica Pond, a water body known to be impaired and which has recently been the site of numerous harmful algal blooms. Wastewater and sanitary effluent discharged into leaching pools on this property will

therefore predictably flow in the direction the Pond. Georgica Pond has suffered greatly from various contamination sources and the Planning Board considers any potential for adverse impacts to this protected water body significant.

The East Hampton Town Water Quality Improvement Plan (February 2017) notes that:

"Georgica Pond is included as a water body with impaired segments due to shellfishing use that is considered to be stressed by pathogens. In 2006, a total maximum daily load for pathogens was developed for this area with urban storm water run-off identified as a pollutant source, along with inputs from on-site cesspool and conventional septic systems and, to a much more limited extent, excrement from waterfowl and wildlife (Georgica Pond is a Locally Significant Fish & Wildlife Habitat). This assessment is based on restrictions on shellfishing for consumption purposes. Recreational use and public bathing are also considered to be stressed based on beach monitoring and the shellfishing advisory."

The East Hampton Town Trustees Water Quality Study (prepared by Christopher J. Gobler, PhD dated January 2017) included an analysis of Georgica Pond for various water quality issues including the presence of fecal coliform, Enterococci bacteria, toxic Cyanobacteria, and harmful algal blooms. With respect to harmful algal blooms, the report states (in part): "*Georgica Pond has been substantially impaired by algae for the past three years of observation. A total of four stations have been included since 2014 to provide data more representative of the pond as a whole. The greatest chlorophyll a values measured in East Hampton Town waters have been consistently sampled in Georgica Pond.*"

Protection of the Town's natural resources, including water bodies, and in this specific instance, Georgica Pond, is a primary concern of the Planning Board. Additionally, although the subject parcel is not situated in a designated area uniquely important to groundwater protection such as the Town's Water Recharge Overlay District or the County's Special Groundwater Protection Area (it is within Suffolk County Department of Health Services Groundwater Management Zone V), the Planning Board seeks to minimize adverse impacts upon groundwater in general, regardless of whether or not it travels in the direction of a protected water body.

As also addressed in the response to Part 16, the subject property is a reclaimed sand and gravel pit which has had various intensive industrial uses and activities occurring on it for over 50 years. Being in such close proximity to Georgica Pond means that there is a significant potential for impairment of this water body through groundwater flow should there be contaminants on-site. This therefore warrants comprehensive soil and groundwater testing throughout the site to insure that there are no significant adverse impacts to these surface waters.

It is a requirement of the Town Code that all storm water run-off generated by a site remain contained on that property through adequate drainage control structures. However, it would seem prudent to provide storm water run-off calculations for the entirety of the subdivision and for

proposed final grades to be taken into consideration. This may also require the use of drainage basins or other such areas throughout the subdivision.

k. *The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.*

The subdivision would include 70.5 acres of land which under current Suffolk County Department of Health Services regulations yields an allowable additional flow of 21,150 GPD. Although no information from the Suffolk County Department of Health Services has been submitted to the Planning Board it may be a requirement that a community wastewater treatment system be required. Regardless of what this involved agency requires it is prudent at this time to consider the implications of the potential large additional sanitary flow from a 50 lot subdivision and whether or not this should be addressed by one or more facilities as opposed to on each individual lot.

Part 4. Impact on Groundwater

a. *The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.*

b. *Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer.*

The Planning Board has received a letter from the Suffolk County Water authority (dated August 13, 2018) which states that adequate information regarding the proposed subdivision has not been received by them. This letter states that:

"...As the water provider for this project, anticipated potable water usage information in gallons per day and anticipated irrigation demand in gallons per minute are critical in assessing distribution system improvements and our agency's ability to maintain water pressure during peak usage periods.

Since this information is not available at this time SCWA cannot do a meaningful review of the project and reserves the right to do a proper review of each site plan when they become available."

The scale of the proposed subdivision suggests that water usage will be a significant issue and demand should be determined during the design of the subdivision not only to insure adequate supply but also coordination of the installation of water mains with other utilities and roadways.

e. *The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.*

The proposed project would utilize public water as opposed to constructing new private wells. However, the area has a history of groundwater contamination, as outlined in the response to Part 16, below.

f. *The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.*

The proposed subdivision will most likely not require any such storage itself. However, fuel storage is an allowable use in the CI: Commercial Industrial Zoning District.

Part 11. Impact on Open Space and Recreation

b. The proposed action may result in the loss of a current or future recreational resource.

c. The proposed action may eliminate open space or recreational resource in an area with few such resources.

The property is more than 3 times the size of the existing Wainscott business area and, because of its size and location, will have an oversize influence on the future of Wainscott. The draft Hamlet Plan supports a balance of uses, with the south end of the pit incorporated into a village-style redevelopment area off of Montauk Highway. The Plan also suggests a large area of parkland within the former sand mine. It integrates the development of the property into the plan for the entire business area. The proposed subdivision eliminates the potential for this future recreational resource.

Part 13. Impact on Transportation

a. *Projected traffic increase may exceed capacity of existing road network.*

The property is situated on the largest and most heavily traveled road in the Town and also borders roadways which mainly service residential neighborhoods. The potential impact upon traffic for the project is a significant concern.

The applicants have not submitted a traffic impact study and no anticipated volume counts have been given. The Planning Department provided a hypothetical calculation for additional vehicular trips in its initial evaluation memo (dated June 6, 2018)

"*As a hypothetical example, note that all but two of the lots (which both contain existing uses) are roughly 40,000 sq. ft. Maximum allowable building coverage in the CI: Commercial Industrial Zoning District is 50%, resulting in a maximum allowable building size of 20,000 sq. ft. If all of these lots were developed with warehouse buildings (a relatively benign industrial use) of only a quarter of this size (i.e. 5,000 sq. ft.), then the generated weekday traffic volume for the subdivision under the ITE Trip Generation Manual, 7th Edition, would be 1,190 (5 X 4.96 X 48), plus the traffic from the uses on proposed Lots 21 & 22.*"

This is a potentially extreme increase in traffic volume on Montauk Highway. The New York State Department of Transportation (NYSDOT) NYS Traffic Data Viewer indicated in August of 2015 that the average annual daily traffic count for this section of roadway was 21,334 trips. Under the hypothetical example given above this would be a 5.5% increase and this example was used with only ¼ of what could be built under Town Code dimensional regulations in the CI: Commercial Industrial Zoning District. Regardless, the impact of 50 additional lots is likely to

Highway, neighboring residential neighborhoods to the north and south of the highway are impacted, as motorists seek alternate routes through these residential districts in order to avoid the heavy to gridlock traffic conditions along Montauk Highway. Many of these residential streets are not designed for high volumes of traffic and when used as by-passes, place pedestrians in danger. Development of properties along the highway corridor may exacerbate the situation. The Hamlet Study is anticipated to provide, among other recommendations, potential changes to the Town Code which may result in changes to the use tables and/or design specifications for properties within hamlet areas."

b. *The proposed action may result in the construction of paved parking area for 500 or more vehicles.*

The cumulative parking requirement for general industrial space under the Town Code would exceed 500 spaces but each lot is proposed to be developed with its own required parking (only).

c. *The proposed action will degrade existing transit access.*

d. *The proposed action will degrade existing pedestrian or bicycle accommodations.*

"No or small impact may occur" was checked for these two questions by virtue of the fact that no *existing* transit access or bicycle accommodations are present. However, in both instances, there are various reports and studies which have advocated for these to be added to this property. A future train station is recommended to be considered in the draft Hamlet Study Report for Wainscott and a minimum 20' wide bike path easement along the northern portion of the lot adjacent to the railroad tracks is called for in the Community Preservation Project Plan as well as in the draft Hamlet Study. This bike path has been established on numerous lots to the north on Industrial Road.

e. *The proposed action may alter the present pattern of movement of people or goods.*

An interior road layout with access points at Montauk Highway, Georgica Drive, Wainscott Northwest Road and Hedges Lane has been proposed. The addition of industrial vehicle traffic through residential neighborhoods could have a significant adverse impact to the quality of life of the residents as well as significant alterations to traffic patterns. The Planning Board will need to consider alternative access and roadway layouts.

It is assumed that most of the vehicular traffic would be directed toward Montauk Highway, the Town's main arterial roadway. The access point at Montauk Highway is where Montauk and Old Montauk Highway meet. This area is currently poorly defined and un-signalized. A significant re-design is most likely warranted and the applicants will need to obtain approval of the New York State Department of Transportation (NYSDOT). This location is shown as one for a possible traffic circle on the draft Hamlet Study.

An interior road layout with access points at Montauk Highway, Georgica Drive, Wainscott Northwest Road and Hedges Lane has been proposed. The addition of industrial vehicle traffic through residential neighborhoods could have a significant adverse impact to the quality of life of the residents as well as significant alterations to traffic patterns. The Planning Board will need to consider alternative access and roadway layouts.

It is assumed that most of the vehicular traffic would be directed toward Montauk Highway, the Town's main arterial roadway. The access point at Montauk Highway is where Montauk and Old Montauk Highway meet. This area is currently poorly defined and un-signalized. A significant re-design is most likely warranted and the applicants will need to obtain approval of the New York State Department of Transportation (NYSDOT). This location is shown as one for a possible traffic circle on the draft Hamlet Study.

Part 16. Impact on Human Health

c. *There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.*

The subject property is a reclaimed sand and gravel mine. There have been various other uses and activities on the property over the past decades including the existing ready-mix concrete plant and an existing masonry and tile supply yard. As with all intensive industrial uses the potential for soil and groundwater contamination is always present.

Suffolk County Dept. of Health Services (SCDHS) has recently found excess levels of various metals in the groundwater of a nearby sand and gravel mine in the east end. These contaminants were also found in off-site wells downgradient of that property. In the absence of such tests on the subject property, it cannot be determined whether any remediation is required.

Additionally, the presence of Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) in numerous private wells in this area of Wainscott has been detected by the Suffolk County Dept. of Health Services. This has prompted the Town to establish the Wainscott Water Supply District and the Suffolk County Water Authority is extending numerous water mains throughout the neighboring properties.

The Planning Board feels that without substantial testing of soil and groundwater for a comprehensive list of potential contaminants it cannot be said that the proposed project will not present a significant adverse impact to human health or to groundwater. The existing/ongoing condition of private well contamination in this area make it all the more important to prevent further damage which could also affect neighboring wells as well as Georgica Pond through groundwater travel and/or storm water run-off.

f. *The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.*

The site plan process for new industrial development requires that hazardous materials be considered and the Planning Board enforces its Groundwater Protection Policy on all applications. Therefore, there should not be any immediate adverse impacts from hazardous wastes. However, comprehensive control measures such as filed covenants and restrictions could help to ensure protection from hazardous wastes associated with future lot development and use.

Part 17. Consistency with Community Plans

c. *The proposed action is inconsistent with local land use plans or zoning regulations.*

The Town has recently hired a consulting firm to prepare a Hamlet Study for various areas of the Town which includes this location. Overall, the proposed subdivision layout differs greatly from the conceptual sketches and recommendations in the draft Hamlet Study.

The draft Wainscott Hamlet Study (January 30, 2018) speaks to the design implications of a development of the property purely based upon current zoning, similar to this proposal:

"Under current Commercial-Industrial zoning, the pit could be subdivided into dozens of separate lots and turned into an office or industrial park...

Each site would need appropriate road, parking and drainage improvements, and at least 25% of each lot would have to be vegetated. Each would need to provide a wastewater system complying with county health department requirements. Unfortunately, the result of this process would be a plan that sprawls across the site at a relatively low density, with each building surrounded by a parking lot and a patch of open space that no one uses."

Section 220-1.05 of the Town Code allows for the phasing of subdivision approvals. Given the nature of the recommendations of the Hamlet Study, namely to add industrial development in the southern & eastern portions of the lot and non-industrial uses in other areas, it may be prudent to consider this option. Should the Town adopt the draft Hamlet Study, then the Planning Board has an obligation to insure that development of this property is consistent with these community plans. As currently proposed the subdivision does not fit within the plan for the future of Wainscott, which includes coordination of the development of the subject property with others in the downtown Wainscott area.

e. *The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.*

f. *The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.*

The proposed subdivision will require new roadways, water mains and other utilities, as shown on the submitted plans. As referenced in response to questions above it is not known at this time what impact generated traffic may have on Montauk Highway or any other adjacent roadway. It is also not known what water supply needs will be and whether or not this will require additional changes in adjacent areas. However, the scale of the subdivision suggests that numerous forms of infrastructure will require significant alteration.

g. *The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)*

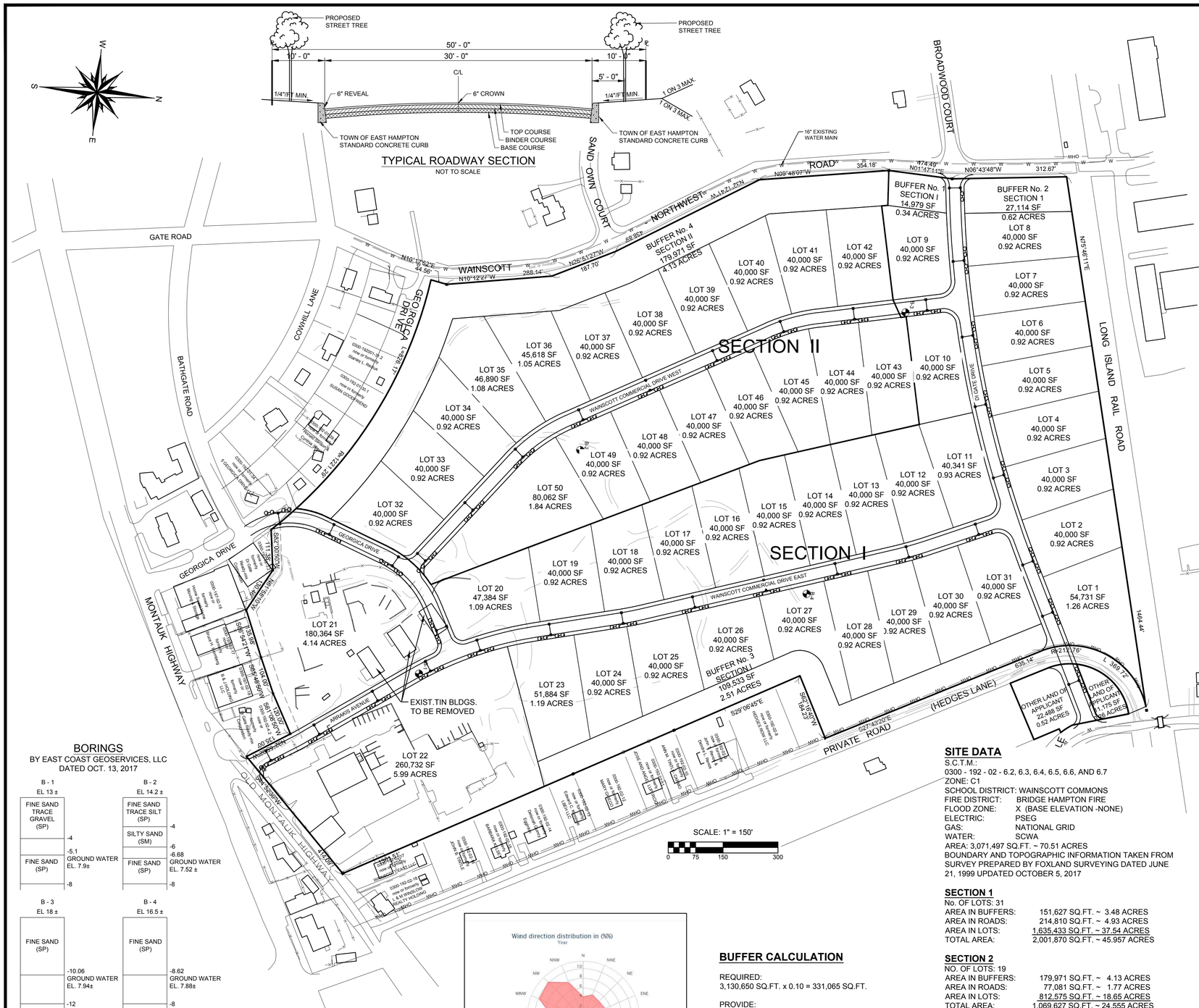
The scale of the subdivision in relation to the remainder of the downtown Wainscott area will undoubtedly have implications on what businesses and services are needed to support the additional employees as well as potential patrons now drawn to the site.

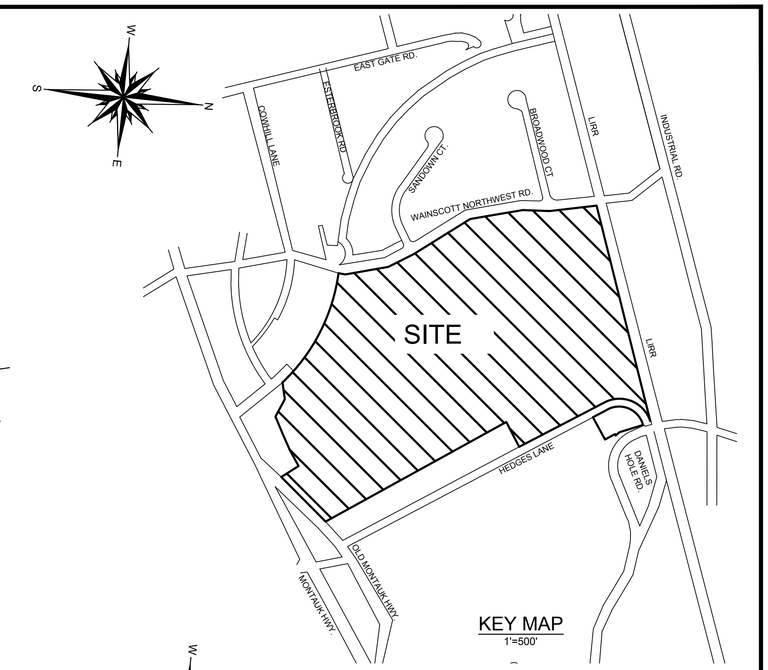
Conclusion:

The Planning Board finds that the proposed action presents a potential for significant adverse impacts for all of the reasons elaborated upon above. Accordingly, the Planning Board makes a positive declaration pursuant to SEQRA and Chapter 128 of the Town Code at this time and will require the preparation of a Draft Environmental Impact Statement (DEIS).

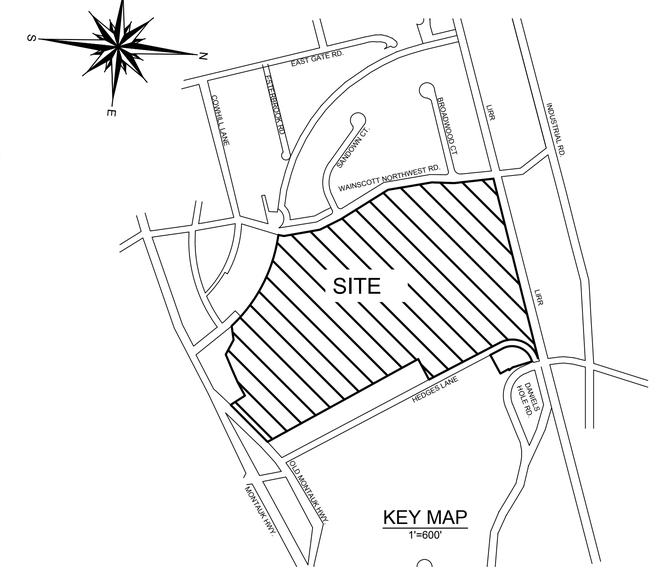
APPENDIX A-2

SUBDIVISION PLAT PLANS





KEY MAP
1'=500'

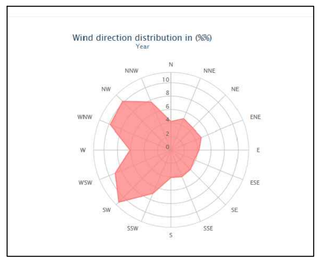


KEY MAP
1'=600'

BORINGS

BY EAST COAST GEOSERVICES, LLC
DATED OCT. 13, 2017

Month of year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
	01	02	03	04	05	06	07	08	09	10	11	12	1-12
Dominant wind direction													
Wind probability >= 4 Beaufort (%)	36	40	37	34	26	17	13	13	20	26	27	30	26
Average Wind speed (mph)	10	12	12	10	10	9	8	8	9	9	9	10	9
Average air temp. (°F)	34	34	43	52	61	70	77	75	70	61	50	41	55



PREVAILING WINDS

NOTE: SOLAR ACCESS ORIENTATION -TRUE SOUTH IS OPTIMAL

BUFFER CALCULATION

REQUIRED:
3,130,650 SQ.FT. x 0.10 = 331,065 SQ.FT.

PROVIDE:
331,598 SQ.FT.

SITE DATA
(OTHER LAND OF APPLICANT)

S.C.T.M.: 0300 - 192 - 03 - 11
ZONE: A2
AREA: 42,607 SQ.FT. ~ 0.98 ACRES

No. OF LOTS:	2	
AREA IN ROADS:	8,944 SQ.FT. ~	0.21 ACRES
AREA IN LOTS:	33,663 SQ.FT. ~	0.77 ACRES
TOTAL AREA:	42,607 SQ.FT. ~	0.98 ACRES

SITE DATA

S.C.T.M.:
0300 - 192 - 02 - 6.2, 6.3, 6.4, 6.5, 6.6, AND 6.7
ZONE: C1
SCHOOL DISTRICT: WAINSCOTT COMMONS
FIRE DISTRICT: BRIDGE HAMPTON FIRE
FLOOD ZONE: X (BASE ELEVATION -NONE)
ELECTRIC: PSEG
GAS: NATIONAL GRID
WATER: SCWA
AREA: 3,071,497 SQ.FT. ~ 70.51 ACRES
BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM SURVEY PREPARED BY FOXLAND SURVEYING DATED JUNE 21, 1999 UPDATED OCTOBER 5, 2017

SECTION 1

No. OF LOTS:	31	
AREA IN BUFFERS:	151,627 SQ.FT. ~	3.48 ACRES
AREA IN ROADS:	214,810 SQ.FT. ~	4.93 ACRES
AREA IN LOTS:	1,635,433 SQ.FT. ~	37.54 ACRES
TOTAL AREA:	2,001,870 SQ.FT. ~	45.957 ACRES

SECTION 2

NO. OF LOTS:	19	
AREA IN BUFFERS:	179,971 SQ.FT. ~	4.13 ACRES
AREA IN ROADS:	77,081 SQ.FT. ~	1.77 ACRES
AREA IN LOTS:	812,575 SQ.FT. ~	18.65 ACRES
TOTAL AREA:	1,069,627 SQ.FT. ~	24.555 ACRES

OWNER/ APPLICANT

OWNER: WAINSCOTT HAMLET CENTER LLC
ADDRESS: 30 MONTAUK HIGHWAY WAINSCOTT NEW YORK, 11975
MAILING ADDRESS:P.O. BOX 1259 WAINSCOTT NEW YORK 11975

OWNER BY LOTS
Wainscott Hamlet Center LLC - lots 6.4 and 6.6
Wainscott Industrial LLC- lots 6.5 and 6.7
Wainscott Commercial Center LLC - lots 6.2 and 6.3.

NO.	DATE:	REVISIONS:	BY:
1	11-14-2019	GENERAL REVISION	GEO

P.E. SEAL AND SIGNATURE

PRELIMINARY PLAT OVERALL
FOR
WAINSCOTT COMMERCIAL CENTER
SITUATED AT
EAST HAMPTON
TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

NELSON & POPE
ENGINEERS & SURVEYORS
572 WALT WHITMAN ROAD, MELVILLE, N.Y. 11747
PHONE (631) 427-5665 FAX (631) 427-5620
WWW.NELSONPOPE.COM

PROJECT NO.:	17071
DRAWN BY:	GEO
CHECKED BY:	VB
DATE:	DECEMBER, 2017
SCALE:	1" = 150'
FILE NO.:	--
CADD:	17071 PM.DWG
DRAWING NO.:	C-101
SHEET NO.:	1 OF 7

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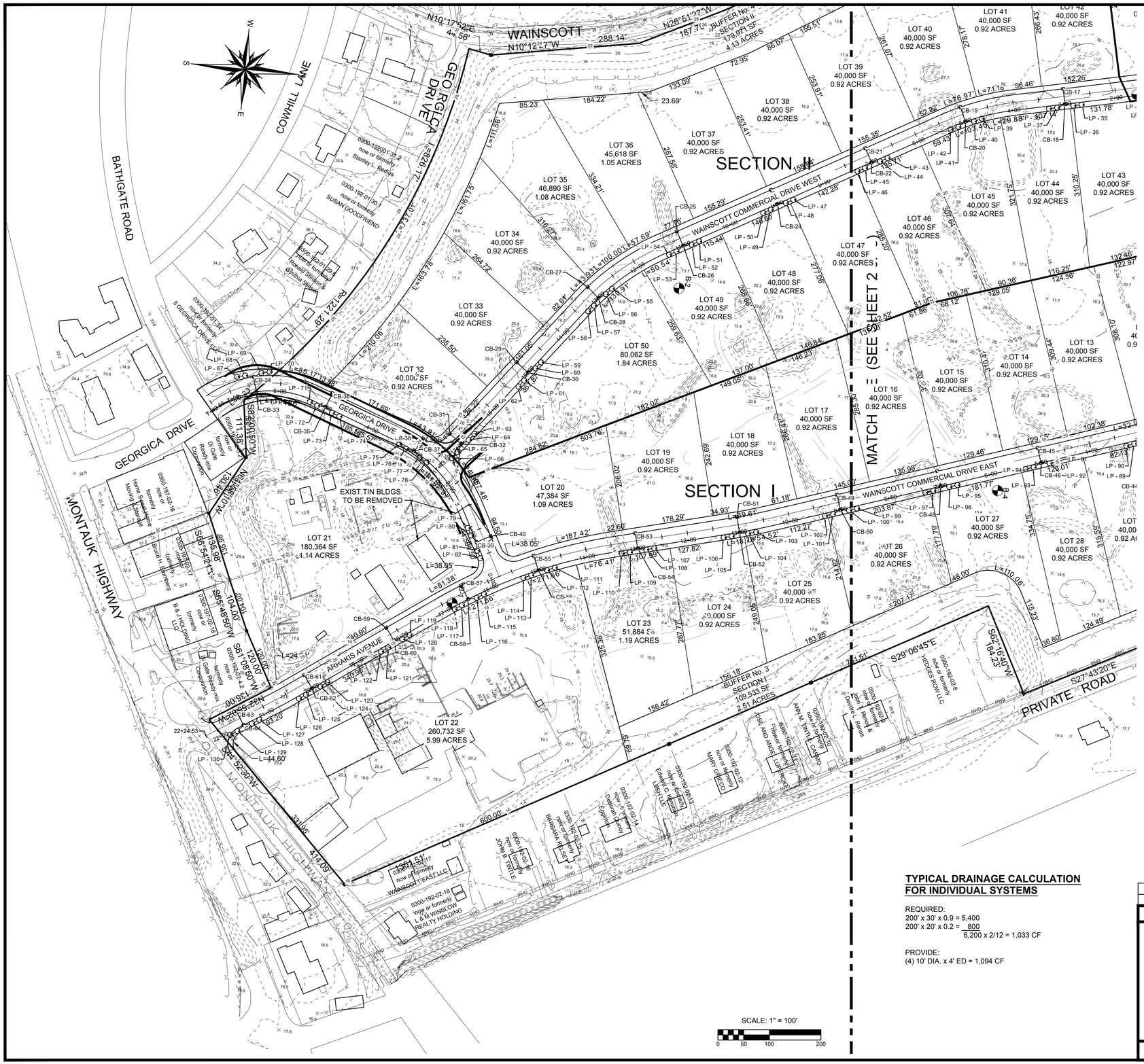
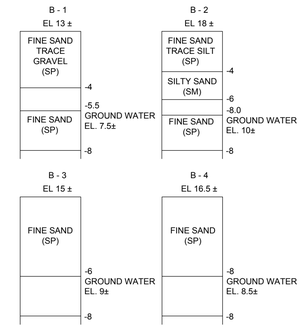
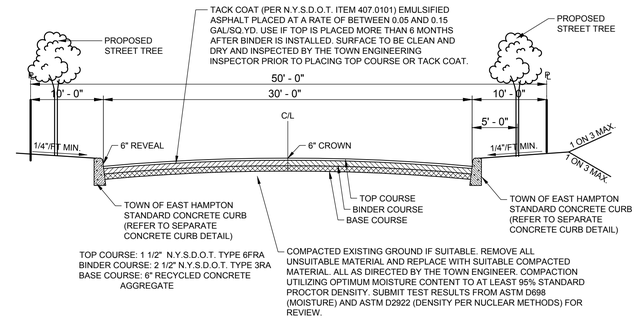


BORINGS

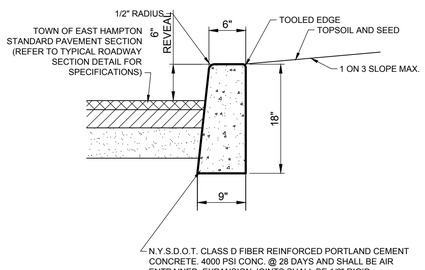
BY EAST COAST GEOSERVICES, LLC
DATED OCT. 13, 2017





TYPICAL ROADWAY SECTION

NOT TO SCALE



CONCRETE CURB DETAIL

NOT TO SCALE

TYPICAL DRAINAGE CALCULATION FOR INDIVIDUAL SYSTEMS

REQUIRED:
200' x 30' x 0.9 = 5,400
200' x 20' x 0.2 = 800
6,200 x 2/12 = 1,033 CF

PROVIDE:
(4) 10' DIA. x 4' ED = 1,094 CF

NO.	DATE:	REVISIONS:	BY:
1	11-14-2019	GENERAL REVISION	GEO

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PRE - PRELIMINARY MAP 1
FOR
WAINSCOTT COMMERCIAL CENTER
SITUATED AT
EAST HAMPTON
TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

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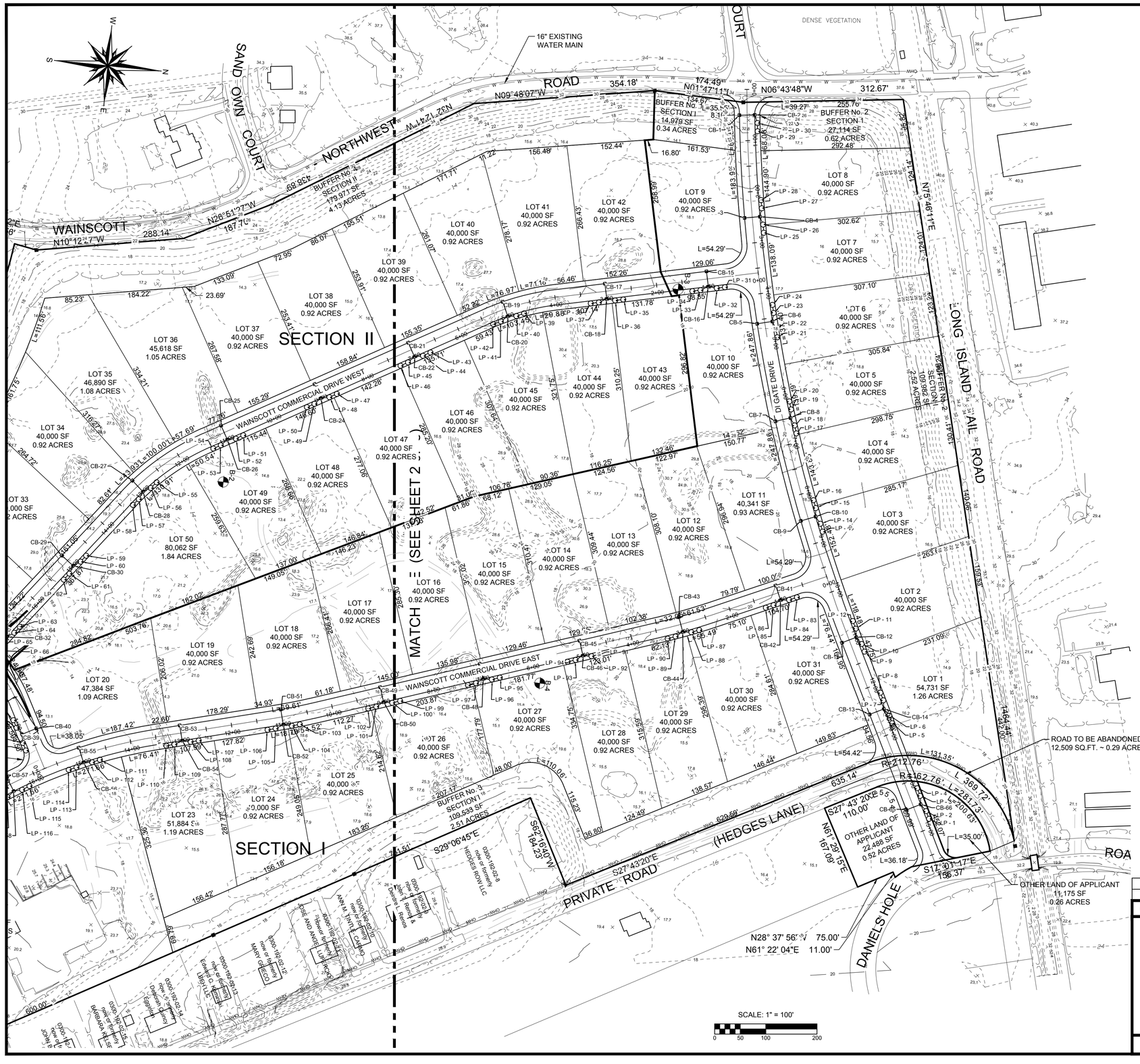
PROJECT NO.:	17071
DRAWN BY:	GEO
CHECKED BY:	VB
DATE:	DECEMBER, 2017
SCALE:	1" = 100'
FILE NO.:	--
CADD:	17071 PM.DWG
DRAWING NO.:	C-102
SHEET NO.:	2 OF 7

O:\projects\17071\PRELIMINARY\17071 PM.dwg, 2 OF 7 PRELIMINARY MAP 1, 11/14/2019 8:07:19 AM, DWG To PDF.pc3



NO.	DATE:	REVISIONS:	BY:
1	11-14-2019	GENERAL REVISION	GEO

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PRE - PRELIMINARY MAP 2

FOR

WAINSCOTT COMMERCIAL CENTER

SITUATED AT

EAST HAMPTON

TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

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PROJECT NO.:	17071
DRAWN BY:	GEO
CHECKED BY:	VB
DATE:	DECEMBER, 2017
SCALE:	1" = 100'
FILE NO.:	--
CADD:	17071 PM.DWG
DRAWING NO.:	C-103
SHEET NO.:	3 OF 7

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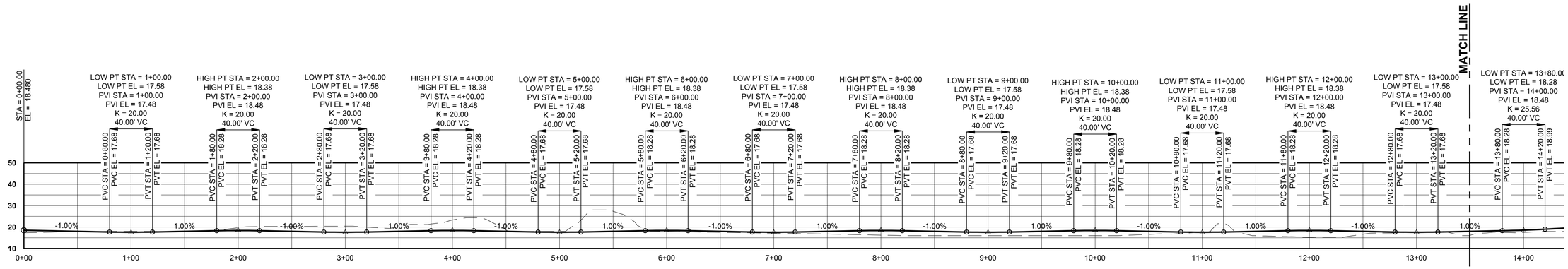
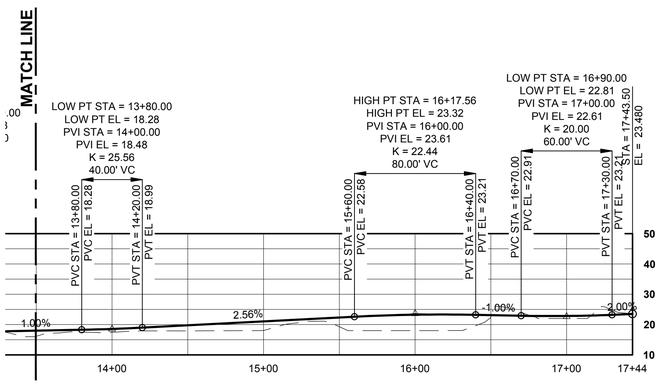


WAINSCOTT COMMERCIAL DRIVE WEST

STA. 0+00 TO STA. 13+50.00



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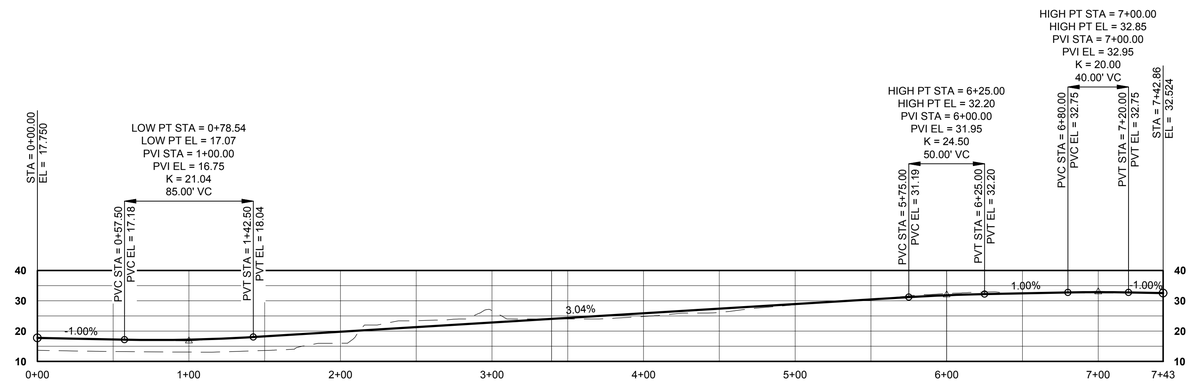
STA. 13+50.00 TO STA. 17+44.00



GEORGICA DRIVE

STA. 0+00.00 TO STA. 7+42.86

NO.	DATE:	REVISIONS:	BY:
1	11-14-2019	GENERAL REVISION	GEO

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PROFILES 1
FOR
WAINSCOTT COMMERCIAL CENTER
SITUATED AT
EAST HAMPTON
TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

NELSON & POPE
ENGINEERS & SURVEYORS
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PHONE (631) 427-5665 FAX (631) 427-5620
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PROJECT NO.:	17071
DRAWN BY:	GEO
CHECKED BY:	VB
DATE:	DECEMBER, 2017
SCALE:	1" =50'
FILE NO.:	--
CADD:	17071 PM.DWG
DRAWING NO.:	C-104
SHEET NO.:	4 OF 7

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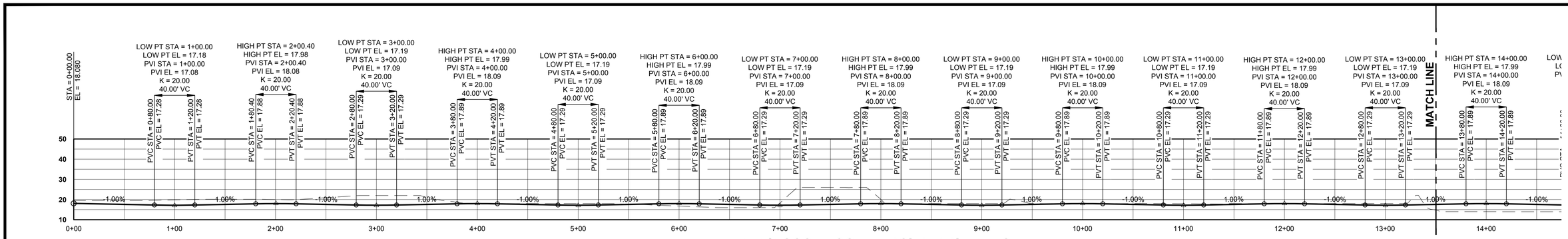
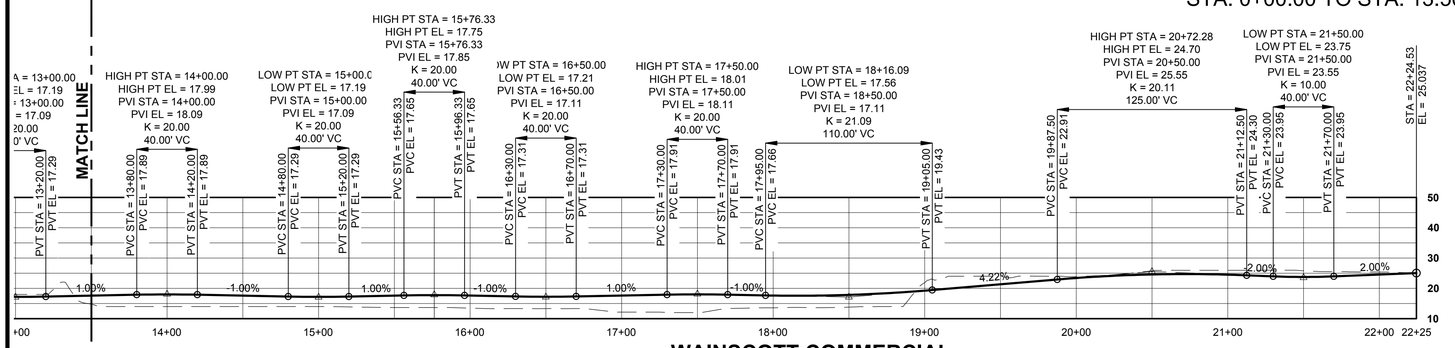
DWG To PDF.pc3



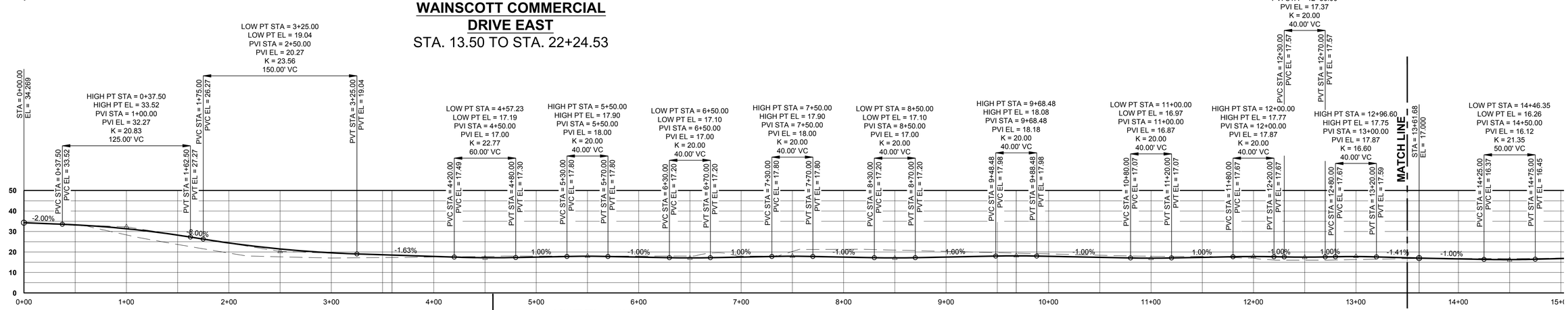
WAINSCOTT COMMERCIAL DRIVE EAST

STA. 0+00.00 TO STA. 13.50



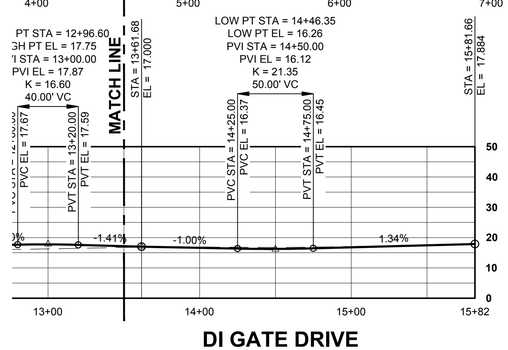
WAINSCOTT COMMERCIAL DRIVE EAST

STA. 13.50 TO STA. 22+24.53



DI GATE DRIVE

STA. 0+00 TO STA. 13+50.00



DI GATE DRIVE

STA. 13+50.00 TO STA. 15+81.66

NO.	DATE:	REVISIONS:	BY:
1	11-14-2019	GENERAL REVISION	GEO

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PROFILES 2
FOR
WAINSCOTT COMMERCIAL CENTER
SITUATED AT
EAST HAMPTON
TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

NELSON & POPE
ENGINEERS & SURVEYORS
572 WALT WHITMAN ROAD, MELVILLE, N.Y. 11747
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WWW.NELSONPOPE.COM

PROJECT NO.:	17071
DRAWN BY:	GEO
CHECKED BY:	VB
DATE:	DECEMBER, 2017
SCALE:	1" = 50'
FILE NO.:	--
CADD:	17071 PM.DWG
DRAWING NO.:	C-105
SHEET NO.:	5 OF 7

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STRUCTURE ID	GRATE / COVER ELEVATION	HIGH WATER	BOTTOM	INVERT	TYPE OF STRUCTURE	TOTAL DEPTH	COVER TYPE
LP - 1	16.64	EL. 12.00	9.00	INV. SW = 10.10	10' Ø SLAB TOP LP x 4' ED	7.64'	SOLID COVER
LP - 2	16.47	EL. 12.00	9.00	INV. NE = 10.30 INV. SW = 10.30	10' Ø SLAB TOP LP x 4' ED	7.47'	SOLID COVER
LP - 3	16.41	EL. 12.00	9.00	INV. E = 10.30 INV. SW = 10.30	10' Ø SLAB TOP LP x 4' ED	7.41'	SOLID COVER
LP - 4	16.53	EL. 14.00	9.00	INV. NE = 10.10	10' Ø SLAB TOP LP x 4' ED	7.53'	SOLID COVER
LP - 5	17.78	EL. 14.00	10.00	INV. SW = 11.10	10' Ø SLAB TOP LP x 4' ED	7.78'	SOLID COVER
LP - 6	17.64	EL. 14.00	10.00	INV. NE = 11.30 INV. SW = 11.30	10' Ø SLAB TOP LP x 4' ED	7.64'	SOLID COVER
LP - 7	17.64	EL. 14.00	10.00	INV. E = 11.30 INV. SW = 12.38	10' Ø SLAB TOP LP x 4' ED	7.64'	SOLID COVER
LP - 8	17.77	EL. 14.00	10.00	INV. NE = 11.10	10' Ø SLAB TOP LP x 4' ED	7.77'	SOLID COVER
LP - 9	17.28	EL. 14.00	10.00	INV. SW = 10.60	10' Ø SLAB TOP LP x 4' ED	7.28'	SOLID COVER
LP - 10	17.14	EL. 14.00	10.00	INV. NE = 10.80 INV. SW = 10.80	10' Ø SLAB TOP LP x 4' ED	7.14'	SOLID COVER
LP - 11	17.13	EL. 14.00	10.00	INV. E = 10.80 INV. SW = 10.80	10' Ø SLAB TOP LP x 4' ED	7.13'	SOLID COVER
LP - 12	17.28	EL. 14.00	10.00	INV. NE = 10.60	10' Ø SLAB TOP LP x 4' ED	7.28'	SOLID COVER
LP - 13	17.41	EL. 14.00	10.00	INV. W = 11.10	10' Ø SLAB TOP LP x 4' ED	7.41'	SOLID COVER
LP - 14	17.26	EL. 14.00	10.00	INV. E = 11.30 INV. SW = 11.30	10' Ø SLAB TOP LP x 4' ED	7.26'	SOLID COVER
LP - 15	17.26	EL. 14.00	10.00	INV. E = 11.30 INV. W = 11.30	10' Ø SLAB TOP LP x 4' ED	7.26'	SOLID COVER
LP - 16	17.41	EL. 14.00	10.00	INV. E = 11.10	10' Ø SLAB TOP LP x 4' ED	7.41'	SOLID COVER
LP - 17	17.41	EL. 14.00	10.00	INV. W = 11.10	10' Ø SLAB TOP LP x 4' ED	7.41'	SOLID COVER
LP - 18	17.26	EL. 14.00	10.00	INV. E = 11.30 INV. SW = 11.30	10' Ø SLAB TOP LP x 4' ED	7.26'	SOLID COVER
LP - 19	17.26	EL. 14.00	10.00	INV. E = 11.30 INV. W = 11.30	10' Ø SLAB TOP LP x 4' ED	7.26'	SOLID COVER
LP - 20	17.41	EL. 14.00	10.00	INV. E = 11.10	10' Ø SLAB TOP LP x 4' ED	7.41'	SOLID COVER
LP - 21	17.48	EL. 14.00	10.00	INV. W = 11.10	10' Ø SLAB TOP LP x 4' ED	7.48'	SOLID COVER
LP - 22	17.33	EL. 14.00	10.00	INV. E = 11.30 INV. SW = 11.30	10' Ø SLAB TOP LP x 4' ED	7.33'	SOLID COVER

STRUCTURE ID	GRATE / COVER ELEVATION	HIGH WATER	BOTTOM	INVERT	TYPE OF STRUCTURE	TOTAL DEPTH	COVER TYPE
LP - 23	17.33	EL. 14.00	10.00	INV. E = 11.30 INV. W = 11.30	10' Ø SLAB TOP LP x 4' ED	7.33'	SOLID COVER
LP - 24	17.50	EL. 14.00	10.00	INV. E = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 25	20.22	EL. 17.00	13.00	INV. W = 15.10	10' Ø SLAB TOP LP x 4' ED	7.22'	SOLID COVER
LP - 26	20.83	EL. 17.00	13.00	INV. E = 15.30 INV. SW = 15.30	10' Ø SLAB TOP LP x 4' ED	7.83'	SOLID COVER
LP - 27	22.38	EL. 19.00	13.00	INV. E = 15.30 INV. W = 15.30	10' Ø SLAB TOP LP x 4' ED	9.38'	SOLID COVER
LP - 28	23.32	EL. 20.00	13.00	INV. E = 15.10	10' Ø SLAB TOP LP x 4' ED	10.32'	SOLID COVER
LP - 29	32.23	EL. 29.00	21.00	INV. W = 27.00	10' Ø SLAB TOP LP x 8' ED	11.23'	SOLID COVER
LP - 30	32.84	EL. 29.00	21.00	INV. E = 27.20 INV. SW = 27.20	10' Ø SLAB TOP LP x 8' ED	11.84'	SOLID COVER
LP - 31	17.89	EL. 14.50	10.50	INV. S = 11.60	10' Ø SLAB TOP LP x 4' ED	7.39'	SOLID COVER
LP - 32	17.75	EL. 14.50	10.50	INV. S = 11.80 INV. N = 11.80	10' Ø SLAB TOP LP x 4' ED	7.25'	SOLID COVER
LP - 33	17.75	EL. 14.50	10.50	INV. NW = 11.80 INV. S = 11.80	10' Ø SLAB TOP LP x 4' ED	7.25'	SOLID COVER
LP - 34	17.89	EL. 14.50	10.50	INV. N = 11.60	10' Ø SLAB TOP LP x 4' ED	7.39'	SOLID COVER
LP - 35	17.89	EL. 14.50	10.50	INV. S = 11.60	10' Ø SLAB TOP LP x 4' ED	7.39'	SOLID COVER
LP - 36	17.75	EL. 14.50	10.50	INV. S = 11.80 INV. N = 11.80	10' Ø SLAB TOP LP x 4' ED	7.25'	SOLID COVER
LP - 37	17.75	EL. 14.50	10.50	INV. NW = 11.80 INV. S = 11.80	10' Ø SLAB TOP LP x 4' ED	7.25'	SOLID COVER
LP - 38	17.89	EL. 14.50	10.50	INV. N = 11.60	10' Ø SLAB TOP LP x 4' ED	7.39'	SOLID COVER
LP - 39	17.88	EL. 14.50	10.50	INV. SE = 11.60	10' Ø SLAB TOP LP x 4' ED	7.38'	SOLID COVER
LP - 40	17.74	EL. 14.50	10.50	INV. S = 11.80 INV. NW = 11.80	10' Ø SLAB TOP LP x 4' ED	7.24'	SOLID COVER
LP - 41	17.74	EL. 14.50	10.50	INV. NW = 11.80 INV. SE = 11.80	10' Ø SLAB TOP LP x 4' ED	7.24'	SOLID COVER
LP - 42	17.88	EL. 14.50	10.50	INV. NW = 11.60	10' Ø SLAB TOP LP x 4' ED	7.38'	SOLID COVER
LP - 43	17.89	EL. 14.50	10.50	INV. SE = 11.60	10' Ø SLAB TOP LP x 4' ED	7.39'	SOLID COVER
LP - 44	17.75	EL. 14.50	10.50	INV. S = 11.80 INV. NW = 11.80	10' Ø SLAB TOP LP x 4' ED	7.25'	SOLID COVER

STRUCTURE ID	GRATE / COVER ELEVATION	HIGH WATER	BOTTOM	INVERT	TYPE OF STRUCTURE	TOTAL DEPTH	COVER TYPE
LP - 45	17.75	EL. 14.50	10.50	INV. NW = 11.80 INV. SE = 11.80	10' Ø SLAB TOP LP x 4' ED	7.25'	SOLID COVER
LP - 46	17.89	EL. 14.50	10.50	INV. NW = 11.99	10' Ø SLAB TOP LP x 4' ED	7.39'	SOLID COVER
LP - 47	17.89	EL. 14.50	10.50	INV. SE = 11.60	10' Ø SLAB TOP LP x 4' ED	7.39'	SOLID COVER
LP - 48	17.75	EL. 14.50	10.50	INV. S = 11.80 INV. NW = 11.80	10' Ø SLAB TOP LP x 4' ED	7.25'	SOLID COVER
LP - 49	17.75	EL. 14.50	10.50	INV. NW = 11.80 INV. SE = 11.80	10' Ø SLAB TOP LP x 4' ED	7.25'	SOLID COVER
LP - 50	17.89	EL. 14.50	10.50	INV. NW = 11.60	10' Ø SLAB TOP LP x 4' ED	7.39'	SOLID COVER
LP - 51	17.89	EL. 14.50	10.50	INV. SE = 11.60	10' Ø SLAB TOP LP x 4' ED	7.39'	SOLID COVER
LP - 52	17.75	EL. 14.50	10.50	INV. S = 11.80 INV. NW = 11.80	10' Ø SLAB TOP LP x 4' ED	7.25'	SOLID COVER
LP - 53	17.75	EL. 14.50	10.50	INV. NW = 11.80 INV. SE = 11.80	10' Ø SLAB TOP LP x 4' ED	7.25'	SOLID COVER
LP - 54	17.89	EL. 14.50	10.50	INV. NW = 11.60	10' Ø SLAB TOP LP x 4' ED	7.39'	SOLID COVER
LP - 55	17.88	EL. 14.50	10.50	INV. SE = 11.60	10' Ø SLAB TOP LP x 4' ED	7.38'	SOLID COVER
LP - 56	17.74	EL. 14.50	10.50	INV. SE = 11.80 INV. NW = 11.80	10' Ø SLAB TOP LP x 4' ED	7.24'	SOLID COVER
LP - 57	17.74	EL. 14.50	10.50	INV. NW = 11.80 INV. SE = 11.80	10' Ø SLAB TOP LP x 4' ED	7.24'	SOLID COVER
LP - 58	17.88	EL. 14.50	10.50	INV. NW = 11.60	10' Ø SLAB TOP LP x 4' ED	7.38'	SOLID COVER
LP - 59	20.31	EL. 17.00	12.00	INV. SE = 13.60	10' Ø SLAB TOP LP x 4' ED	8.31'	SOLID COVER
LP - 60	20.73	EL. 17.00	12.00	INV. SE = 13.80 INV. NW = 13.80	10' Ø SLAB TOP LP x 4' ED	8.73'	SOLID COVER
LP - 61	21.55	EL. 17.00	12.00	INV. W = 13.80 INV. SE = 13.80	10' Ø SLAB TOP LP x 4' ED	9.55'	SOLID COVER
LP - 62	21.96	EL. 17.00	12.00	INV. NW = 13.60	10' Ø SLAB TOP LP x 4' ED	9.96'	SOLID COVER
LP - 63	23.12	EL. 20.00	14.00	INV. SE = 17.60	10' Ø SLAB TOP LP x 4' ED	9.12'	SOLID COVER
LP - 64	22.97	EL. 19.00	14.00	INV. SE = 17.80 INV. NW = 17.80	10' Ø SLAB TOP LP x 4' ED	8.97'	SOLID COVER
LP - 65	22.30	EL. 19.00	14.00	INV. W = 17.80 INV. SE = 17.80	10' Ø SLAB TOP LP x 4' ED	8.30'	SOLID COVER
LP - 66	21.15	EL. 18.00	14.00	INV. NW = 17.60	10' Ø SLAB TOP LP x 4' ED	7.15'	SOLID COVER

STRUCTURE ID	GRATE / COVER ELEVATION	HIGH WATER	BOTTOM	INVERT	TYPE OF STRUCTURE	TOTAL DEPTH	COVER TYPE
LP - 67	32.88	EL. 28.00	24.00	INV. N = 26.10	10' Ø SLAB TOP LP x 4' ED	8.88'	SOLID COVER
LP - 68	32.70	EL. 28.00	24.00	INV. N = 26.30 INV. S = 26.30	10' Ø SLAB TOP LP x 4' ED	8.70'	SOLID COVER
LP - 69	32.41	EL. 28.00	24.00	INV. SE = 26.30 INV. N = 26.30	10' Ø SLAB TOP LP x 4' ED	8.41'	SOLID COVER
LP - 70	32.30	EL. 28.00	24.00	INV. S = 26.10	10' Ø SLAB TOP LP x 4' ED	8.30'	SOLID COVER
LP - 71	29.99	EL. 25.00	21.00	INV. N = 22.60	10' Ø SLAB TOP LP x 4' ED	8.99'	SOLID COVER
LP - 72	29.49	EL. 25.00	21.00	INV. N = 22.80 INV. S = 22.80	10' Ø SLAB TOP LP x 4' ED	8.49'	SOLID COVER
LP - 73	28.52	EL. 25.00	21.00	INV. SW = 22.80 INV. N = 22.80	10' Ø SLAB TOP LP x 4' ED	7.52'	SOLID COVER
LP - 74	28.03	EL. 25.00	21.00	INV. S = 22.60	10' Ø SLAB TOP LP x 4' ED	7.03'	SOLID COVER
LP - 75	24.09	EL. 19.00	15.00	INV. NE = 16.60	10' Ø SLAB TOP LP x 4' ED	9.09'	SOLID COVER
LP - 76	23.61	EL. 19.00	15.00	INV. N = 16.80 INV. SW = 16.80	10' Ø SLAB TOP LP x 4' ED	8.61'	SOLID COVER
LP - 77	22.56	EL. 19.00	15.00	INV. SW = 16.80 INV. NE = 16.80	10' Ø SLAB TOP LP x 4' ED	5.76'	SOLID COVER
LP - 78	22.01	EL. 19.00	15.00	INV. SW = 16.60	10' Ø SLAB TOP LP x 4' ED	7.01'	SOLID COVER
LP - 79	17.44	EL. 14.00	10.00	INV. NE = 11.10	10' Ø SLAB TOP LP x 4' ED	7.44'	SOLID COVER
LP - 80	17.24	EL. 14.00	10.00	INV. NE = 11.30 INV. SW = 11.30	10' Ø SLAB TOP LP x 4' ED	7.24'	SOLID COVER
LP - 81	17.24	EL. 14.00	10.00	INV. W = 11.30 INV. NE = 11.30	10' Ø SLAB TOP LP x 4' ED	7.24'	SOLID COVER
LP - 82	17.34	EL. 14.00	10.00	INV. SW = 11.10	10' Ø SLAB TOP LP x 4' ED	7.34'	SOLID COVER
LP - 83	17.49	EL. 14.00	10.00	INV. SE = 11.10	10' Ø SLAB TOP LP x 4' ED	7.49'	SOLID COVER
LP - 84	17.35	EL. 14.00	10.00	INV. S = 11.30 INV. NW = 11.30	10' Ø SLAB TOP LP x 4' ED	7.35'	SOLID COVER
LP - 85	17.35	EL. 14.00	10.00	INV. NW = 11.30 INV. SE = 11.30	10' Ø SLAB TOP LP x 4' ED	7.35'	SOLID COVER
LP - 86	17.49	EL. 14.00	10.00	INV. NW = 11.10	10' Ø SLAB TOP LP x 4' ED	7.49'	SOLID COVER
LP - 87	17.50	EL. 14.00	10.00	INV. S = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 88	17.34	EL. 14.00	10.00	INV. S = 11.30 INV. N = 11.30	10' Ø SLAB TOP LP x 4' ED	7.34'	SOLID COVER

STRUCTURE ID	GRATE / COVER ELEVATION	HIGH WATER	BOTTOM	INVERT	TYPE OF STRUCTURE	TOTAL DEPTH	COVER TYPE
LP - 89	17.34	EL. 14.00	10.00	INV. NW = 11.30 INV. S = 11.30	10' Ø SLAB TOP LP x 4' ED	7.34'	SOLID COVER
LP - 90	17.50	EL. 14.00	10.00	INV. N = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 91	17.50	EL. 14.00	10.00	INV. S = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 92	17.36	EL. 14.00	10.00	INV. S = 11.30 INV. N = 11.30	10' Ø SLAB TOP LP x 4' ED	7.36'	SOLID COVER
LP - 93	17.36	EL. 14.00	10.00	INV. NW = 11.30 INV. S = 11.30	10' Ø SLAB TOP LP x 4' ED	7.36'	SOLID COVER
LP - 94	17.50	EL. 14.00	10.00	INV. N = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 95	17.50	EL. 14.00	10.00	INV. S = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 96	17.36	EL. 14.00	10.00	INV. S = 11.30 INV. N = 11.30	10' Ø SLAB TOP LP x 4' ED	7.36'	SOLID COVER
LP - 97	17.36	EL. 14.00	10.00	INV. NW = 11.30 INV. S = 11.30	10' Ø SLAB TOP LP x 4' ED	7.36'	SOLID COVER
LP - 98	17.50	EL. 14.00	10.00	INV. N = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 99	17.50	EL. 14.00	10.00	INV. S = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 100	17.36	EL. 14.00	10.00	INV. S = 11.30 INV. N = 11.30	10' Ø SLAB TOP LP x 4' ED	7.36'	SOLID COVER
LP - 101	17.36	EL. 14.00	10.00	INV. NW = 11.30 INV. S = 11.30	10' Ø SLAB TOP LP x 4' ED	7.36'	SOLID COVER
LP - 102	17.50	EL. 14.00	10.00	INV. N = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 103	17.50	EL. 14.00	10.00	INV. S = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 104	17.34	EL. 14.00	10.00	INV. S = 11.30 INV. N = 11.30	10' Ø SLAB TOP LP x 4' ED	7.34'	SOLID COVER
LP - 105	17.35	EL. 14.00	10.00	INV. NW = 11.30 INV. S = 11.30	10' Ø SLAB TOP LP x 4' ED	7.35'	SOLID COVER
LP - 106	17.50	EL. 14.00	10.00	INV. N = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 107	17.50	EL. 14.00	10.00	INV. S = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER
LP - 108	17.36	EL. 14.00	10.00	INV. S = 11.30 INV. N = 11.30	10' Ø SLAB TOP LP x 4' ED	7.36'	SOLID COVER
LP - 109	17.36	EL. 14.00	10.00	INV. NW = 11.30 INV. S = 11.30	10' Ø SLAB TOP LP x 4' ED	7.36'	SOLID COVER
LP - 110	17.50	EL. 0.00	10.00	INV. N = 11.10	10' Ø SLAB TOP LP x 4' ED	7.50'	SOLID COVER

STRUCTURE ID	GRATE / COVER ELEVATION	HIGH WATER	BOTTOM	INVERT	TYPE OF STRUCTURE	TOTAL DEPTH	COVER TYPE
LP - 111	17.49	EL. 14.00	10.00	INV. SE = 11.10	10' Ø SLAB TOP LP x 4' ED	7.49'	SOLID COVER
LP - 112	17.34	EL. 14.00	10.00	INV. S = 11.30 INV. NW = 11.30	10' Ø SLAB TOP LP x 4' ED	7.34'	SOLID COVER
LP - 113	17.34	EL. 14.00	10.00	INV. NW = 11.30 INV. SE = 11.30	10' Ø SLAB TOP LP x 4' ED	7.34'	SOLID COVER
LP - 114	17.49	EL. 14.00	10.00	INV. NW = 11.10	10' Ø SLAB TOP LP x 4' ED	7.49'	SOLID COVER
LP - 115	17.52	EL. 14.00	10.00	INV. SE = 11.10	10' Ø SLAB TOP LP x 4' ED	7.52'	SOLID COVER
LP - 116	17.37	EL. 14.00	10.00	INV. S = 11.30 INV. NW = 11.30	10' Ø SLAB TOP LP x 4' ED	7.37'	SOLID COVER
LP - 117	17.37	EL. 14.00	10.00	INV. NW = 11.30 INV. SE = 11.30	10' Ø SLAB TOP LP x 4' ED	7.37'	SOLID COVER
LP - 118	17.52	EL. 14.00	10.00	INV. NW = 11.10	10' Ø SLAB TOP LP x 4' ED	7.52'	SOLID COVER
LP - 119	17.86	EL. 14.50	10.50	INV. SE = 11.60	10' Ø SLAB TOP LP x 4' ED	7.36'	GRATE
LP - 120	17.71	EL. 14.50	10.50	INV. S = 11.80 INV. NW = 11.80	10' Ø SLAB TOP LP x 4' ED	7.21'	SOLID COVER
LP - 121	17.74	EL. 14.50	10.50	INV. NW = 11.80 INV. SE = 11.80	10' Ø SLAB TOP LP x 4' ED	7.24'	SOLID COVER
LP - 122	17.90	EL. 14.50	10.00	INV. NW = 11.60	10' Ø SLAB TOP LP x 4' ED	7.90'	SOLID COVER
LP - 123	22.18	EL. 19.00	15.00	INV. SE = 17.10	10' Ø SLAB TOP LP x 4' ED	7.18'	SOLID COVER
LP - 124	22.85	EL. 19.00	15.00	INV. S = 17.30 INV. NW = 17.30	10' Ø SLAB TOP LP x 4' ED	7.85'	SOLID COVER
LP - 125	23.97	EL. 19.00	15.00	INV. NW = 17.30 INV. SE = 17.30	10' Ø SLAB TOP LP x 4' ED	8.97'	SOLID COVER
LP - 126	24.36	EL. 19.00	15.00	INV. NW = 17.10	10' Ø SLAB TOP LP x 4' ED	9.36'	SOLID COVER
LP - 127	24.28	EL. 13.50	9.50	INV. SE = 12.30	10' Ø SLAB TOP LP x 4' ED	14.78'	SOLID COVER
LP - 128	24.00	EL. 13.50	9.50	INV. S = 12.50 INV. NW = 12.50	10' Ø SLAB TOP LP x 4' ED	14.50'	SOLID COVER
LP - 129	13.96	EL. 13.50	9.50	INV. NW = 12.50 INV. SE = 12.50	10' Ø SLAB TOP LP x 4' ED	4.46'	SOLID COVER
LP - 130	13.76	EL. 13.50	9.50	INV. NW = 12.30	10' Ø SLAB TOP LP x 4' ED	4.26'	SOLID COVER

NO.	DATE:	REVISIONS:	BY:
1	11-14-2019	GENERAL REVISION	GEO

P.E. SEAL AND SIGNATURE

STRUCTURE TABLES 1
FOR
WAINSCOTT COMMERCIAL CENTER
SITUATED AT
EAST HAMPTON
TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

NELSON & POPE
ENGINEERS & SURVEYORS
572 WALT WHITMAN ROAD, MELVILLE, N.Y. 11747
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PROJECT NO.:	17071
DRAWN BY:	GEO
CHECKED BY:	VB
DATE:	DECEMBER, 2017
SCALE:	NONE
FILE NO.:	--
CADD:	17071 PM.DWG
DRAWING NO.:	C-106
SHEET NO.:	6 OF 7

G:\projects\17071\PRELIM\NAR\17071 PM.dwg, 8 OF 7 STRUCTURE TABLES 1, 11/14/2019 8:07:44 AM, DWG To PDF.pc3

Pipe Table				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe - (1)	15"	30.00'	1.67%	CPP
Pipe - (2)	15"	30.00'	1.67%	CPP
Pipe - (3)	15"	29.92'	1.67%	CPP
Pipe - (4)	15"	29.95'	1.67%	CPP
Pipe - (5)	15"	30.00'	1.67%	CPP
Pipe - (6)	15"	30.00'	0.00%	CPP
Pipe - (7)	15"	30.00'	3.33%	CPP
Pipe - (8)	15"	30.00'	1.67%	CPP
Pipe - (9)	15"	16.00'	-1.25%	CPP
Pipe - (10)	15"	16.76'	-1.19%	CPP
Pipe - (11)	15"	16.76'	1.19%	CPP
Pipe - (12)	15"	16.00'	1.25%	CPP
Pipe - (13)	15"	16.00'	-1.25%	CPP
Pipe - (14)	15"	16.76'	-4.18%	CPP
Pipe - (15)	15"	16.76'	1.19%	CPP
Pipe - (16)	15"	16.00'	8.03%	CPP
Pipe - (17)	15"	16.00'	-1.25%	CPP
Pipe - (18)	15"	16.76'	-30.10%	CPP
Pipe - (19)	15"	16.76'	30.10%	CPP
Pipe - (20)	15"	16.00'	1.25%	CPP
Pipe - (21)	15"	16.00'	-1.25%	CPP
Pipe - (22)	15"	16.76'	-1.19%	CPP
Pipe - (23)	15"	16.76'	1.19%	CPP
Pipe - (24)	15"	16.00'	1.25%	CPP
Pipe - (25)	15"	16.00'	-1.25%	CPP

Pipe Table				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe - (26)	15"	16.77'	-1.19%	CPP
Pipe - (27)	15"	16.78'	1.19%	CPP
Pipe - (28)	15"	16.00'	1.25%	CPP
Pipe - (29)	15"	16.00'	-1.25%	CPP
Pipe - (30)	15"	16.80'	-1.19%	CPP
Pipe - (31)	15"	16.73'	1.20%	CPP
Pipe - (32)	15"	16.00'	1.25%	CPP
Pipe - (33)	15"	16.00'	-1.25%	CPP
Pipe - (34)	15"	16.76'	-1.19%	CPP
Pipe - (35)	15"	16.76'	1.19%	CPP
Pipe - (36)	15"	16.00'	1.25%	CPP
Pipe - (37)	15"	16.00'	-1.25%	CPP
Pipe - (38)	15"	16.75'	-1.19%	CPP
Pipe - (39)	15"	30.00'	1.67%	CPP
Pipe - (40)	15"	16.76'	1.19%	CPP
Pipe - (41)	15"	16.00'	1.25%	CPP
Pipe - (42)	15"	16.76'	1.19%	CPP
Pipe - (43)	15"	16.00'	1.25%	CPP
Pipe - (62)	15"	30.00'	1.67%	CPP
Pipe - (44)	15"	16.76'	1.19%	CPP
Pipe - (45)	15"	16.00'	1.25%	CPP
Pipe - (46)	15"	16.76'	1.19%	CPP
Pipe - (47)	15"	16.00'	1.25%	CPP
Pipe - (64)	15"	30.00'	1.67%	CPP
Pipe - (48)	15"	16.76'	1.19%	CPP

Pipe Table				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe - (49)	15"	16.00'	1.25%	CPP
Pipe - (50)	15"	16.76'	1.19%	CPP
Pipe - (51)	15"	16.00'	1.25%	CPP
Pipe - (65)	15"	30.00'	1.67%	CPP
Pipe - (52)	15"	16.76'	1.19%	CPP
Pipe - (53)	15"	16.00'	-1.22%	CPP
Pipe - (54)	15"	16.76'	1.19%	CPP
Pipe - (55)	15"	16.00'	1.25%	CPP
Pipe - (66)	15"	30.00'	1.67%	CPP
Pipe - (56)	15"	16.76'	1.19%	CPP
Pipe - (57)	15"	16.00'	1.25%	CPP
Pipe - (58)	15"	16.76'	1.19%	CPP
Pipe - (59)	15"	16.00'	1.25%	CPP
Pipe - (67)	15"	30.00'	1.67%	CPP
Pipe - (60)	15"	16.76'	1.19%	CPP
Pipe - (61)	15"	16.00'	1.25%	CPP
Pipe - (63)	15"	16.76'	1.19%	CPP
Pipe - (68)	15"	16.00'	1.25%	CPP
Pipe - (69)	15"	30.00'	-1.67%	CPP
Pipe - (70)	15"	16.76'	-1.19%	CPP
Pipe - (71)	15"	16.00'	-1.25%	CPP
Pipe - (72)	15"	16.76'	-1.19%	CPP
Pipe - (73)	15"	16.00'	-1.25%	CPP
Pipe - (74)	15"	29.96'	1.67%	CPP
Pipe - (75)	15"	16.77'	1.19%	CPP

Pipe Table				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe - (76)	15"	16.00'	1.25%	CPP
Pipe - (77)	15"	16.76'	1.19%	CPP
Pipe - (78)	15"	16.00'	1.25%	CPP
Pipe - (97)	15"	30.00'	1.67%	CPP
Pipe - (98)	15"	16.76'	1.19%	CPP
Pipe - (79)	15"	16.00'	1.25%	CPP
Pipe - (100)	15"	16.76'	-1.19%	CPP
Pipe - (101)	15"	16.00'	1.25%	CPP
Pipe - (102)	15"	30.00'	1.67%	CPP
Pipe - (80)	15"	16.76'	1.19%	CPP
Pipe - (81)	15"	16.00'	1.25%	CPP
Pipe - (82)	15"	16.76'	1.19%	CPP
Pipe - (83)	15"	16.00'	1.25%	CPP
Pipe - (103)	15"	29.90'	1.67%	CPP
Pipe - (84)	15"	16.77'	1.19%	CPP
Pipe - (85)	15"	16.00'	1.25%	CPP
Pipe - (86)	15"	16.77'	1.19%	CPP
Pipe - (87)	15"	16.00'	1.25%	CPP
Pipe - (88)	15"	30.01'	1.67%	CPP
Pipe - (89)	15"	16.76'	1.19%	CPP
Pipe - (90)	15"	16.00'	1.25%	CPP
Pipe - (91)	15"	16.76'	1.19%	CPP
Pipe - (92)	15"	16.00'	1.25%	CPP
Pipe - (104)	15"	29.95'	1.67%	CPP
Pipe - (93)	15"	16.77'	1.19%	CPP

STRUCTURE ID	GRATE / COVER ELEVATION	INVERT	TYPE OF STRUCTURE
CB-1	32.74	INV. N = 28.70	CB TYPE 3
CB-2	32.73	INV. S = 28.20 INV. NE = 27.40	CB TYPE 3
CB-3	20.96	INV. N = 16.50	CB TYPE 3
CB-4	21.46	INV. S = 16.00 INV. NE = 15.50 INV. W = 15.50	CB TYPE 3
CB-5	16.69	INV. N = 12.50	CB TYPE 3
CB-6	17.00	INV. S = 12.00 INV. NE = 11.50 INV. W = 11.50	CB TYPE 3
CB-7	16.60	INV. N = 12.50	CB TYPE 3
CB-8	16.60	INV. S = 12.00 INV. NE = 11.50 INV. W = 11.50	CB TYPE 3
CB-9	17.00	INV. N = 12.50	CB TYPE 3
CB-10	16.60	INV. S = 12.00 INV. NE = 11.50 INV. W = 11.50	CB TYPE 3
CB-11	16.47	INV. NW = 12.50	CB TYPE 3
CB-12	16.47	INV. SE = 12.50 INV. NE = 15.85 INV. W = 15.85	CB TYPE 3
CB-13	16.97	INV. NW = 12.50	CB TYPE 3
CB-14	17.00	INV. NE = 12.00 INV. W = 11.50 INV. SE = 11.50	CB TYPE 3
CB-15	17.08	INV. E = 13.00	CB TYPE 3
CB-16	17.08	INV. W = 12.50 INV. SE = 12.00 INV. N = 12.00	CB TYPE 3
CB-17	17.08	INV. E = 13.00	CB TYPE 3
CB-18	17.08	INV. W = 12.50 INV. SE = 12.00 INV. N = 12.00	CB TYPE 3
CB-19	17.08	INV. NE = 13.00	CB TYPE 3
CB-20	17.08	INV. SW = 12.50 INV. SE = 12.00 INV. N = 12.00	CB TYPE 3
CB-21	17.08	INV. NE = 13.00	CB TYPE 3
CB-22	17.08	INV. SW = 12.50 INV. SE = 12.00 INV. N = 12.00	CB TYPE 3
CB-23	17.08	INV. NE = 13.00	CB TYPE 3
CB-24	17.08	INV. SW = 12.50 INV. SE = 12.00 INV. N = 12.00	CB TYPE 3
CB-25	17.08	INV. NE = 13.00	CB TYPE 3

STRUCTURE ID	GRATE / COVER ELEVATION	INVERT	TYPE OF STRUCTURE
CB-26	17.08	INV. SW = 12.50 INV. SE = 12.00 INV. N = 12.00	CB TYPE 3
CB-27	17.08	INV. NE = 13.00	CB TYPE 3
CB-28	17.08	INV. SW = 12.50 INV. SE = 12.00 INV. NW = 12.00	CB TYPE 3
CB-29	20.55	INV. NE = 15.00	CB TYPE 3
CB-30	20.55	INV. SW = 14.50 INV. E = 14.00 INV. NW = 14.00	CB TYPE 3
CB-31	22.31	INV. NE = 19.00	CB TYPE 3
CB-32	22.31	INV. SW = 18.50 INV. NW = 18.00 INV. E = 18.00	CB TYPE 3
CB-33	31.95	INV. W = 27.50	CB TYPE 3
CB-34	31.95	INV. E = 27.00 INV. S = 26.50 INV. NW = 26.50	CB TYPE 3
CB-35	28.41	INV. W = 23.50 INV. NE = 23.00 INV. S = 23.00	CB TYPE 3
CB-36	28.42	INV. E = 24.00	CB TYPE 3
CB-37	22.50	INV. NW = 17.50 INV. NE = 17.00 INV. S = 17.00	CB TYPE 3
CB-38	22.55	INV. SE = 18.00	CB TYPE 3
CB-39	16.57	INV. NW = 12.00 INV. E = 11.50 INV. SW = 11.50	CB TYPE 3
CB-40	16.57	INV. SE = 12.50	CB TYPE 3
CB-41	16.68	INV. NE = 12.50	CB TYPE 3
CB-42	16.68	INV. SW = 12.00 INV. SE = 11.50 INV. N = 11.50	CB TYPE 3
CB-43	16.69	INV. E = 12.50	CB TYPE 3
CB-44	16.69	INV. W = 12.00 INV. SE = 11.50 INV. N = 11.50	CB TYPE 3
CB-45	16.69	INV. E = 12.50	CB TYPE 3
CB-46	16.69	INV. W = 12.00 INV. SE = 11.50 INV. N = 11.50	CB TYPE 3
CB-47	16.69	INV. E = 12.50	CB TYPE 3
CB-48	16.69	INV. W = 12.00 INV. SE = 11.50 INV. N = 11.50	CB TYPE 3
CB-49	16.69	INV. E = 12.50	CB TYPE 3
CB-50	16.69	INV. W = 12.00 INV. SE = 11.50 INV. N = 11.50	CB TYPE 3

Pipe Table				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe - (94)	15"	16.00'	1.25%	CPP
Pipe - (95)	15"	16.78'	1.19%	CPP
Pipe - (96)	15"	16.00'	1.25%	CPP
Pipe - (105)	15"	30.00'	1.67%	CPP
Pipe - (99)	15"	16.76'	1.19%	CPP
Pipe - (106)	15"	16.00'	1.25%	CPP
Pipe - (107)	15"	16.76'	1.19%	CPP
Pipe - (108)	15"	16.00'	1.25%	CPP
Pipe - (109)	15"	29.95'	1.67%	CPP
Pipe - (110)	15"	16.77'	1.19%	CPP
Pipe - (111)	15"	16.00'	1.25%	CPP
Pipe - (112)	15"	16.77'	1.19%	CPP
Pipe - (113)	15"	16.00'	1.25%	CPP
Pipe - (114)	15"	30.00'	-1.67%	CPP
Pipe - (115)	15"	16.76'	-1.19%	CPP
Pipe - (116)	15"	16.00'	-1.25%	CPP
Pipe - (117)	15"	16.76'	1.19%	CPP
Pipe - (118)	15"	16.00'	1.25%	CPP
Pipe - (119)	15"	30.00'	1.67%	CPP
Pipe - (120)	15"	16.76'	1.19%	CPP
Pipe - (121)	15"	16.00'	1.25%	CPP
Pipe - (122)	15"	16.76'	1.19%	CPP
Pipe - (123)	15"	16.00'	1.25%	CPP
Pipe - (124)	15"	29.96'	1.67%	CPP
Pipe - (125)	15"	16.76'	1.19%	CPP

Pipe Table				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe - (126)	15"	16.00'	1.25%	CPP
Pipe - (127)	15"	16.78'	1.19%	CPP
Pipe - (128)	15"	16.00'	1.25%	CPP
Pipe - (129)	15"	29.95'	1.67%	CPP
Pipe - (130)	15"	16.78'	1.19%	CPP
Pipe - (131)	15"	16.00'	1.25%	CPP
Pipe - (132)	15"	16.78'	1.19%	CPP
Pipe - (133)	15"	16.00'	1.25%	CPP
Pipe - (134)	15"	29.92'	1.67%	CPP
Pipe - (135)	15"	16.79'	1.19%	CPP
Pipe - (136)	15"	16.00'	1.25%	CPP
Pipe - (137)	15"	16.78'	1.19%	CPP
Pipe - (138)	15"	16.00'	1.25%	CPP
Pipe - (157)	15"	30.00'	1.67%	CPP
Pipe - (139)	15"	16.76'	1.19%	CPP
Pipe - (140)	15"	16.00'	1.25%	CPP
Pipe - (141)	15"	16.76'	1.19%	CPP
Pipe - (142)	15"	16.00'	1.25%	CPP
Pipe - (158)	15"	29.96'	1.67%	CPP
Pipe - (143)	15"	16.76'	1.19%	CPP
Pipe - (144)	15"	16.00'	1.25%	CPP
Pipe - (145)	15"	16.76'	1.19%	CPP
Pipe - (146)	15"	16.00'	1.25%	CPP
Pipe - (159)	15"	29.97'	1.67%	CPP
Pipe - (147)	15"	16.78'	1.19%	CPP

Pipe Table				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe - (148)	15"	16.00'	1.25%	CPP
Pipe - (149)	15"	16.76'	1.19%	CPP
Pipe - (150)	15"	16.00'	1.25%	CPP
Pipe - (160)	15"	29.93'	1.67%	CPP
Pipe - (151)	15"	16.76'	1.19%	CPP
Pipe - (152)	15"	16.00'	1.25%	CPP
Pipe - (153)	15"	16.76'	1.19%	CPP
Pipe - (154)	15"	16.00'	1.25%	CPP
Pipe - (155)	15"	30.00'	1.67%	CPP
Pipe - (156)	15"	16.76'	2.98%	CPP
Pipe - (161)	15"	16.00'	1.25%	CPP
Pipe - (162)	15"	16.76'	2.98%	CPP
Pipe - (163)	15"	16.00'	1.25%	CPP

STRUCTURE ID	GRATE / COVER ELEVATION	INVERT	TYPE OF STRUCTURE
CB-51	16.69	INV. E = 12.50	CB TYPE 3
CB-52	16.69	INV. W = 12.00 INV. SE = 11.50 INV. N = 11.50	CB TYPE 3
CB-53	16.69	INV. E = 12.50	CB TYPE 3
CB-54	16.69	INV. W = 12.00 INV. SE = 11.50 INV. N = 11.50	CB TYPE 3
CB-55	16.69	INV. NE = 12.50	CB TYPE 3
CB-56	16.69	INV. SW = 12.00 INV. SE = 11.50 INV. N = 11.50	CB TYPE 3
CB-57	16.72	INV. NE = 12.50	CB TYPE 3
CB-58	16.72	INV. SW = 12.00 INV. SE = 11.50 INV. N = 11.50	CB TYPE 3
CB-59	17.06	INV. NE = 13.00	CB TYPE 3
CB-60	17.06	INV. SW = 12.50 INV. SE = 12.00 INV. N = 12.00	CB TYPE 3
CB-61	22.90	INV. NE = 18.50	CB TYPE 3
CB-62	22.90	INV. SW = 18.00 INV. SE = 17.50 INV. N = 17.50	CB TYPE 3
CB-63	23.25	INV. NE = 14.00	CB TYPE 3
CB-64	23.25	INV. SW = 13.50 INV. SE = 13.00 INV. N = 13.00	CB TYPE 3
CB-65	16.00	INV. NW = 11.50	CB TYPE 3
CB-66	16.00	INV. SE = 11.00 INV. NE = 10.50 INV. W = 10.50	CB TYPE 3

NO.	DATE:	REVISIONS:	BY:
1	11-14-2019	GENERAL REVISION	GEO

P.E. SEAL AND SIGNATURE

STRUCTURE TABLES 2
FOR
WAINSCOTT COMMERCIAL CENTER
SITUATED AT
EAST HAMPTON
TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

NELSON & POPE
ENGINEERS & SURVEYORS
572 WALT WHITMAN ROAD, MELVILLE, N.Y. 11747
PHONE (631) 427-5665 FAX (631) 427-5620
WWW.NELSONPOPE.COM

PROJECT NO.:	17071
DRAWN BY:	GEO
CHECKED BY:	VB
DATE:	DECEMBER, 2017
SCALE:	NONE
FILE NO.:	--
CADD:	17071 PM.DWG
DRAWING NO.:	C-107
SHEET NO.:	7 OF 7

G:\projects\17071\PRELIMINARY\17071 PM.dwg, 7 OF 7 STRUCTURE TABLES 2, 11/14/2019 6:07:37 AM,
DWG TO PDF.pc3

APPENDIX A-3

FINAL SCOPE

TOWN OF EAST HAMPTON

300 Pantigo Place - Suite 103
East Hampton, New York 11937-2684

Planning Board

(631) 324-2696

RECEIVED
JAN 14 2019 CN SS
NELSON & POPE

January 8, 2019

David Eagan
SVP Development
P.O. Box 1259
Wainscott, NY 11975

Re: Wainscott Commercial Center Preliminary Subdivision
SCTM #300-192-2-6.2, 6.3, 6.4, 6.5, 6.6, 6.7

Dear Mr. Eagan:

The East Hampton Town Planning Board reviewed your application at its January 7, 2019 meeting.

Attached is a copy of the planning department's review of the information submitted for your application. The planning board had the following additional comments:

- The board agrees to the final scoping for the Draft Environmental Impact Statement.

If you have any questions or concerns, please contact the planning board committee member for your project, Randall T. Parsons, or contact the planner assigned to the project.

Sincerely,

Samuel Kramer
Chairman

JP/jtw
Enc.
cc: Planning Department

RECEIVED
JAN - 8 2019
EAST HAMPTON
TOWN CLERK

PLANNING BOARD OF THE TOWN OF EAST HAMPTON
EAST HAMPTON, NEW YORK

RECEIVED
JAN - 8 2019
PLANNING BOARD

In the Matter of the Application
WAINSCOTT COMMERCIAL CENTER
PRELIMINARY SUBDIVISION
SCTM #300-192-2-6.2 TO 6.7

ACCEPT FINAL SCOPE

ADOPTED: 1 / 7 / 19

RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF EAST HAMPTON ADOPTING THE FINAL SCOPE FOR THE DRAFT ENVIRONMENTAL IMPACT STATEMENT OF THE PRELIMINARY SUBDIVISION APPLICATION ENTITLED "WAINSCOTT COMMERCIAL CENTER"

WHEREAS, the Planning Board of the Town of East Hampton ("Planning Board") received an application to subdivide a roughly 70-acre parcel into 50 lots with most lots ~1 acre in size and the southernmost lots (#21 & #22) to be ~4.5 acres in size and contain an existing ready-mix concrete plant and to be ~6.5 acres in size and contain an existing masonry and tile supply yard, respectively.

WHEREAS, on June 14, 2018 the Planning Board declared its intent to act as the lead agency in connection with the application under Section 8-0101, et. seq., of the Environmental Conservation Law ("SEQRA") and the regulations promulgated by the New York State Department of Environmental Conservation there under, which appear at 6 N.Y.C.R.R. Part 617 ("SEQRA Regulations"); and

WHEREAS, the Planning Board thereafter: (i) declared lead agency status in connection with the SEQRA review of the Project, and commenced review of the proposed Project in accordance with 6 N.Y.C.R.R. 617.6(b)(3); (ii) determined that the proposed action may have a significant adverse effect on the environment and required that a Draft Environmental Impact Statement ("DEIS") be prepared; and

WHEREAS, the applicants, Wainscott Commercial Center, LLC, prepared and submitted a draft scope for the Draft Environmental Impact Statement (DEIS) for the Planning Board's review to determine its completeness and its adequacy for public review in accordance with 6 N.Y.C.R.R. 617.8; and

WHEREAS, the Planning Board determined that certain additional information should be included in the draft scope for the Draft Environmental Impact Statement (DEIS); and

WHEREAS, on January 7, 2019, the Planning Board held a meeting at which members of the public were allowed to speak about the proposed content of the draft scope and the Planning Board determined that the draft scope for the Draft Environmental Impact Statement (DEIS),

with addendums and revisions discussed at that meeting, was complete and in accordance with the identified potential adverse environmental impacts in the Environmental Assessment Form Parts I, II & III as well as the regulations promulgated by the New York State Department of Environmental Conservation there under, which appear at 6 N.Y.C.R.R. Part 617 ("SEQRA Regulations")

NOW, THEREFORE, BE IT RESOLVED, that the Planning Board of the Town of East Hampton determines that the draft scope for the Draft Environmental Impact Statement (DEIS), with addendums and revisions discussed at the meeting of January 7, 2019 is hereby adopted as the final scope; and be it further

RESOLVED, that the attached "Final Scope for the Draft Environmental Impact Statement (DEIS)" be filed, distributed and published in accordance with the SEQRA Regulations.

DATED: January 7, 2019

cc: David E. Eagan, SVP Development
Wainscott Commercial Center LLC
30 Montauk Highway
PO Box 1259
Wainscott, NY 11975

Charles J. Voorhis, CEP, AICP
Nelson, Pope & Voorhis, LLC
572 Walt Whitman Road
Melville, NY 11747

RECEIVED
JAN - 8 2019
PLANNING BOARD

RECEIVED
JAN - 8 2019
EAST HAMPTON
TOWN CLERK

WAINSCOTT COMMERCIAL CENTER
SCOPE (Part 6 NYCRR 617.8)
DRAFT ENVIRONMENTAL IMPACT STATEMENT

The proposed action is a preliminary subdivision of 70.511 acres of a reclaimed sand and gravel mine into 50 commercial (CI zoned) lots ranging in size from 40,000 sq. ft. -260, 732 sq. ft. One of the proposed lots (lot 21; 180, 364 sq. ft.) will contain an existing ready mix plant and another lot (lot 22; 260,732 sq. ft.) will contain an existing masonry and title supply yard. The subdivisio n will include buffer areas aggregating 331,598 sq. ft. (7.61 acres) located adjacent to residential areas located to the west and east of the site. The subdivision's proposed infrastructure will also include 291,891 sq. ft. (6.71 acres) of roads and underground uti li ties, including public water and natural gas lines.

The subject premises are located in the Hamlet of Wainscott, in the Town of East Hampton, Suffolk County, New York, and are comprised of six existing commercial (CI zoned) lots ranging from 4.06 acres to 37.96 acres identified as SCTM#s: 300-192-6.2, 6-3, 6-4, 6-5, 6.6 and 6.7. The subject premises are owned by Wainscott Commercial Center LLC and its affiliates.

Identified Potential Significant Adverse Environmental Impacts

Potential significant adverse impacts have been identified by the lead agency (the East Hampton Town Planning Board) in its EAF, Part II, on the following resources[1]:

1. **Impact on Land**- specifically, the proposed action: (a) may involve construction on land where depth to the water table is less than 3 ft.; (b) may involve construction on slopes greater than 15% ; and (e) may involve the potential construction on approved lots that will be developed over many years, if not decades.

3. **Impacts of Surface Waters** - specifically, the proposed action: (i) may affect the water quality of Georgica Pond; U) may involve the application of pesticides or herbicides in or around Georgica Pond; and (k) may require the construction of a new wastewater treatment facility.

4. **Impact on Groundwater** - specifically, the proposed action: (a) may require new water supply wells, or create additional demand on supplies from existing water supply wells; (b) may require water supply demand in excess of the safe and sustainable withdrawal capacity of the local supply or aquifer; (d) may include wastewater discharged to groundwater; (e) may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated; (f) may require the bulk storage of petroleum or chemical

---

1 All number references are to the Section numbers of the EAF, Part II dated October 24, 2018, prepared by the East Hampton Town Planning Board with respect to the proposed action i n its capacity as Lead Agency under the New York State Environmental Quality Review Act.

products over ground- water or an aquifer; and (g) may involve the application of pesticides within I 00 feet of potable drinking water or irrigation sources.

11. **Impact on Open Space and Recreation** - specifically, the proposed action: (a) may result in the impairment of natural functions or "ecosystem services" provided by an undeveloped area; (b) may result in the loss of a future recreational resource; and (c) may result in the elimination of open space or recreational resource in an area with few such resources.

12. **Impact on Critical Environmental Areas** - specifically, the proposed action: (a) may result in the reduction of quantity of groundwater in the groundwater protection area located to the north of the site and/or to the water recharge overlay district located to the east of the site; and (b) may result in the reduction of quality of groundwater in one or both of such adjacent Critical Environmental Areas.

13. **Impact on Transportation** - specifically, the proposed action: (a) may result in traffic that may exceed capacity of existing road network; (b) may result in a paved parking area for 500 or more vehicles; and (e) alter the present pattern of movement of people or goods.

14. **Impact on Energy** - specifically, the proposed action: (a) may require a new, or an upgrade to an existing, substation; (b) may require the creation or extension of an energy transmission system to supply a commercial or industrial use; (c) may utilize more than 2,500 MWhrs per year of electricity; and (d) may involve heating and/or cooling on more than I 00,000 square feet of building area when completed.

15. **Impact on Noise, Odor and Light** - specifically, the proposed action: (a) may produce sound above noise levels established by local regulation; (c) may result in routine odors for more than one hour per day; (d) may result in light shining onto adjoining properties; and (e) may result in light sky-glow brighter than existing area conditions.

16. **Impact on Human Health**- specifically, the proposed action: (a) is located within 1500 ft. of a private day care center located on Industrial Road and a group home located on Wainscott Northwest Road; (c) is located on, and adjacent to, a site where a completed spilled remediation has occurred; (f) may not have adequate control measures in place to ensure that future generation, treatment and /or disposal of hazardous wastes will be protective of the environment and human health; (h) may result in the unearthing of solid or hazardous wastes; and (l) may result in the release of contaminated leachate from the project site.

17. **Consistency with Community Plans**- specifically, the proposed action: (a) may have land use components different from, or in sharp contrast to, current land use patterns; and (c) may be inconsistent with local land use plans or zoning regulations.

18. **Consistency with Community Character**- specifically, the proposed action (b) may create demand for additional community services (e.g. schools, police and fire) and (e) may be inconsistent with the predominate architectural scale and character.

Identified Potential Impacts on the Environment Deemed Not To Be Significant

The lead agency's EAF, Part II also determined that the potential environmental impacts to the following resources would not be significant:

2. Impact on Geological Features

5. Impact on Flooding

6. Impacts on Air

7. Impacts on Plants and Animals

8. Impact on Agricultural Resources

9. Impact on Aesthetic Resources

10. Impact on Historic and Archeological Resources

Information Needed to Address Identified Potential Significant Adverse Impacts on the Environment

Generally, the project sponsor proposes to use existing public information to prepare the DEIS, including information comprising part of its Application, surveys, test holes, studies (including various East Hampton Town Studies), sampling data, data bases and laws and regulations.

In addition, certain studies and sampling data will be prepared and analyzed by experts on behalf of Applicant in connection with the preparation of the DEIS, including a Hydrogeologic Investigation of the site and a Traffic Impact Study as described more fully below.

Potential Groundwater and Surface Water Impacts

With respect to potential groundwater and surface water impacts (specifically, nearby Georgica Pond), the project sponsor will undertake a Hydrogeologic Investigation of the proposed site by AlphaGeoscience, 679 Plank Road, Clifton Park, New York 12065. The objectives of the Hydrogeologic Investigation are: (i) to describe the soil material at the site; (ii) to determine the depth to the water beneath the site; (iii) to assess the relationship of the water table beneath the site to Georgica Pond and to the surrounding community (i.e., to determine groundwater flow direction and flow rate); (iv) to evaluate the quality of the ground water; and (v) to assess the significance of the water quality as it relates to the site, the surrounding area and the proposed action.

The DEIS will also identify past and current uses at the site.

The soil and groundwater testing will be conducted in conformance with protocol approved by both the New York State Department of Environmental Conservation (NYDEC) and/or the Suffolk County Department of Health Services (SCDHS) as both are involved agencies under the State Environmental Quality Review Act (SEQRA). The Town of East Hampton Planning Board also reserves the right to have the same examined by its engineering staff, the Planning Department, the Natural Resources Department and any other entity as necessary and will approve the final testing protocol for the DEIS.

The DEIS will also contain storm water run-off calculations for the entire subdivision based upon proposed final grades for the site to ensure compliance within the East Hampton Town Code requirement that all storm water run-off generated at the site remain contained on the property through adequate drainage control structures.

The DEIS will also contain an analysis of whether the additional sanitary flow from the approved lots can be adequately addressed by SCDHS and Town Code mandated advance nitrogen reduction systems on each individual lot or by one or more community wastewater treatment facilities .

The DEIS will also contain an analysis of the potential demand for water usage to insure the availability of adequate supply from the Suffolk County Water Authority and to ensure the adequacy of the underground water mains to be installed under the internal roadways to be constructed in the proposed subdivision.

The DEIS will also analyze the proposed action 's consistency with The East Hampton Town Water Quality Improvement Plan (February 2017) and The East Hampton Town Trustees Water Quality Study (prepared by Christopher J. Gobler, PhD dated January 2017 , in each case as they relate to Georgica Pond.

Potential Transportation Impacts

With respect to potential traffic impacts, the project sponsor will undertake a Traffic Impact Study to be conducted by Dunn Engineering Associates, P.C., 66 Main Street, Westhampton Beach, NY 11978.

The Traffic Impact Study will include traffic counts commissioned by the Applicant in July, 2017, other publicly available traffic data and, where appropriate, estimated traffic counts determined pursuant to the current version of the ITE Manual.

The Traffic Impact Study will consider the proposed action's impact on traffic traveling on Montauk Highway, Daniels Hole Road, Wainscott Stone Road, Wainscott Northwest Road, Industrial Road and residential streets located in neighboring residential neighborhoods to the north and south of the site.

It will also consider the following potential traffic access points: (i) Old Montauk Highway/Montauk Highway (an existing access), (ii) Georgica Drive (and existing access), (iii) Wainscott Northwest Road (a potential access located at the northwest comer of the subject premises), and (iv) Hedges Lane (a potential access located at the northeast corner of the subject premises connecting to Daniels Hole Road).

Finally, the Traffic Impact Study will identify and analyze possible traffic impact mitigation measures, including alternative design elements such as one on more traffic circles on Montauk Highway proposed by the draft East Hampton Hamlet Report-Wainscott, dated January 30, 2018 (the "Draft Wainscott Hamlet Report").

Initial Identification of Mitigation Measures

At this stage, mitigation measures under consideration include the following: (i) elimination, by covenant and restriction of certain high impact, inappropriate commercial industrial uses currently allowed as-of-right or by special permit at the site in the East Hampton Town Code's Commercial Use Table; (ii) alternative access configurations, including the four access points identified in the preceding paragraph; (iii) installation of underground utilities, including public water and natural gas lines; (iv) the prohibition of bulk storage of all petroleum products, chemicals and hazardous substances;
(v) covenants making the Planning Board's Groundwater Protection Policy applicable to all structures introduced to the site; (vi) use of custom soil mixes (including bio-retention soil mixes) and selected landscaping (including, "rain gardens") to improve the absorption and filtration of storm water and appearance of the site; (vii) elimination by covenant and restriction of the use of synthetic fertilizers and pesticides and herbicides anywhere on the site; (viii) the providing of buffer areas adjacent to residential areas located west and east of the site; (ix) additional screening from residential areas, particularly those located on the western side of Hedges Lane; (x) alternative subdivision configurations (including, layouts,

clustering of developments with open space set aside, and density); **(xi)**

relocation and reconstruction of existing ready-mix plant; (xii) architectural standards for buildings introduced to the site; and (xiii) potential purchase of more or more lots by the Town or other governmental bodies or agencies for open space, cultural or recreational uses.

PROPOSED SCOPE OF DEIS

A. Potential Significant Adverse Environmental Impacts on Land

The DEIS will contain a profile of the depth of groundwater on the site based upon the analysis of data collected by the one existing and seven new monitoring wells recently installed on the site and the other groundwater testing and monitoring wells installed for the preparation of this DEIS and EIS.

The DEIS will contain proposed final grades for the site so it may be determined whether any proposed future construction would occur on slopes of 15% or greater.

The DEIS will contain an integrated plan (including timing and sequencing) of all necessary improvements for the subdivision, including: adequate drainage facilities, final grading; wastewater treatment; paving of streets and fire protection.

The DEIS will also contain proposed site plans for the two proposed lots containing the pre-existing ready mix plant and masonry and title supply yard.

Potential Significant Adverse Environmental Impacts on Water

(i) Surface Water Resources.

It is undetermined at this point whether or not there are surface waters on the site and the DEIS should include this determination. There are no Town, NYDEC or Federal designated wetlands located on the site and no part of the site is not located within the "jurisdiction" of any such wetland. There are no other natural features on the site which are protected by the East Hampton Town Zoning Code.

The most northwestern point of Georgica Pond is located in close proximity {approximately 1,100 feet) of the southwest comer of the site. Georgica Pond (a coastal lagoon) is known to be impaired and has recently been the site of harmful algal blooms. Georgica Pond has suffered greatly from various contamination sources and the Planning Board considers any potential for adverse impacts to this water body significant. The project site improvements and any surface or subsurface discharges could adversely impact the ground water moving into the pond, and thereby affecting the pond and its environs. The DEIS will also contain an inventory of flora and fauna within and in close proximity to Georgica Pond.

The DEIS will contain an analysis of the proposed subdivision's potential impact to Georgica Pond's water quality and will include the information described in Information Needed to Address Identified Potential Significant Adverse Impacts on the Environment -

Potential Groundwater and Surface Water Impacts described above and will explore alternatives which mitigate any potential significant adverse environmental impacts.

(ii) <u>Groundwater Resources.</u>

The site is a reclaimed sand and gravel mine that lies within Suffolk County Department of Health Services Groundwater Management Zone V. Excavation of the former sand and gravel mine extended into the ground water creating a pond on a portion of the site. This pond and much of the rest of the site, has long since been filled with clean sand and stone pursuant to completed Reclamation Plan approved and overseen by the New York State Department of Environmental Conservation.

There have been various uses and other activities on the site over the past decades. The DEIS will identify all such uses and activities.

Being is such close proximity to Georgica Pond there is a significant potential for impairment of this water body through groundwater flow should there be contaminates on-site. Seventy-five gallons of waste oil/used oil was reportedly spilled on the site in 1989. This warrants comprehensive soil and groundwater testing throughout the site to insure that there is no significant adverse impacts to Georgica Pond.

The DEIS will contain an analysis of the proposed subdivision's potential impact on Groundwater at the site and will include the information described in <u>Information Needed to Address Identified Potential Significant Adverse Impacts on the Environment - *Potential Groundwater and Surface Water Impacts above*</u>, including groundwater and soil sampling described therein and will explore alternatives which mitigate any potential significant adverse environmental impacts.

The DEIS will contain an analysis of future water demand to ensure that recently created Wainscott Water District and water mains installed on the site will insure adequate water supply to the site. The DEIS will also contain an analysis of future wastewater discharges.

B. Potential Significant Adverse Environmental Impacts Impact on Open Space and <u>Recreation</u>

The site is more than 3 times the size of the existing Wainscott business area and therefore will have a large impact on the future of Wainscott. The Draft Wainscott Hamlet Plan contains an "Illustrative Master Plan" for Wainscott's central business district which incorporates the southern end of the site into a possible village style redevelopment area off Montauk Highway. It also contains "Conceptual Framework" with representative future uses for the remainder of the site, including a large park representing approximately 60% of the site.

The DEIS will analyze whether the proposed subdivision of the site will eliminate the potential for this future recreational resource and the impact of any such elimination.

The DEIS will also analyze whether the proposed action result in an impairment of natural functions or "ecosystems" provided by the present undeveloped portion of the

site, including on storm water storage, nutrient recycling and wildlife habitat.

C. **Potential Significant Adverse Environmental Impacts on Critical Environmental Areas.**

The site is not located within a Critical Environmental Area (CEA) as designated by the Town or other agency. However, the site borders:

(i) a Special Groundwater Protection Area designated by the Long Island Planning Commission located to the north/northwest of the site; and

(ii) a Water Recharge Overlay District designated by the Town of East Hampton located to the Northeast/East of the site.

The DEIS will analyze whether the proposed action will adversely impact either CEA in light of the direction flow of the horizontal groundwater under the site and will explore alternatives which mitigate any potential significant adverse environmental impacts.

D ~~E.~~ **Potential Significant Adverse Environmental Impacts Impact on Transportation**

The site is located adjacent to Montauk Highway (NY 27), the main and most heavily traveled road in Town and also borders roadways (Wainscott Northwest Road and Hedges Lane) which mainly service residential neighborhoods. The potential impact upon traffic for the proposed action is a significant concern.

The DEIS will contain an analysis of the proposed subdivision's potential impact on transportation and will include the information described in Information Needed to Address Identified Potential Significant Adverse Impacts on the Environment - *Potential Transportation Impacts* described above and will explore alternatives which mitigate any potential significant adverse environmental impacts.

The DEIS will also analyze whether the proposed action will degrade existing or proposed pedestrian or bicycle accommodations near the site as AS well emissions and traffic resulting from increased trip generation.

E ~~F.~~ **Potential Significant Adverse Environmental Impacts Impact on Energy**

Power and utilities will need to be extended throughout the subdivision to service the lots.

The DEIS will analyze the proposed action's impact on the creation or extension of energy transmission or supply system to service the commercial or industrial uses that maybe introduced at the site. The DEIS will analyze the impact on air quality and consistency with the Town's energy sustainability plan and will include an analysis of whether or not heating and cooling needs from potential future uses will adversely

F. ~~G.~~ **Potential Significant Adverse Environmental Impacts Impact on Noise, Odor and Light**

Noise levels in the Town are regulated by Chapter 185 of the East Hampton Town Code and the Planning Board has no authority to allow for activities which would exceed these levels.

The DEIS will analyze whether the proposed action will result in noise in excess of Town Code limits, particularly in the residential zoning districts bordering to the west and east of the site and will explore alternatives which mitigate any potential significant adverse environmental impacts.

Many commercial industrial uses can generate odors for more than one hour a day. The DEIS will consider if the proposed action will result in any such orders, particularly in the residential zoning districts bordering to the west and east of the site and will explore alternatives which mitigate any potential significant adverse environmental impacts.

The East Hampton Town Code contains numerous regulations pertaining to exterior lighting. Additionally, the Planning Board has adopted Guidelines for Exterior Lighting. Both seek to minimize unneeded lighting and help formulate efficient, unobtrusive lighting plans for commercial lighting which do not adversely impact adjacent residential and other non-commercial uses.

The DEIS will analyze whether the proposed action will result in added significant additional sky-glow and will explore alternatives which mitigate any potential significant adverse environmental impacts.

G. ~~H.~~ **Potential Significant Adverse Environmental Impacts Impact on Human Health**

The subject property is a reclaimed sand and gravel mine. There have been various uses and other activities on the site over the past decades including the existing ready -mix plant and the masonry and title supply yard. As with all intensive industrial uses the potential for soil and groundwater contamination is always present.

The Suffolk County Department of Health Services has recently found excess levels of iron and manganese in the groundwater of an active sand mine in Noyack, New York which the SCDHS has tied to a vegetative waste processing facility that was formally conducted on that site.

Additionally, the presence of Perfluorooactance sulfonate (PFOS), Perfluorootanic acid (PFOA) and related compounds in numerous private wells in southern Wainscott, including some wells near the site has prompted the Town to create the Wainscott Water District for the purposes of extending Suffolk County Water Authority water mains throughout that District, including along Old Montauk Highway (adjacent to the

SOUTHERN END OF THE SITE AND HEDGES LANE THERE

is an existing water main along Wainscott Northwest Road (adjacent to the western side of the site).

The DEIS will contain an analysis of the proposed subdivision's potential impact on Groundwater at the site and will include the information described in Information Needed to Address Identified Potential Significant Adverse Impacts on the Environment - *Potential Groundwater and Surface Water Impacts above*, including groundwater and soil sampling described therein. That analysis will also determine whether hazardous materials are present on the site and if a comprehensive plan for their safe removal and remediation of the site is required and will explore alternatives which mitigate any potential significant adverse environmental impacts.

The DEIS will consider also whether comprehensive control measures such as filed covenants and restrictions could help ensure protection from hazardous wastes associated with future lot development and use over and above those already available to the Planning Board in the site plan approval process each and every proposed use on the site will be required to obtain as a condition precedent to its introduction to the site.

H. ~~I.~~ Consistency with Community Plans

The proposed action is compliant with the Commercial Industrial (CI) zoning classification applicable to the entire site since the initial enactment of zoning regulations in East Hampton Town. No variances are required under the East Hampton Town Code to subdivide the site as proposed by the proposed action.

The Town Board is in the process of reviewing the Draft Wainscott Hamlet Report. The Draft Wainscott Hamlet Plan contains an "Illustrative Master Plan" for Wainscott's central business district which incorporates the southern end of the site into a possible village style redevelopment area off Montauk Highway and a "Conceptual Framework" with possible future uses for the remainder of the site, including a large park representing approximately 60% of the site and a new Wainscott LIRR station at the north end of the site

The DEIS will consider whether the proposed action is consistent with Community Plans, including the 2005 East Hampton Comprehensive Plan and the Draft Wainscott Hamlet Report.

The DEIS will also consider whether the proposed action is consistent with the existing Runway Protection Zone for Runway 16-34 at the East Hampton Town Airport located to the north of the Site and FAA Regulations with respect to such Runway Protection Zone (see, Letter from FAA to Mr. Porter, Chairman of the Planning Board, dated August 8, 2018).

Finally, the DEIS will also consider whether the proposed action may cause a density of development not supported by existing infrastructure or will require new or expanded infrastructure or may induce secondary development impacts (e.g., residential or

I ~~H~~. **Consistency With Community Character**

The site is located in the largest commercial industrial (CI) zone in the Town. The entire East Hampton Town Airport (including the adjacent East Hampton Town Industrial Park) is located north of the site separated by the Long Island Rail Road right-a-way. The existing Wainscott Central Business District (currently zoned commercial business (CB)) is located directly west of the site. There are high density A (40,000 sq. ft. minimum) and B (20,000 sq. ft. minimum) residentially zoned parcels to located to the west of the site (off the west side of Wainscott Northwest Rd.) and high density B (20,000 sq. ft.) residentially zoned parcels to located on Hedges Lane, a private road adjacent to the eastern border of the site.

The impact of fifty CI zoned lots (44 new lots) to Town services could be significant.

The DEIS will analyze whether the proposed action will create a demand for additional community services (e.g., schools, police and fire).

The DEIS will analyze whether the proposed action is inconsistent with the predominate architectural scale and character of the community surrounding the site.

J. ~~K~~. **Content Requirements**

The DEIS will include:

a cover sheet stating:
(i) whether it is a draft or final EIS;
(ii) the name or descriptive title of the action;
(iii) the location (county and town, village or city) and street address, if applicable, of the action;
(iv) the name and address of the lead agency and the contact information of a person at the agency who can provide further information;
(v) the names of individuals or organizations that prepared any portion of the statement;
(vi) the date of its acceptance by the lead agency; and
(vii) in the case of a draft EIS, the date by which comments must be submitted.

a table of contents following the cover sheet and a precise summary which adequately and accurately summarizes the statement.

the following elements will be included:

(i) a concise description of the proposed action, its purpose, public need and benefits, including social and economic considerations;
(ii)a concise description of the environmental setting of the areas to be affected,

sufficient to understand the impacts of the proposed action and alternatives;

(iii) a statement and evaluation of the potential significant adverse environmental impacts at a level of detail that reflects the severity of the impacts and the reasonable likelihood of their occurrence.

The draft EIS will identify and discuss the following impacts:

(a) reasonably related short-term and long-term impacts, cumulative impacts and other associated environmental impacts;
(b) those adverse environmental impacts that cannot be avoided or adequately mitigated if the proposed action is implemented;
(c) any irreversible and irretrievable commitments of environmental resources that would be associated with the proposed action should it be implemented;
(d) any growth-inducing aspects of the proposed action;
(e) impacts of the proposed action on the use and conservation of energy (for an electric generating facility, the statement must include a demonstration that the facility will satisfy electric generating capacity needs or other electric systems needs in a manner reasonably consistent with the most recent State energy plan);
(f) impacts of the proposed action on solid waste management and its consistency with the State or locally adopted solid waste management plan;
(g) impacts of public acquisitions of land or interests in land
(h) impacts of the proposed action on, and its consistency with, the comprehensive management plan for the special groundwater protection area program as implemented pursuant to article 55 or any plan subsequently ratified and adopted pursuant to article 57 of the Environmental Conservation Law for Nassau and Suffolk counties; and
(i) measures to avoid or reduce both an action's impacts on climate change and associated impacts due to the effects of climate change such as sea level rise and flooding.
(iv) a description of the mitigation measures;
(v) a description and evaluation of the range of reasonable alternatives to the action. Alternative plats including reduced density an open space plan and a plan which reflects the sketch provided in the draft Hamlet Study Report for the subject property will be included. A description and evaluation of each alternative will be at a level of detail sufficient to permit a comparative assessment of the alternatives discussed. The range of alternatives must include the no action alternative. The no action alternative discussion should evaluate the adverse or beneficial site changes that are likely to occur in the reasonably foreseeable future, in the absence of the proposed action.

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PLANNING BOARD

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EAST HAMPTON
TOWN CLERK

WAINSCOTT COMMERCIAL CENTER
SCOPE (Part 6 NYCRR 617.8)
DRAFT ENVIRONMENTAL IMPACT STATEMENT

The proposed action is a preliminary subdivision of 70.511 acres of a reclaimed sand and gravel mine into 50 commercial (CI zoned) lots ranging in size from 40,000 sq. ft. -260, 732 sq. ft. One of the proposed lots (lot 21; 180, 364 sq. ft.) will contain an existing ready mix plant and another lot (lot 22; 260,732 sq. ft.) will contain an existing masonry and title supply yard. The subdivisio n will include buffer areas aggregating 331,598 sq. ft. (7.61 acres) located adjacent to residential areas located to the west and east of the site. The subdivision's proposed infrastructure will also include 291,891 sq. ft. (6.71 acres) of roads and underground uti li ties, including public water and natural gas lines.

The subject premises are located in the Hamlet of Wainscott, in the Town of East Hampton, Suffolk County, New York, and are comprised of six existing commercial (CI zoned) lots ranging from 4.06 acres to 37.96 acres identified as SCTM#s: 300-192-6.2, 6-3, 6-4, 6-5, 6.6 and 6.7. The subject premises are owned by Wainscott Commercial Center LLC and its affiliates.

Identified Potential Significant Adverse Environmental Impacts

Potential significant adverse impacts have been identified by the lead agency (the East Hampton Town Planning Board) in its EAF, Part II, on the following resources[1]:

1. **Impact on Land**- specifically, the proposed action: (a) may involve construction on land where depth to the water table is less than 3 ft.; (b) may involve construction on slopes greater than 15% ; and (e) may involve the potential construction on approved lots that will be developed over many years, if not decades.

3. **Impacts of Surface Waters** - specifically, the proposed action: (i) may affect the water quality of Georgica Pond; U) may involve the application of pesticides or herbicides in or around Georgica Pond; and (k) may require the construction of a new wastewater treatment facility.

4. **Impact on Groundwater** - specifically, the proposed action: (a) may require new water supply wells, or create additional demand on supplies from existing water supply wells; (b) may require water supply demand in excess of the safe and sustainable withdrawal capacity of the local supply or aquifer; (d) may include wastewater discharged to groundwater; (e) may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated; (f) may require the bulk storage of petroleum or chemical

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1 All number references are to the Section numbers of the EAF, Part II dated October 24, 2018, prepared by the East Hampton Town Planning Board with respect to the proposed action i n its capacity as Lead Agency under the New York State Environmental Quality Review Act.

products over ground- water or an aquifer; and (g) may involve the application of pesticides within I 00 feet of potable drinking water or irrigation sources.

11. **Impact on Open Space and Recreation** - specifically, the proposed action: (a) may result in the impairment of natural functions or "ecosystem services" provided by an undeveloped area; (b) may result in the loss of a future recreational resource; and (c) may result in the elimination of open space or recreational resource in an area with few such resources.

12. **Impact on Critical Environmental Areas** - specifically, the proposed action: (a) may result in the reduction of quantity of groundwater in the groundwater protection area located to the north of the site and/or to the water recharge overlay district located to the east of the site; and (b) may result in the reduction of quality of groundwater in one or both of such adjacent Critical Environmental Areas.

13. **Impact on Transportation** - specifically, the proposed action: (a) may result in traffic that may exceed capacity of existing road network; (b) may result in a paved parking area for 500 or more vehicles; and (e) alter the present pattern of movement of people or goods.

14. **Impact on Energy** - specifically, the proposed action: (a) may require a new, or an upgrade to an existing, substation; (b) may require the creation or extension of an energy transmission system to supply a commercial or industrial use; (c) may utilize more than 2,500 MWhrs per year of electricity; and (d) may involve heating and/or cooling on more than I 00,000 square feet of building area when completed.

15. **Impact on Noise, Odor and Light** - specifically, the proposed action: (a) may produce sound above noise levels established by local regulation; (c) may result in routine odors for more than one hour per day; (d) may result in light shining onto adjoining properties; and (e) may result in light sky-glow brighter than existing area conditions.

16. **Impact on Human Health**- specifically, the proposed action: (a) is located within 1500 ft. of a private day care center located on Industrial Road and a group home located on Wainscott Northwest Road; (c) is located on, and adjacent to, a site where a completed spilled remediation has occurred; (f) may not have adequate control measures in place to ensure that future generation, treatment and /or disposal of hazardous wastes will be protective of the environment and human health; (h) may result in the unearthing of solid or hazardous wastes; and (l) may result in the release of contaminated leachate from the project site.

17. **Consistency with Community Plans**- specifically, the proposed action: (a) may have land use components different from, or in sharp contrast to, current land use patterns; and (c) may be inconsistent with local land use plans or zoning regulations.

18. **Consistency with Community Character**- specifically, the proposed action (b) may create demand for additional community services (e.g. schools, police and fire) and (e) may be inconsistent with the predominate architectural scale and character.

Identified Potential Impacts on the Environment Deemed Not To Be Significant

The lead agency's EAF, Part II also determined that the potential environmental impacts to the following resources would not be significant:

2. Impact on Geological Features

5. Impact on Flooding

6. Impacts on Air

7. Impacts on Plants and Animals

8. Impact on Agricultural Resources

9. Impact on Aesthetic Resources

10. Impact on Historic and Archeological Resources

Information Needed to Address Identified Potential Significant Adverse Impacts on the Environment

Generally, the project sponsor proposes to use existing public information to prepare the DEIS, including information comprising part of its Application, surveys, test holes, studies (including various East Hampton Town Studies), sampling data, data bases and laws and regulations.

In addition, certain studies and sampling data will be prepared and analyzed by experts on behalf of Applicant in connection with the preparation of the DEIS, including a Hydrogeologic Investigation of the site and a Traffic Impact Study as described more fully below.

Potential Groundwater and Surface Water Impacts

With respect to potential groundwater and surface water impacts (specifically, nearby Georgica Pond), the project sponsor will undertake a Hydrogeologic Investigation of the proposed site by AlphaGeoscience, 679 Plank Road, Clifton Park, New York 12065. The objectives of the Hydrogeologic Investigation are: (i) to describe the soil material at the site; (ii) to determine the depth to the water beneath the site; (iii) to assess the relationship of the water table beneath the site to Georgica Pond and to the surrounding community (i.e., to determine groundwater flow direction and flow rate); (iv) to evaluate the quality of the ground water; and (v) to assess the significance of the water quality as it relates to the site, the surrounding area and the proposed action.

The DEIS will also identify past and current uses at the site.

The soil and groundwater testing will be conducted in conformance with protocol approved by both the New York State Department of Environmental Conservation (NYDEC) and/or the Suffolk County Department of Health Services (SCDHS) as both are involved agencies under the State Environmental Quality Review Act (SEQRA). The Town of East Hampton Planning Board also reserves the right to have the same examined by its engineering staff, the Planning Department, the Natural Resources Department and any other entity as necessary and will approve the final testing protocol for the DEIS.

The DEIS will also contain storm water run-off calculations for the entire subdivision based upon proposed final grades for the site to ensure compliance within the East Hampton Town Code requirement that all storm water run-off generated at the site remain contained on the property through adequate drainage control structures.

The DEIS will also contain an analysis of whether the additional sanitary flow from the approved lots can be adequately addressed by SCDHS and Town Code mandated advance nitrogen reduction systems on each individual lot or by one or more community wastewater treatment facilities .

The DEIS will also contain an analysis of the potential demand for water usage to insure the availability of adequate supply from the Suffolk County Water Authority and to ensure the adequacy of the underground water mains to be installed under the internal roadways to be constructed in the proposed subdivision.

The DEIS will also analyze the proposed action 's consistency with The East Hampton Town Water Quality Improvement Plan (February 2017) and The East Hampton Town Trustees Water Quality Study (prepared by Christopher J. Gobler, PhD dated January 2017 . in each case as they relate to Georgica Pond.

Potential Transportation Impacts

With respect to potential traffic impacts, the project sponsor will undertake a Traffic Impact Study to be conducted by Dunn Engineering Associates, P.C., 66 Main Street, Westhampton Beach, NY 11978.

The Traffic Impact Study will include traffic counts commissioned by the Applicant in July, 2017, other publicly available traffic data and, where appropriate, estimated traffic counts determined pursuant to the current version of the ITE Manual.

The Traffic Impact Study will consider the proposed action's impact on traffic traveling on Montauk Highway, Daniels Hole Road, Wainscott Stone Road, Wainscott Northwest Road, Industrial Road and residential streets located in neighboring residential neighborhoods to the north and south of the site.

It will also consider the following potential traffic access points: (i) Old Montauk Highway/Montauk Highway (an existing access), (ii) Georgica Drive (and existing access), (iii) Wainscott Northwest Road (a potential access located at the northwest comer of the subject premises), and (iv) Hedges Lane (a potential access located at the northeast corner of the subject premises connecting to Daniels Hole Road).

Finally, the Traffic Impact Study will identify and analyze possible traffic impact mitigation measures, including alternative design elements such as one on more traffic circles on Montauk Highway proposed by the draft East Hampton Hamlet Report-Wainscott, dated January 30, 2018 (the "Draft Wainscott Hamlet Report").

Initial Identification of Mitigation Measures

At this stage, mitigation measures under consideration include the following: (i) elimination, by covenant and restriction of certain high impact, inappropriate commercial industrial uses currently allowed as-of-right or by special permit at the site in the East Hampton Town Code's Commercial Use Table; (ii) alternative access configurations, including the four access points identified in the preceding paragraph; (iii) installation of underground utilities, including public water and natural gas lines; (iv) the prohibition of bulk storage of all petroleum products, chemicals and hazardous substances;
(v) covenants making the Planning Board's Groundwater Protection Policy applicable to all structures introduced to the site; (vi) use of custom soil mixes (including bio-retention soil mixes) and selected landscaping (including, "rain gardens") to improve the absorption and filtration of storm water and appearance of the site; (vii) elimination by covenant and restriction of the use of synthetic fertilizers and pesticides and herbicides anywhere on the site; (viii) the providing of buffer areas adjacent to residential areas located west and east of the site; (ix) additional screening from residential areas, particularly those located on the western side of Hedges Lane; (x) alternative subdivision configurations (including, layouts,

clustering of developments with open space set aside, and density); **(xi)**

relocation and reconstruction of existing ready-mix plant; **(xii)** architectural standards for buildings introduced to the site; and **(xiii)** potential purchase of more or more lots by the Town or other governmental bodies or agencies for open space, cultural or recreational uses.

PROPOSED SCOPE OF DEIS

A. Potential Significant Adverse Environmental Impacts on Land

The DEIS will contain a profile of the depth of groundwater on the site based upon the analysis of data collected by the one existing and seven new monitoring wells recently installed on the site and the other groundwater testing and monitoring wells installed for the preparation of this DEIS and EIS.

The DEIS will contain proposed final grades for the site so it may be determined whether any proposed future construction would occur on slopes of 15% or greater.

The DEIS will contain an integrated plan (including timing and sequencing) of all necessary improvements for the subdivision, including: adequate drainage facilities, final grading; wastewater treatment; paving of streets and fire protection.

The DEIS will also contain proposed site plans for the two proposed lots containing the pre-existing ready mix plant and masonry and title supply yard.

Potential Significant Adverse Environmental Impacts on Water

(i) Surface Water Resources.

It is undetermined at this point whether or not there are surface waters on the site and the DEIS should include this determination. There are no Town, NYDEC or Federal designated wetlands located on the site and no part of the site is not located within the "jurisdiction" of any such wetland. There are no other natural features on the site which are protected by the East Hampton Town Zoning Code.

The most northwestern point of Georgica Pond is located in close proximity {approximately 1,100 feet) of the southwest comer of the site. Georgica Pond (a coastal lagoon) is known to be impaired and has recently been the site of harmful algal blooms. Georgica Pond has suffered greatly from various contamination sources and the Planning Board considers any potential for adverse impacts to this water body significant. The project site improvements and any surface or subsurface discharges could adversely impact the ground water moving into the pond, and thereby affecting the pond and its environs. The DEIS will also contain an inventory of flora and fauna within and in close proximity to Georgica Pond.

The DEIS will contain an analysis of the proposed subdivision's potential impact to Georgica Pond's water quality and will include the information described in Information Needed to Address Identified Potential Significant Adverse Impacts on the Environment -

Potential Groundwater and Surface Water Impacts described above and will explore alternatives which mitigate any potential significant adverse environmental impacts.

(ii) **Groundwater Resources.**

The site is a reclaimed sand and gravel mine that lies within Suffolk County Department of Health Services Groundwater Management Zone V. Excavation of the former sand and gravel mine extended into the ground water creating a pond on a portion of the site. This pond and much of the rest of the site, has long since been filled with clean sand and stone pursuant to completed Reclamation Plan approved and overseen by the New York State Department of Environmental Conservation.

There have been various uses and other activities on the site over the past decades. The DEIS will identify all such uses and activities.

Being is such close proximity to Georgica Pond there is a significant potential for impairment of this water body through groundwater flow should there be contaminates on-site. Seventy-five gallons of waste oil/used oil was reportedly spilled on the site in 1989. This warrants comprehensive soil and groundwater testing throughout the site to insure that there is no significant adverse impacts to Georgica Pond.

The DEIS will contain an analysis of the proposed subdivision's potential impact on Groundwater at the site and will include the information described in Information Needed to Address Identified Potential Significant Adverse Impacts on the Environment - *Potential Groundwater and Surface Water Impacts above*, including groundwater and soil sampling described therein and will explore alternatives which mitigate any potential significant adverse environmental impacts.

The DEIS will contain an analysis of future water demand to ensure that recently created Wainscott Water District and water mains installed on the site will insure adequate water supply to the site. The DEIS will also contain an analysis of future wastewater discharges.

B. Potential Significant Adverse Environmental Impacts Impact on Open Space and Recreation

The site is more than 3 times the size of the existing Wainscott business area and therefore will have a large impact on the future of Wainscott. The Draft Wainscott Hamlet Plan contains an "Illustrative Master Plan" for Wainscott's central business district which incorporates the southern end of the site into a possible village style redevelopment area off Montauk Highway. It also contains "Conceptual Framework" with representative future uses for the remainder of the site, including a large park representing approximately 60% of the site.

The DEIS will analyze whether the proposed subdivision of the site will eliminate the potential for this future recreational resource and the impact of any such elimination.

The DEIS will also analyze whether the proposed action result in an impairment of natural functions or "ecosystems" provided by the present undeveloped portion of the

site, including on storm water storage, nutrient recycling and wildlife habitat.

C. **Potential Significant Adverse Environmental Impacts on Critical Environmental Areas.**

The site is not located within a Critical Environmental Area (CEA) as designated by the Town or other agency. However, the site borders:

(i) a Special Groundwater Protection Area designated by the Long Island Planning Commission located to the north/northwest of the site; and

(ii) a Water Recharge Overlay District designated by the Town of East Hampton located to the Northeast/East of the site.

The DEIS will analyze whether the proposed action will adversely impact either CEA in light of the direction flow of the horizontal groundwater under the site and will explore alternatives which mitigate any potential significant adverse environmental impacts .

D. Potential Significant Adverse Environmental Impacts Impact on Transportation

The site is located adjacent to Montauk Highway (NY 27), the main and most heavily traveled road in Town and also borders roadways (Wainscott Northwest Road and Hedges Lane) which mainly service residential neighborhoods. The potential impact upon traffic for the proposed action is a significant concern.

The DEIS will contain an analysis of the proposed subdivision's potential impact on transportation and will include the information described in Information Needed to Address Identified Potential Significant Adverse Impacts on the Environment - *Potential Transportation Impacts* described above and will explore alternatives which mitigate any potential significant adverse environmental impacts.

The DEIS will also analyze whether the proposed action will degrade existing or proposed pedestrian or bicycle accommodations near the site as well as emissions and traffic resulting from increased trip generation.

E. **Potential Significant Adverse Environmental Impacts Impact on Energy**

Power and utilities will need to be extended throughout the subdivision to service the lots.

The DEIS will analyze the proposed action's impact on the creation or extension of energy transmission or supply system to service the commercial or industrial uses that maybe introduced at the site. The DEIS will analyze the impact on air quality and consistency with the Town's energy sustainability plan and will include an analysis of whether or not heating and cooling needs from potential future uses will adversely

F. **Potential Significant Adverse Environmental Impacts Impact on Noise, Odor and Light**

Noise levels in the Town are regulated by Chapter 185 of the East Hampton Town Code and the Planning Board has no authority to allow for activities which would exceed these levels.

The DEIS will analyze whether the proposed action will result in noise in excess of Town Code limits, particularly in the residential zoning districts bordering to the west and east of the site and will explore alternatives which mitigate any potential significant adverse environmental impacts.

Many commercial industrial uses can generate odors for more than one hour a day. The DEIS will consider if the proposed action will result in any such orders, particularly in the residential zoning districts bordering to the west and east of the site and will explore alternatives which mitigate any potential significant adverse environmental impacts.

The East Hampton Town Code contains numerous regulations pertaining to exterior lighting. Additionally, the Planning Board has adopted Guidelines for Exterior Lighting. Both seek to minimize unneeded lighting and help formulate efficient, unobtrusive lighting plans for commercial lighting which do not adversely impact adjacent residential and other non-commercial uses.

The DEIS will analyze whether the proposed action will result in added significant additional sky-glow and will explore alternatives which mitigate any potential significant adverse environmental impacts.

G. **Potential Significant Adverse Environmental Impacts Impact on Human Health**

The subject property is a reclaimed sand and gravel mine. There have been various uses and other activities on the site over the past decades including the existing ready -mix plant and the masonry and title supply yard. As with all intensive industrial uses the potential for soil and groundwater contamination is always present.

The Suffolk County Department of Health Services has recently found excess levels of iron and manganese in the groundwater of an active sand mine in Noyack, New York which the SCDHS has tied to a vegetative waste processing facility that was formally conducted on that site.

Additionally, the presence of Perfluorooactance sulfonate (PFOS), Perfluorootanic acid (PFOA) and related compounds in numerous private wells in southern Wainscott, including some wells near the site has prompted the Town to create the Wainscott Water District for the purposes of extending Suffolk County Water Authority water mains throughout that District, including along Old Montauk Highway adjacent to the

is an existing water main along Wainscott Northwest Road (adjacent to the western side of the site).

The DEIS will contain an analysis of the proposed subdivision's potential impact on Groundwater at the site and will include the information described in Information Needed to Address Identified Potential Significant Adverse Impacts on the Environment - *Potential Groundwater and Surface Water Impacts above*, including groundwater and soil sampling described therein. That analysis will also determine whether hazardous materials are present on the site and if a comprehensive plan for their safe removal and remediation of the site is required and will explore alternatives which mitigate any potential significant adverse environmental impacts.

The DEIS will consider also whether comprehensive control measures such as filed covenants and restrictions could help ensure protection from hazardous wastes associated with future lot development and use over and above those already available to the Planning Board in the site plan approval process each and every proposed use on the site will be required to obtain as a condition precedent to its introduction to the site.

H. Consistency with Community Plans

The proposed action is compliant with the Commercial Industrial (Cl) zoning classification applicable to the entire site since the initial enactment of zoning regulations in East Hampton Town. No variances are required under the East Hampton Town Code to subdivide the site as proposed by the proposed action.

The Town Board is in the process of reviewing the Draft Wainscott Hamlet Report. The Draft Wainscott Hamlet Plan contains an "Illustrative Master Plan" for Wainscott's central business district which incorporates the southern end of the site into a possible village style redevelopment area off Montauk Highway and a "Conceptual Framework" with possible future uses for the remainder of the site, including a large park representing approximately 60% of the site and a new Wainscott LIRR station at the north end of the site

The DEIS will consider whether the proposed action is consistent with Community Plans, including the 2005 East Hampton Comprehensive Plan and the Draft Wainscott Hamlet Report.

The DEIS will also consider whether the proposed action is consistent with the existing Runway Protection Zone for Runway 16-34 at the East Hampton Town Airport located to the north of the Site and FAA Regulations with respect to such Runway Protection Zone (see, Letter from FAA to Mr. Porter, Chairman of the Planning Board, dated August 8, 2018).

Finally, the DEIS will also consider whether the proposed action may cause a density of development not supported by existing infrastructure or will require new or expanded infrastructure or may induce secondary development impacts (e.g., residential or

commercial development not included in the proposed action).

I. Consistency With Community Character

The site is located in the largest commercial industrial (CI) zone in the Town. The entire East Hampton Town Airport (including the adjacent East Hampton Town Industrial Park) is located north of the site separated by the Long Island Rail Road right-a-way. The existing Wainscott Central Business District (currently zoned commercial business (CB)) is located directly west of the site. There are high density A (40,000 sq. ft. minimum) and B (20,000 sq. ft. minimum) residentially zoned parcels to located to the west of the site (off the west side of Wainscott Northwest Rd.) and high density B (20,000 sq. ft.) residentially zoned parcels to located on Hedges Lane, a private road adjacent to the eastern border of the site.

The impact of fifty CI zoned lots (44 new lots) to Town services could be significant.

The DEIS will analyze whether the proposed action will create a demand for additional community services (e.g., schools, police and fire).

The DEIS will analyze whether the proposed action is inconsistent with the predominate architectural scale and character of the community surrounding the site.

J. Content Requirements

The DEIS will include:

a cover sheet stating:
(i) whether it is a draft or final EIS;
(ii) the name or descriptive title of the action;
(iii) the location (county and town, village or city) and street address, if applicable, of the action;
(iv) the name and address of the lead agency and the contact information of a person at the agency who can provide further information;
(v) the names of individuals or organizations that prepared any portion of the statement;
(vi) the date of its acceptance by the lead agency; and
(vii) in the case of a draft EIS, the date by which comments must be submitted.

a table of contents following the cover sheet and a precise summary which adequately and accurately summarizes the statement.

the following elements will be included:

(i) a concise description of the proposed action, its purpose, public need and benefits, including social and economic considerations;
(ii)a concise description of the environmental setting of the areas to be affected,

sufficient to understand the impacts of the proposed action and alternatives;

(iii) a statement and evaluation of the potential significant adverse environmental impacts at a level of detail that reflects the severity of the impacts and the reasonable likelihood of their occurrence.

The draft EIS will identify and discuss the following impacts:

(a) reasonably related short-term and long-term impacts, cumulative impacts and other associated environmental impacts;
(b) those adverse environmental impacts that cannot be avoided or adequately mitigated if the proposed action is implemented;
(c) any irreversible and irretrievable commitments of environmental resources that would be associated with the proposed action should it be implemented;
(d) any growth-inducing aspects of the proposed action;
(e) impacts of the proposed action on the use and conservation of energy (for an electric generating facility, the statement must include a demonstration that the facility will satisfy electric generating capacity needs or other electric systems needs in a manner reasonably consistent with the most recent State energy plan);
(f) impacts of the proposed action on solid waste management and its consistency with the State or locally adopted solid waste management plan;
(g) impacts of public acquisitions of land or interests in land
(h) impacts of the proposed action on, and its consistency with, the comprehensive management plan for the special groundwater protection area program as implemented pursuant to article 55 or any plan subsequently ratified and adopted pursuant to article 57 of the Environmental Conservation Law for Nassau and Suffolk counties; and
(i) measures to avoid or reduce both an action's impacts on climate change and associated impacts due to the effects of climate change such as sea level rise and flooding.
(iv) a description of the mitigation measures;
(v) a description and evaluation of the range of reasonable alternatives to the action. Alternative plats including reduced density an open space plan and a plan which reflects the sketch provided in the draft Hamlet Study Report for the subject property will be included. A description and evaluation of each alternative will be at a level of detail sufficient to permit a comparative assessment of the alternatives discussed. The range of alternatives must include the no action alternative. The no action alternative discussion should evaluate the adverse or beneficial site changes that are likely to occur in the reasonably foreseeable future, in the absence of the proposed action.

APPENDIX A-4

FULL ENVIRONMENTAL ASSESSMENT FORM (EAF)

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Wainscott Commercial Center		
Project Location (describe, and attach a general location map): 30 Montauk Highway, Wainscott, New York 11975 (see Preliminary Plat Attached)		
Brief Description of Proposed Action (include purpose or need): The proposed action is a subdivision of 70.511 acres of a reclaimed sand and gravel mine into 50 commercial (CI Zoned) lots ranging in size from 40,000 sq. ft. - 260, 732 sq. ft. One of the proposed lots (lot 21;180,364 sq. ft.) will contain an existing ready mix plant and another (lot 22; 260,732 sq. ft.) will contain an existing masonry and tile supply yard. The subdivision will include buffer areas aggregating 331,598 sq. ft. (7.61 acres) located adjacent to residential areas located west and east of the site. The subdivision infrastructure will also include 291,891 sq. ft. (6.71 acres) of roads and underground utilities, including public water and natural gas lines. The Subject premises is located in the Hamlet of Wainscott, in the Town of East Hampton, Suffolk County, New York , and is further identified as SCTM#s: 300-192-6.2,6.3,6-4,6-5, 6.6 and 6.7.		
Name of Applicant/Sponsor: Wainscott Commercial Center LLC	Telephone: 631-907-2537 E-Mail: davideagan46@optimum.net	
Address: 30, Montauk Highway, P.O. Box 1259		
City/PO: Wainscott	State: New York	Zip Code: 11975
Project Contact (if not same as sponsor; give name and title/role): David E. Eagan, Senior Vice President Development , Wainscott, Commercial Center LLC	Telephone: Same E-Mail: Same	
Address: Same		
City/PO: Same	State: Same	Zip Code: Same
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees ☐Yes☑No		
b. City, Town or Village Planning Board or Commission ☑Yes☐No	East Hampton Town Planning Board-Subdivision Approval	January, 2017
c. City Council, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☑Yes☐No	East Hampton Town Architectural Review Bd. - Signage	TBD
e. County agencies ☑Yes☐No	Suffolk County Department of Health Services - Subdivision Approval	TBD
f. Regional agencies ☐Yes☑No		
g. State agencies ☑Yes☐No	New York State Dep't of Transportation- curb cuts; Intersections on 27 East (Montauk Highway)	TBD
h. Federal agencies ☐Yes☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☑Yes☐No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes☑No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☑Yes☐No

If Yes, identify the plan(s):

East Hampton Town Comprehensive Plan- Plan for Wainscott; Wainscott Community Preservation Project Plan

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
The entire subject premises is zoned Commercial Industrial (CI)

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Wainscott Common School District

b. What police or other public protection forces serve the project site?
East Hampton Town Police

c. Which fire protection and emergency medical services serve the project site?
Bridgehampton Fire District

d. What parks serve the project site?
None

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? commercial

b. a. Total acreage of the site of the proposed action? 70.511 acres
b. Total acreage to be physically disturbed? approx. 60 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 71.49 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
commercial
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? 50
iv. Minimum and maximum proposed lot sizes? Minimum 40,000 sq. ft. Maximum 260,732 sq.

e. Will proposed action be constructed in multiple phases? ☑ Yes ☐ No
i. If No, anticipated period of construction: _____ months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:
See Rider attached

f. Does the project include new residential uses? ☐Yes ☑No
If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	_____	_____	_____	_____
At completion of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? ☐Yes ☑No
If Yes,
i. Total number of structures See Rider
ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length
iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐Yes ☑No
If Yes,
i. Purpose of the impoundment: _____
ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐Other specify: _____
iii. If other than water, identify the type of impounded/contained liquids and their source. _____
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres
v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐Yes ☑No
If Yes:
i. What is the purpose of the excavation or dredging? _____
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____
iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No
If yes, describe. _____
v. What is the total area to be dredged or excavated? _____ acres
vi. What is the maximum area to be worked at any one time? _____ acres
vii. What would be the maximum depth of excavation or dredging? _____ feet
viii. Will the excavation require blasting? ☐Yes ☐No
ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐Yes ☑No
If Yes:
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe:

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: unknown at this time gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: Suffolk County Water Authority Distribution Area 23
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☐ Yes ☑ No

iii. Will line extension within an existing district be necessary to supply the project? ☑ Yes ☐ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
  Site will connect to existing water mains located along roads adjoining the site
- Source(s) of supply for the district: SCWA pubic wells located in the vicinity of the proposed site

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: unknown at this time gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
See Rider attached.

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐ Yes ☑ No
If Yes:

- Name of wastewater treatment plant to be used:
- Name of district:
- Does the existing wastewater treatment plant have capacity to serve the project? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No

- Do existing sewer lines serve the project site? ☐Yes ☑No
- Will line extension within an existing district be necessary to serve the project? ☐Yes ☑No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 6.91 acres (impervious surface)

_____ Square feet or 70.51 acres (parcel size)

ii. Describe types of new point sources. N/A

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

On-site stormwater management structures- Storm drains located in roads and storm water treatment areas on each lot

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Heavy equipment and delivery vehicles during construction of roads and grading of site

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Existing block plant on site to be used to manufacture drainage rings

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

See Rider attached.

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☑ Morning ☑ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: unknown at this time- see Rider

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☑No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

Possible improvements to NY 27 intersections; access to Wainscott Northwest Road and Daniels Hole Road

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☑No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☑No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action:

unknown at this time

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

grid/local utility

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7:00- 5:00pm
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: 7:00 -5:00 pm
- Saturday: 7:00- 5:00pm
- Sunday: _____
- Holidays: _____

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Noise from construction of infra-structure and grading during business hours during week

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n.. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Unknown at this time but any such outdoor lighting will be subject to EH Town Planning Board review based upon Town Code requirements and such Planning Board's Lighting Guidelines.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☑ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : Unknown at this time tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: All material on site will be used to grade property pursuant to approved Grading and Drainage Plan
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: The type and amount of solid wastes generated by the future development and operation of the proposed lots is unknown at this time but will be evaluated during the Site Plan review process at the time of such development and the method of disposal
- Operation: will comply with all applicable laws and regulations

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility: _____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): site is reclaimed sand and gravel mine

ii. If mix of uses, generally describe: _____

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	none	6.91 acres of roads	+ 6.91
• Forested	Approx. 5 acres in buffers	Approx. 5 acres in buffers	none
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	none	none	none
• Agricultural (includes active orchards, field, greenhouse etc.)	none	none	none
• Surface water features (lakes, ponds, streams, rivers, etc.)	none	none	none
• Wetlands (freshwater or tidal)	none	none	none
• Non-vegetated (bare rock, earth or fill)	approx. 60 acres	none	- approx. 60
• Other Describe: Landscape	none	approx. 60 acres	+ approx. 60

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☑No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑Yes ☐No

If Yes,

i. Identify Facilities:

County School (private day care center) 7 Industrial Rd.- located approx. 200 ft north of site and separated from site by LIRR right a way; Group Home located at 98 Wainscott NW Rd- located approx. 450 ft from site

e. Does the project site contain an existing dam? ☐Yes ☑No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes ☑No

If Yes:

i. Has the facility been formally closed? ☐Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☑Yes ☐No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

East Hampton Airport is located to the north of site is listed as a NYDEC Environmental Remediation Site -Site No. 152250; Also East Hampton Airport has recently been identified by the NYDEC as a possible closed solid waste management facility (see NYDEC letter to Town dated 11/10/2017).

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☑Yes ☐ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☑Yes ☐No

☑ Yes – Spills Incidents database — Provide DEC ID number(s): spill # 8902128 (See Rider)

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑Yes ☐No

If yes, provide DEC ID number(s): 152156

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

East Hampton Airport located north of the site is listed in the NYDEC's Environmental Remediation Database -Site No. 152250 -See Site Record Attached; Also East Hampton Airport has recently been identified by the NYDEC as a possible closed solid waste management facility (see NYDEC letter to Town dated 11/10/2017 attached).

v. Is the project site subject to an institutional control limiting property uses? ☐Yes ☑No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐Yes ☐No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? unknown feet

b. Are there bedrock outcroppings on the project site? ☐Yes ☑No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: See Rider _____%
_____%
_____%

d. What is the average depth to the water table on the project site? Average: approx. 8 feet

e. Drainage status of project site soils: ☑ Well Drained: 100 % of site
☐ Moderately Well Drained: ____% of site
☐ Poorly Drained ____% of site

f. Approximate proportion of proposed action site with slopes: ☐ 0-10%: ____% of site
☐ 10-15%: ____% of site
☑ 15% or greater: 5 % of site

g. Are there any unique geologic features on the project site? ☐Yes ☑No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐Yes ☑No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑Yes ☐No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑Yes ☐No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name See Rider attached Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐Yes ☑No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐Yes ☑No

j. Is the project site in the 100 year Floodplain? ☐Yes ☑No

k. Is the project site in the 500 year Floodplain? ☑Yes ☐No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑Yes ☐No

If Yes:

i. Name of aquifer: Sole Source Aquifer Names:Nassau-Suffolk SSA

m. Identify the predominant wildlife species that occupy or use the project site:
N/A

n. Does the project site contain a designated significant natural community? ☑ Yes ☐ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation):
Pitch Pine-Oak Forest, Coastal Oak-Heath Forest

ii. Source(s) of description or evaluation: EAF-Mapper- Applicant disputes this response.

iii. Extent of community/habitat:

- Currently: 871.66, 2129.96 acres
- Following completion of project as proposed: same acres
- Gain or loss (indicate + or -): none acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No

Answer generated by NYDEC Mapper. This response is not accurate since the Site ia a reclaimed sand and gravel mine.

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☑ Yes ☐ No

Answer generated by NYDEC Mapper. This response is not accurate since the Site is a reclaimed sand and gravel mine.

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No

i. If Yes: acreage(s) on project site?

ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☑ Yes ☐ No

If Yes:

i. CEA name: SGPA, Water Recharge

ii. Basis for designation: Protect groundwater, Protect groundwater & drinking water

iii. Designating agency and date: Agency:Long Island Regional Planning, Agency:East Hampton, Town of, Date:3-19-93, Date:...

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Parts of Wainscott along and south of Main Street have been designated as areas of statewide scenic significance

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): scenic setting , including beach front

iii. Distance between project and resource: Approx. 1 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Wainscott Commercial Center LLC Date January 8, 2017

Signature _____ Title President

PRINT FORM

E. 1. 4. iii

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Environmental Site Remediation Database Search Details

Site Record

Administrative Information

Site Name: East Hampton Airport
Site Code: 152250
Program: State Superfund Program
Classification: P *
EPA ID Number:

Location

DEC Region: 1
Address: 200 Daniels Hole Road
City: Wainscott Zip: 11975
County: Suffolk
Latitude:
Longitude:
Site Type:
Estimated Size: 300 Acres

Site Owner(s) and Operator(s)

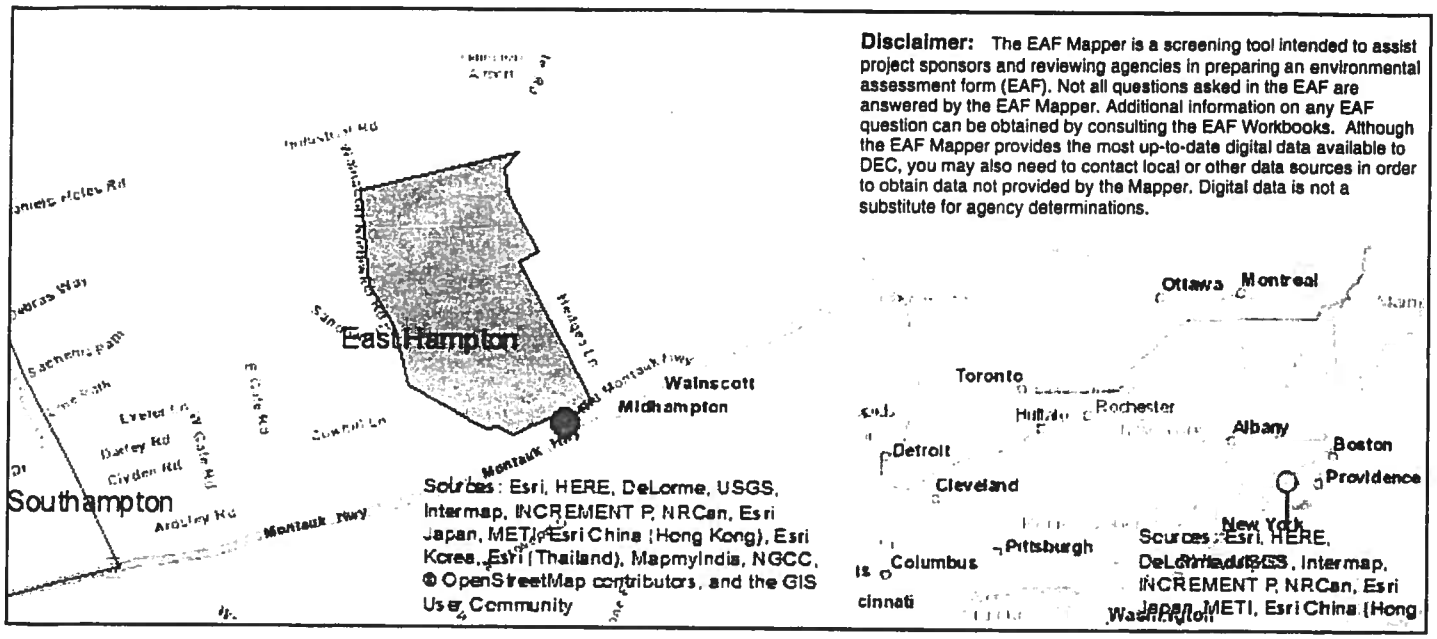
Current Owner Name: East Hampton Airport
Current Owner(s) Address: 200 Daniels Hole Rd
Town of East Hampton,NY, 11937

Site Description

Location: The site is located in the hamlet of Wainscott approximately 2 miles west of the Village of East Hampton. The site comprises approximately 300 out of the 570-acre airport property, consisting of the improved or developed parcels owned by the Town of East Hampton north of Industrial Road and west of Daniels Hole Road. Site Features: The site property is a public use airport with a parking lot, airport terminal and various support buildings. Current Zoning: The site property is zoned Commercial/Industrial (CI) according to the Town zoning map. Surrounding properties are used for residential and commercial purposes with areas of open, unoccupied land. Past use of the Site: Originally built in the late 1930s, the airport is capable of handling small general aviation aircraft. Site Geology and Hydrogeology: This information will be provided once it is available.

EAF Mapper Summary Report

Wednesday, December 13, 2017 12:31 PM



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

B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	152156
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	Yes
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Sole Source Aquifer Names:Nassau-Suffolk SSA

E.2.n. [Natural Communities]	Yes
E.2.n.i [Natural Communities - Name]	Pitch Pine-Oak Forest, Coastal Oak-Heath Forest
E.2.n.i [Natural Communities - Acres]	871.66, 2129.96
E.2.o. [Endangered or Threatened Species]	Yes
E.2.p. [Rare Plants or Animals]	Yes
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	Yes
E.3.d [Critical Environmental Area - Name]	SGPA, Water Recharge
E.3.d.ii [Critical Environmental Area - Reason]	Protect groundwater, Protect groundwater & drinking water
E.3.d.iii [Critical Environmental Area – Date and Agency]	Agency:Long Island Regional Planning, Agency:East Hampton, Town of, Date:3-19-93, Date:2-12-88
E.3.e. [National Register of Historic Places]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

SUPPLEMENTAL INFORMATION TO FULL ENVIRONMENTAL ASSESSMENT FORM PART 1 FOR WAINSCOTT COMMERCIAL CENTER

Page 2 :B. e - Government Approvals.

The Suffolk County Planning Commission must also review and provide comments on the proposed subdivision.

Page 3: D.1. e and g - Proposed and Potential Development.

The proposed action is the subdivision of the Premises into 50 commercial industrial (CI) zoned lots ranging in size from 40,000 sq. ft. - 260,732 sq. ft. One of the proposed lots (lot 21; 180,364 sq. ft.) will contain an existing ready mix plant and another (lot 22; 260,732 sq. ft.) will contain an existing masonry and tile supply yard. The subdivision will also include (i) buffer areas aggregating 331,598 sq. ft. (7.61 acres) located adjacent to residential areas located west and east of the site and (ii) subdivision infrastructure including 291,891 sq. ft. (6.71 acres) of roads and underground utilities, including public water and natural gas lines. It is anticipated that it will take approximately six to nine months to complete the subdivision following receipt of all regulatory approvals.

There exists potential for additional development at the site as a result of the subdivision. While the specific details and timing of such development are currently unknown it is anticipated that buildout of the site will occur over a number of years and possibly decades.

All development of the vacant lots created by the subdivision will conform to the site's current commercial industrial (CI) zoning and all other applicable state, county and local rules and regulations, including, without limitation, Article 6 of the Suffolk County Sanitary Code. The future development of each lot will require Site Plan review and approval by the East Hampton Town Planning Board and architectural review and approval from the East Hampton Town Architectural Review Board as well as Suffolk County Department of Health Services review and approval of on-site Low Nitrogen Sanitary Systems.

A range of estimates of future buildings based upon current CI zoning and Article VI are set forth below. Such estimates reflect the fact that the currently permitted 50% Building Coverage in the CI Zone under the East Hampton Town Code is effectively reduced to approximately 17.22 % maximum of Adjusted Lot Area for buildings since the entire site is located within Suffolk County Article VI Ground Management Zone V (assumes no on site sewer treatment plants are proposed).

Each of the 41 proposed 40,000 sq. ft. lots could yield a maximum commercial building of 6,887 sq. ft. Proposed Lot 23 containing 51,844 sq. ft. could yield a

maximum commercial building of 8.927 sq. ft., and proposed Lot 50 containing 89,062 sq. ft. could yield a maximum commercial building of 15,336 sq. ft.

Page 5: D.2. Project Operations- d (i) and (ii) - Liquid Wastes; f (iii) - Air Emissions.

The vacant lots will generate liquid wastes as they are developed over time. Both the timing of such development and the type and amount of liquid wastes generated thereby are unknown at this time. However, the liquid wastes generated by any such development will be evaluated during the Site Plan approval process and will need to conform to Article VI requirements. At this time it is anticipated that waste water treatment will be achieved through on-site Low Nitrogen Sanitary Systems.

The existence and nature of any stationary sources of air emissions generated by the operation of the site are unknown at this time. However, any air emissions generated by the furture development of the vacant lots will be evaluated during the Site Plan approval process and will need to conform to all applicable laws and regulations.

Page 7: D.2. j- Project Operations -Traffic Increase

The proposed Subdivision of the Site will not result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services.

The removal of two recent tenants from the site (Landscape Details and Summerhill) to Town owned sites on Industrial Road will decrease traffic previously generated at the site.

The vacant lots will generate increased traffic as they are developed over time. The timing and exact nature of such development and resulting traffics are unknown at this time. However, all traffic generated by any such development will be evaluated during the Site Plan review and approval process.

Page 10: E.1.h (i) - Land Uses On and Surrounding Project Site-Potential Contamination History.

NYSDEC Spills Incidents database indicated that Spill # 8902128 was a 1989 discharge of

waste oil/used oil	75 Gal.	Soil

from a commercial vehicle at the site. The case was closed by the NYDEC on 3/14/1991.

Page 11: E.2.c- Natural Resources On or Near Site -Soils.

The table below indicates the soil types and percentages found on the Site according to the USDA Natural Resources Conservation Service:

Table 1: Soil Type	Acres	Percent of Site
Carver and Plymouth sands, 0-3% slopes (CpA)	+/- 13.87	19.7%
Carver and Plymouth sands, 3-15% slopes (CpC)	+/- 14.13	20.0%
Cut and fill land, gently sloping (CuB)	+/- 3.45	4.9%
Gravel pits (Gp)	+ - 35.11	49.8%
Plymouth loamy sand, 0-3% slopes (PlA)	+/- 3.95	5.6%

Page 11: E.2.H. iii - Natural Resources On or Near Project Site-Wetlands

There is a NYDEC regulated freshwater wetland located approximately 350 ft. at its closest point from SCTM# 300-192-2-6.6, one of the parcels comprising the Premises. The Wetland ID is EH-26, its Wetland Class is 1 and its size is 12.1 acres. No part of the Premises is located within the NYDEC's freshwater wetland jurisdiction. (See "Environmental Analysis Including Cultural & Natural Features" map and narrative included in full application for further information).

Two portions of the southern portion of NYDEC freshwater wetland EH-26 located approximately 450 ft. from the eastern boundary line SCTM# 300-192-2 6.3, one of the parcels comprising the Premises, are also listed in the National Wetland Inventory. Those areas are .6106 and .2519 acres in size and are designated Freshwater Forested/Shrub Wetland. No part of the Premises is located within the limit of these portions of the wetland.

There is an East Hampton Town delineated freshwater wetland located on SCTM # 300-192-3-23.3, an improved residential property located approximately 500 ft. to the east of eastern lot line of SCTM # 300-192-2-6.7, one of parcels constituting the subject premises. Two improved residential lots located on each side of Hedges Lane are located between the northern boundary of such freshwater wetland and the subject premises. No part of the Premises is located within the Town's freshwater wetland jurisdiction.

Page 12: E.2.N- Natural Resources On or Near Project Site-Existing Natural Community

There existing vegetative screening along the northern, western and eastern boundaries of the site will remain. The remainder of the site is predominately disturbed with a reclaimed sand and gravel mine. Accordingly, the EAF Mapper's response indicating that site present contains a "Pitch-Pine-Oak Forest, Coastal Oak- Heath Forest" is not accurate as the site has no native vegetation. (See

"Environmental Analysis Including Cultural & Natural Features" map and narrative included in full application for further information).

Page 12: E.3.D- Designated Public Resources On or Near Project Site

The southern boundary of a Special Ground Water Protection Area filed by the Long Island Regional Planning Board and a Water Recharge Overlay District designated by the Town of East Hampton are located north of the subject premises beginning at the southern boundary of the East Hampton Airport. The horizontal ground water flow under the site is from the northwest to the southeast, a direction away from these designated Critical Environmental Areas.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

E.I.G.

Environmental Site Remediation Database Search Details

Site Record

Administrative Information

Site Name: East Hampton Aire
Site Code: 152156
Program: State Superfund Program
Classification: C
EPA ID Number:

Location

DEC Region: 1
Address: Hanger
City: East Hampton Zip: 11937
County: Suffolk
Latitude: 40.95840348
Longitude: -72.24952729
Site Type: STRUCTURE
Estimated Size: 1 Acres

Site Owner(s) and Operator(s)

Current Owner Name: Town of East Hampton
Current Owner(s) Address: 159 Pantigo Road
East Hampton,NY, 11937
Owner(s) during disposal: TOWN OF EAST HAMPTON
Current On-Site Operator: East Hampton Aire
Stated Operator(s) Address: HANGER "L", EAST HAMPTON AIRPORT
EAST HAMPTON,NY 11937
Current On-Site Operator: East Hampton Aire
Stated Operator(s) Address: Hanger L - East Hampton Airport
East Hampton,NY 11937

Hazardous Waste Disposal Period

From: early 70s **To:** 1991

Site Description

This site is an airport hangar that was abandoned in 1991 when the tenant went out of business. Activities inside the 3-story structure began in the early 1970s, and included routine cleaning, maintenance, repair and storage of aircraft. Several full drums containing chlorinated solvents were

left outside the building when it was abandoned. The drums had leaked some of their contents onto the ground, contaminating the surrounding soils. Subsequent samples taken from drywells in the vicinity of the leakage indicated levels of chlorinated solvents. In July 1997 the Suffolk County Department of Health Services found that the leaching pools associated with the floor drain systems in the hangar, as well as the original sanitary system, had been adequately cleaned to protect the groundwater quality. A State-funded Preliminary Site Assessment (PSA) was completed in the fall of 2000. The study found no remaining volatile organic contamination of the soil or groundwater.

Contaminants of Concern (Including Materials Disposed)

Contaminant Name/Type

1,1,1-TICHLOROETHANE (F002 WASTE)
TETRACHLOROETHENE (F002 WASTE)
TRICHLOROETHENE (F002 WASTE)

Site Environmental Assessment

Investigations completed in the fall of 2000 found no volatile organic contamination of the soils or groundwater at this facility.

Site Health Assessment

The potential for exposure to site-related contamination is minimal, since surface soil contamination was removed.

For more Information: E-mail Us

Refine This Search

E.1.6.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau A
625 Broadway, 12th Floor, Albany, NY 12233-7015
P: (518) 402-9625 | F: (518) 402-9627

November 10, 2017

Mr. Larry Cantwell, Supervisor
Town of East Hampton
159 Pantiago Road
East Hampton, NY 11937

Re: Potential Hazardous Waste Disposal Site

Dear Mr. Cantwell:

As required by subdivision 27-1305(2)(a) of the Environmental Conservation Law (ECL, quoted below), the New York State Department of Environmental Conservation (DEC) must investigate all suspected or known inactive hazardous waste disposal sites. We have received information that certain perfluorinated compounds (PFCs) have been detected in nearby water supply wells, which may be attributable to current or past operations on your property. These compounds are known components of firefighting foams, and are listed as hazardous substances in New York State (6 NYCRR Part 597). This information leads us to suspect that hazardous waste may have been disposed of at the following location:

Site Name: East Hampton Airport
Site Address: 200 Daniels Hole Road, Wainscott, NY 11975
DEC Site No.: 152250
Tax Map Identifier(s): 18100-200-6000, 18000-100-8013, 18100-200-1000, 18100-200-3000, 19100-300-1001, 18100-300-1001, 18100-300-3000, 18100-300-2000, 18100-200-4000, 18100-200-2000, 19200-300-50000, 18100-200-5000, 19200-300-42001, 18100-500-1001

Therefore, this letter constitutes DEC's notification to you as the identified property owner that this property is considered a potential inactive hazardous waste disposal site. If DEC determines that hazardous waste has been disposed of on the property and that the hazardous waste poses a significant threat to public health or the environment, the property will be listed on the Registry of Inactive Hazardous Waste Disposal Sites (Registry).

If you have any information that may be relevant to our investigation and pending determination, please forward it to DEC as soon as possible. Such information includes the locations of firefighting foam storage, use, and training activities; and the brand names of all aqueous film forming foam (AFFF) handled at the site.

This letter also serves as DEC's notification to you of the need to carry out an investigation in accordance with DEC's technical requirements for a site characterization. In addition to carrying out the investigation (which will include installing and sampling on-site wells), there is a need to install point of entry treatment systems (POETs) or other alternate water supply (i.e., waterline extension) to address the contaminated water supply wells mentioned above. Also, bottled water must be provided until such time as that system or alternate supply is in place. We understand that, presently, the Town of East Hampton is providing bottled water to the affected residences.

Please contact me within 10 business days to discuss the necessary scope of the investigation and the installation of the POET systems or alternate water supply. Also, please have your attorney contact the DEC Project Attorney, Caryn Bower, to discuss entering into a legal agreement with DEC to carry out the necessary investigation.

Should you be unwilling or unable to conduct the needed study, if the site is determined to be an inactive hazardous waste disposal site and DEC incurs costs to investigate or remediate the site, DEC will seek to recover all such costs from any responsible person.

A brief summary of the information currently available about the site is enclosed for your reference. This information is also available on DEC's environmental remediation database, by using our "Environmental Site Remediation Database Search" tool at: http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3

If you have any questions, please feel free to contact me at 518-402-9625 or eric.obrecht@dec.ny.gov. To discuss the legal agreement required for the investigation of the site, contact Caryn Bower at 518-402-9186.

Sincerely,

Eric R. Obrecht

Eric Obrecht, P.E.
Director, Remedial Bureau A
Division of Environmental Remediation

Enclosure

Ec w/o Enc.: S. Edwards
J. Moras
C. Bower

Environmental Conservation Law

Section 27-1305(2)(a)

"The department shall conduct investigations of the sites listed in the registry and shall investigate areas or sites which it has reason to believe should be included in the registry. The purpose of these investigations shall be to develop the information required by subdivision one of this section to be included in the registry."

Site Environmental Assessment

Initial sampling of groundwater at/near the facility has indicated the presence of perfluorinated compounds (PFCs) which require additional investigation. Once additional information is available this assessment will be updated (10/2017).

Site Health Assessment

As information for this site becomes available, it will be reviewed by the NYSDOH to determine if site contamination presents public health exposure concerns

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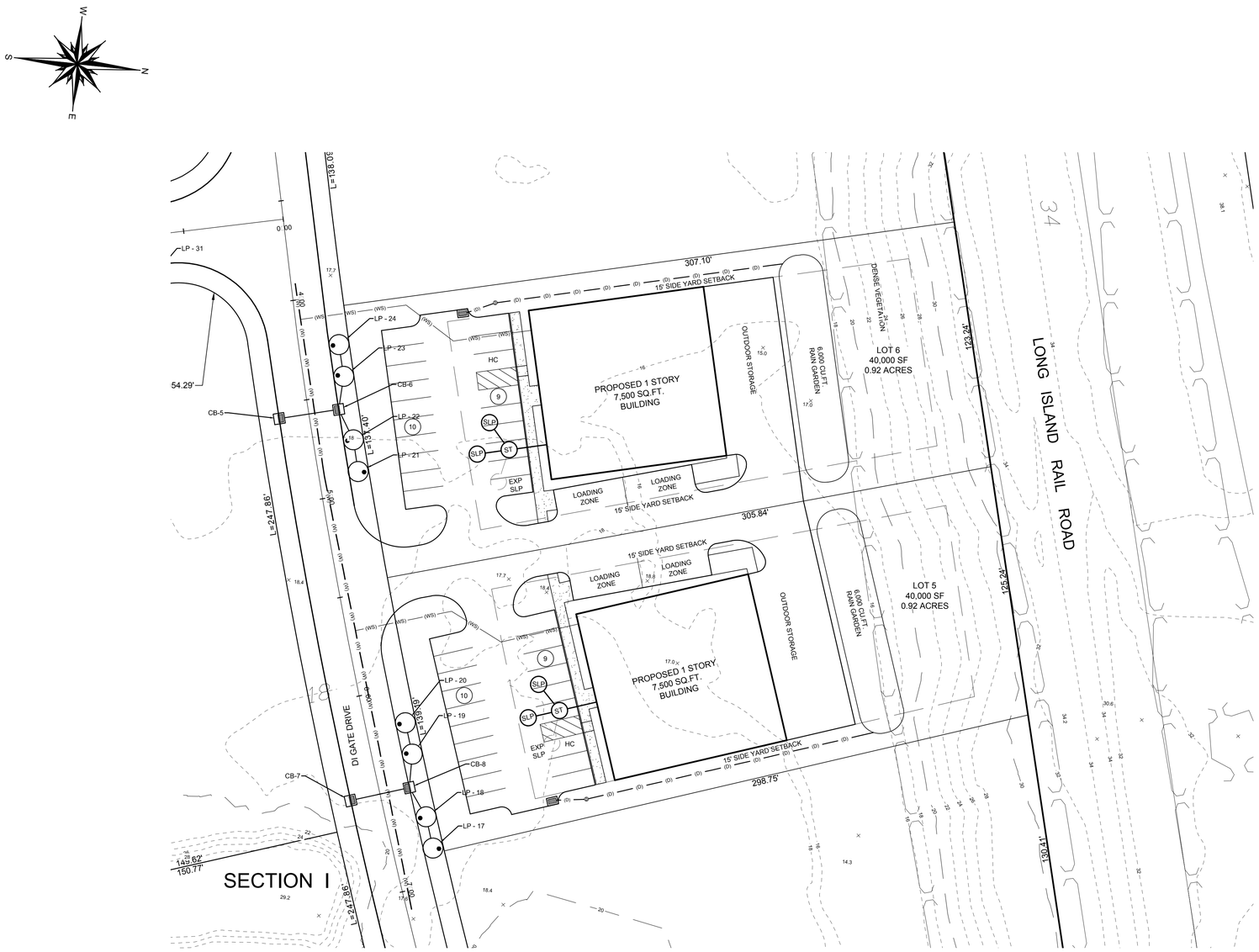
* **Class P Sites:** "DEC offers this information with the caution that it should not be used to form conclusions about site contamination beyond what is implied by the classification of this site, namely, that there is a potential for concern about site contamination. Information regarding a Class P site (potential Registry site) is by definition preliminary in nature and unverified because the DEC's investigation of the site is not yet complete. Due to the preliminary nature of this information, significant conclusions or decisions should not be based solely upon this summary."

For more Information: E-mail Us

Refine This Search

APPENDIX A-5

TYPICAL PLOT PLANS



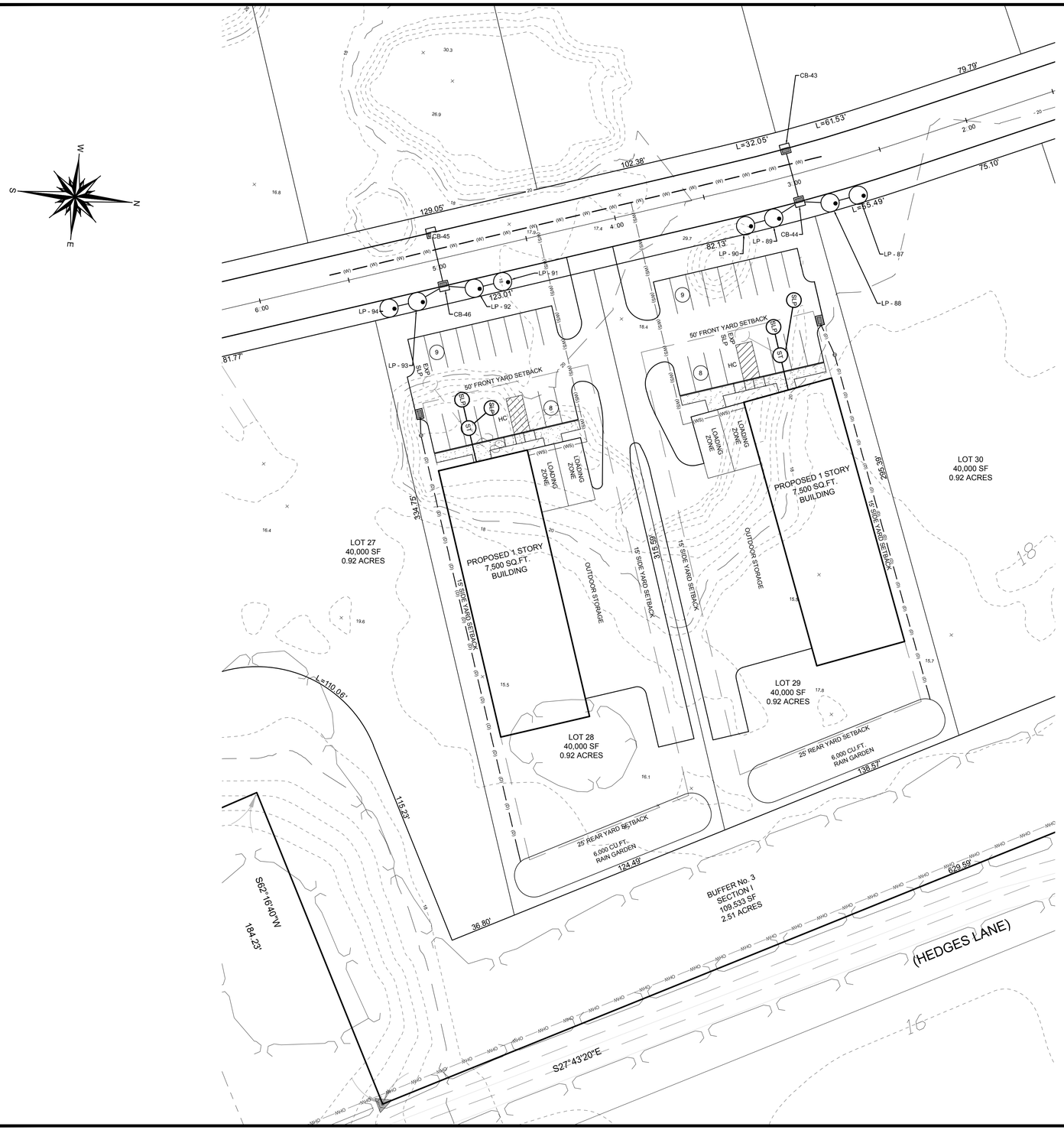
NO.	DATE:	REVISIONS:	BY:
-	-	-	-

P.E. SEAL AND SIGNATURE

PRE - PRELIMAP 2, LOTS 5 & 6
FOR
WAINSCOTT COMMERCIAL CENTER
SITUATED AT
EAST HAMPTON
TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

NELSON & POPE
ENGINEERS & SURVEYORS
572 WALT WHITMAN ROAD, MELVILLE, N.Y. 11747
PHONE (631) 427-5665 FAX (631) 427-5620
WWW.NELSONPOPE.COM

PROJECT NO.:	17071
DRAWN BY:	GEO
CHECKED BY:	VB
DATE:	APRIL, 2019
SCALE:	1" = 30'
FILE NO.:	--
CADD:	DEIS NO 1.DWG
DRAWING NO.:	C-101
SHEET NO.:	1 OF 1



NO.	DATE:	REVISIONS:	BY:
-	-	-	-

PRE - PRELIMAP 2, LOTS 28 & 29
FOR
WAINSCOTT COMMERCIAL CENTER
SITUATED AT
EAST HAMPTON
TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

P.E. SEAL AND SIGNATURE

NELSON & POPE
ENGINEERS & SURVEYORS
572 WALT WHITMAN ROAD, MELVILLE, N.Y. 11747
PHONE (631) 427-5665 FAX (631) 427-5620
WWW.NELSONPOPE.COM

PROJECT NO.:	17071
DRAWN BY:	LB
CHECKED BY:	VB
DATE:	APRIL, 2019
SCALE:	1" = 30'
FILE NO.:	--
CADD:	DEIS NO 1.DWG
DRAWING NO.:	C-101
SHEET NO.:	1 OF 1

APPENDIX B

STUDY OF PARCELS ZONED COMMERCIAL INDUSTRIAL (CI) WITHIN THE TOWN OF EAST HAMPTON

Prepared by Wainscott Commercial Center

September 15, 2017

STUDY OF PARCELS ZONED COMMERCIAL INDUSTRIAL (CI) WITHIN THE TOWN OF EAST HAMPTON

Prepared by:

WAINSCOTT COMMERCIAL CENTER LLC

September 15, 2017

EXECUTIVE SUMMARY[1]

Currently, there are 263 parcels zoned Commercial Industrial (CI)[2] in the Town of East Hampton (the "Town") [3], which together constitute approximately 1.06% of the 24,781 total parcels in the Town[4].

Of those 263 CI zoned parcels, 234 or 88.97% are improved, currently used for CI purposes or subject to pending site plan applications, leaving only 29 or 11.03% of the CI parcels vacant and available for future CI uses. The 29 currently vacant CI lots constitute a mere .12% of the total parcels in the Town.

Of those 29 vacant CI parcels, 12 are owned by the Town and 17 are owned privately.

All 12 Town owned vacant CI parcels, ranging from 1.8 to 5.6 acres in size, and totaling 30.0 acres, are located in the Town's Industrial Park or at the Airport located on or north of Industrial Road in Wainscott.

Of the 17 privately owned vacant CI Parcels, the 4 largest are located at the Wainscott Commercial Center (a/k/a the "Pit") in Wainscott. They are 7.7, 7.2, 4.6 and 4.1 acres, respectively, in size.

The remaining 13 privately owned vacant lots range from .92 to .23 acres in size. Two .92 acre lots are located in the Goodfriend Subdivision off Rt. 114. Two .92 acre lots are located in the Turnpike Commercial Subdivision on Plank Rd. off of Rt. 114. Two additional .92 lots are located in or near the Hardscrabble Subdivision off Rt. 114. Four vacant lots, from .92 to .23 acres, are located in the Springs Fireplace Road Commercial District, the largest CI zoned district in the Town. One .29 acre parcel is located in the Three Mile Harbor Road Commercial District. The remaining 2 vacant CI lots are located near Industrial Rd. in Montauk are .36 and .53 acres in size.

---

[1] This Study of Parcels Zoned Commercial Industrial (CI) Within the Town of East Hampton was prepared by Wainscott Commercial Center, LLC. The following records and sources where consulted in its preparation: (i) Inventory of Parcels Zoned Commercial Industrial (CI) Within the Town of East Hampton dated August 1, 1999 prepared by Land Marks for Sand Land Corporation; (ii) East Hampton Town Zoning Maps in effect as of December 15, 2016 ; (iii) The 2016 Suffolk County Tax Maps for the Town of East Hampton; (iv) the Suffolk County GIS Viewer found on line @ http://gis3.suffolkcountyny.gov/gisviewer/; (v) various Maps prepared by the Town of East Hampton and available on its website @ http://ehamptonny.gov/351/Town-Maps; (v) google aerial images available online @ http://google.com/maps; and (vi) limited parcel inspections by representatives of Wainscott Commercial Center, LLC.

[2] See, *255 Attachment 3,* Town of East Hampton Section 255-11-10 II. Use Table for Commercial Uses in the East Hampton Town Zoning Code for a description of the commercial uses permitted on a CI zoned parcel.

[3] This Study is limited to the Town of East Hampton excluding the entire Village of East Hampton and portion of the Village of Sag Harbor that is located within the Town's geographic boundaries.

[4] Page 3117 of The Town of East Hampton Assessment Roll and Levy Module (Taxable Status Date 03/01/2016).

I. TOWN INDUSTRIAL PARK

As shown on Chart I- "TOWN INDUSTRIAL PARK", there are 33 CI parcels located at the Town's Industrial Park on Industrial Road in Wainscott. Twenty-one of those CI lots are improved or currently used for CI uses. The remaining CI lots are vacant. The 12 Town owned vacant lots range from 1.8 to 5.6 acres in size, and total 30.0 acres in the aggregate. Six of the vacant lots are "Designated Future Aeronautical Uses" pursuant to current FAA requirements.

II. AIRPORT

As shown on Chart II- "AIRPORT", the Town's Airport is comprised of 12 CI Parcels which are all currently used in the Airport's operation and are therefore considered "Improved" for the purposes of this Study.

III. GOODFRIEND PARK SUBDIVISION

As shown on Chart III- "Goodfriend Park Subdivision", there are 17 CI parcels located in that subdivision located off Rt. 114. Thirteen of those lots are improved. Two parcels, located along Rt. 114 are owned by the Town and are preserved in perpetuity. The two remaining CI lots, each .92 acres, are vacant although one of those lots is currently used for parking for adjoining improved CI lots.

IV. TURNPIKE COMMERCIAL SUBDIVISION-PLANK ROAD

As shown on Chart IV-"Turnpike Commercial Subdivision –Plank Road", there are 8 CI parcels located in that subdivision off Rt. 114. Six of the lots are improved and the remaining two .92 acre lots are vacant.

V. LEARNED HAND'S COURT

As shown in Chart V- "Learned Hand's Court Subdivision" all four CI lots located in that subdivision located off of Rt. 114 are improved.

VI. WAINSCOTT COMMERCIAL CENTER (a/k/a "THE PIT")

As shown in Chart VI - Wainscott Commercial Center (a/k/a "the Pit"), 6 CI lots aggregating 70.6 acres comprise the Wainscott Commercial Center in Wainscott. Four of those lots remain vacant. They are 7.7, 7.2, 4.6 and 4.1 acres, respectively, in size. These 4 vacant CI lots are the four largest privately owned vacant CI lots in the Town.

VII. HARDSCRABBLE SUBDIVISION AND ADJACENT CI PARCELS

As shown on Chart VII- "Hardscrabble Subdivision and adjacent CI Parcels", there are 20 CI parcels in this commercial area located off of Rt. 114. Eighteen of the CI parcels are improved and two .92 CI lots remain vacant, although one of those lots is used for parking of trucks, equipment and employee parking in connection with an adjoining improved CI lot.

VIII. THREE MILE HARBOR ROAD DISTRICT

As shown in Chart VIII- Three Mile Harbor Commercial District, 4 of the 5 CI lots located in that commercial district are improved. The remaining vacant lot is .29 acre and is adjacent to an improved CI lot with the same address.

IX. TOWN HALL/PANTIGO PLACE

As shown in Chart IX –Town Hall/Pantigo Place Commercial District, the four CI lots located there are currently improved.

X. BUNKER HILL ROAD

As shown in Chart X- Bunker Hill Road, the six CI lots located there are currently improved.

XI. SPRINGS FIREPLACE ROAD

As shown in Chart XI –Springs Fireplace Road, the Springs Fireplace Road Commercial District is the largest CI zoned district in the Town. It includes a total of 118 parcels of which only 4 are vacant.

Specifically, the Springs Fireplace Road District is comprised of the following:

(i) The Town Recycling Center and Adjoining Lots: 11 parcels. 10 are improved and 1 (238 Springs Fireplace Road- .92 acre) are vacant. A site plan application for a car wash on the .92 acre lot located at 236 Springs Fireplace Road is currently pending before the EH Town Planning Board.

(ii) The East Side of Springs Fireplace Road and Adjacent Lots: 21 parcels located to the south of the Town Recycling Center. 18 are improved. One .87 acre lot located at 77 Queens Ln.; one .23 acre lot located at 5 Sherrill Foster's Path; and one .71 acre lot located at 200 Springs Fireplace Road remain vacant.

(iii) The West Side of Springs Fireplace Road (North of the Bistrian Sand Pit): All 8 CI parcels are improved.

(iv) Bistrian Sand Pit and Adjoining Parcels: 16 parcels all of which are improved.

(v) Patrick Bistrian's Yard and Adjacent Parcels: 63 parcels (almost all of which are less than one acre). All are improved.

XII. MONTAUK INDUSTRIAL ROAD

As shown in Chart XII – Montauk Industrial Road, Montauk's commercial district contains 28 CI parcels. Only 3 remain vacant. One of the vacant lots is unbuildable due to its proximity a wetland. The remaining two vacant lots are .36 and .53 acres in size.

XIII. MONTAUK RECYCLING CENTER

As shown in Chart XIII – Montauk Recycling Center, the Town's Montauk Recycling Center is located on the single CI zoned lot located there.

I. TOWN INDUSTRIAL PARK and AIRPORT

33 PARCELS[1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
4 Industrial Rd.	300-192-3-48	2.5	Vacant
8 Industrial Rd.	300-192-3-49	2.4	Vacant
52 Industrial Rd.	300-192-3-38.1	1.8	Vacant
60 Industrial Rd.[2]	300-192-3-4.1	1.0	Vacant
64 Industrial Rd. [3]	300-192-3.41.1	1.0	Vacant
190 Daniels Hole Rd.[4]	300-191-2-7.1	3.5	Vacant
190 Daniels Hole Rd.	300-191-2-7.2	3.9	Vacant
No. # Industrial Rd.	300-192-3-46	2.5	Vacant
190 Daniels Hole Rd.	300-191-2-2	2.2	Vacant
190 Daniels Hole Rd.	300-191-2-3	2.2	Vacant
190 Daniels Hole Rd.	300-192-3-47	2.1	Vacant
N/A[5]	N/A[6]	5.0	Vacant
No # Daniels Hole Rd.	300-192-3-5.1	2.0	Improved
7 Industrial Rd.	300-191-3-5.2	1.7	Improved
39 Industrial Rd.	300-192-3-7.2	3.7	Improved
41 Industrial Rd.	300-192-3-7.3	2.2	Improved
131 Wainscott NW Rd.	300-192-3-37.1	5.6	Improved
57 Industrial Rd.	300-192-3-34	1.7	Improved- Town Impound
69 Industrial Rd.	300-192-3-33	1.9	Improved
75 Industrial Rd.	300-192-3-45.1	2.5	Improved
77 Industrial Rd.	300-192-3-54	1.8	Improved
N/A[7]	300-191-2-11	8.4	Improved
95 Industrial Rd.	300-191-2-1	3.7	Improved
50 Industrial Rd.	300-192-3-50	4.1	Improved
54 Industrial Rd.	300-192-3-39	1.8	Improved
56 Industrial Rd.	300-192-3-51	.9	Improved
66 Industrial Rd.	300-192-3-53	.92	Improved
72 Industrial Rd.[8]	300-192-3-42.1	3.5	Improved
N/A	300-191-2-9	2.5	Improved
N/A	300-191-2.8	3.7	Improved

[1] 24 Parcels in Town Industrial Park and 6 Airport Lots owned by Town. See Map #1 Attached.
[2] CI Zoned- Designated Future Aeronautical Uses
[3] CI Zoned- Designated Future Aeronautical Uses
[4] CI Zoned- Designated Future Aeronautical Uses
[5] CI Zoned- Designated Future Aeronautical Uses
[6] Currently p/o SCTM# 300-180-1-8.13 (Airport Parcel)
[7] CI Zoned- Designated Future Aeronautical Uses
[8] CI Zoned- Designated Future Aeronautical Uses

N/A	300-191-2-7.3	2.4	Improved
N/A	300-191-2-7.4	2.6	Improved
88 Industrial Rd.	300-191-3-1.1	11.8	Improved

II. AIRPORT [9]

12 PARCELS

Address	SCTM#	ACRES	IMPROVED/VACANT
Main Airport Lot	300-180-1-8.13	271	Improved
Terminal	300-181-2-2.3	.69	Improved
N/A	300-181-3-3	.28	Improved
N/A	300-181-3-2	.28	Improved
N/A	300-181-3-1.1	5.3	Improved
N/A	300-181-3-1.3	3.4	Improved
N/A	300-181-3-2.6	.28	Improved
N/A	300-181-3-2.5	.28	Improved
N/A	300-181-3-2.4	.29	Improved
N/A	300-181-3-2.3	.52	Improved
N/A	300-181-3-2.2	.70	Improved
N/A	300-181-3-2.1	.90	Improved

[9] See Map #2. Excludes Lot listed in Table I above as being currently p/o SCTM # 300-180-1.8.13 (Airport Parcel).

III. GOODFRIEND PARK SUBDIVISION

17 Parcels[1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
N/A	300-156-1-1.3	[ ]	Preserved/Town
3 Goodfriend Dr.	300-181-4-13	.92	Vacant (Parking)
5 Goodfriend Dr.	300-181-4-12	.92	Improved
7 Goodfriend Dr.	300-181-4-11	.92	Improved
11 Goodfriend Dr.	300-181-4-1.1	.95	Improved
13 Goodfriend Dr.	300-181-4-4.8	.95	Improved
15 Goodfriend Dr.	300-181-4-4.7	**.92**	Improved
17/19 Goodfriend Dr.	300-181-4-1.9	1.84	Improved
21 Goodfriend Dr.	300-181-4-1.4	.92	Vacant
28 Goodfriend Dr.	300-181-4-1.3	.92	Improved
26 Goodfriend Dr.	300-181-4-1.2	.92	Improved
24 Goodfriend Dr.	300-181-4-1.1	.92	Improved
18 Goodfriend Dr.	300-181-4-4	.94	Improved
6-16 Goodfriend Dr.	300-181-1-4	.95	Improved
4 Goodfriend Dr.	300-181-4-2	.92	Improved
2 Goodfriend Dr.	300-156-1-1.1	.96	Improved
N/A	300-156-1-1.2	[ ]	Preserved/Town

[1] See Map #1 attached.

IV. TURNPIKE COMMERCIAL SUBDIVISION -PLANK ROAD

8 PARCELS[1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
2 Plank Rd.	300-156-1-8.2	.92	Vacant
4 Plank Rd.	300-156-1-8.3	.92	Vacant
6 Plank Rd.	300-156-1-8.4	.92	Improved
8 Plank Rd.	300-156-1-8.5	.92	Improved
10 Plank Rd.	300-156-1-8.6	.92	Improved
12 Plank Rd.	300-156-1-8.7	.92	Improved
14 Plank Rd.	300-181-6-1.0	.93	Improved
16 Plank Rd.	300-181-6-2.0	.92	Improved

[1] See Map # 1 attached.

V. LEARNED HAND'S COURT

4 Parcels[1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
1 Learned Hands Ct.	300-184-1-8.7	1.0	Improved
2 Learned Hands Ct.	300-184-1-8.10	.86	Improved
3 Learned Hands Ct.	300-184-1-8.11	2.2	Improved
4 Learned Hands Ct.	300-184-1-8.12	.66	Improved

[1] See Map #1 attached.

VI. WAINSCOTT COMMERCIAL CENTER (a/k/a "THE PIT")

6 PARCELS[1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
120 Wainscott NW Rd.	300-192-2-6.4	7.3	Vacant
110 Wainscott NW Rd.	300-192-2-6.5	4.2	Vacant
104 Wainscott NW Rd.	300-192-2-6.6	38	Improved
30 Old Montauk Hwy.	300-192-2-6.3	9.0	Improved
36 Old Montauk Highway	300-192-2-6.7	4.1	Vacant
57 Hedges Ln.	300-192-2-6.2	8.0	Vacant

[1] See Map # 3 attached.

VII. Hardscrabble Subdivision and Adjacent CI Parcels

20 PARCELS [1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
3 Cove Hollow Rd.	300-185-2-2	17.58	Improved
18 Cove Hollow Rd.	300-185-2-37	2.48	Improved
50 Rt. 114	300-185-2-38	.20	Improved
42/48 Rt. 114	300-185-2-39	1.29	Improved
39 Rt. 114	300-185-2.-34	1.07	Improved
53 Rt. 114	300-185-2-35.3	.28	Improved
45 Rt. 114	300-185-2-35.2	.35	Improved
51 Rt. 114	300-185-2-35.4	.49	Improved
No. # Rt. 114	300-185-2-49	.15	Improved
No. #Rt. 114	300-185-2-48	.31	Improved
1 Cove Hollow Rd.	300-185-1-31.4	2.7	Improved
6 Hardscrabble Ct.	300-185-1-31.19	2.0	Improved
4 Hardscrabble Ct.	300-185-1-31.09	.92	Vacant-Parking
8 Hardscrabble Ct.	300-185-1-31.10	.92	Improved
10 Hardscrabble Ct.	300-185-1-31.11	.92	Improved
9 Hardscrabble Ct.	300-185-1-31.12	.94	Improved
7 Hardscrabble Ct.	300-185-1-31.13	1.88	Improved
5 Hardscrabble Ct.	300-185-1-31.14	.92	Improved
3 Hardscrabble Ct.	300-185-1-31.15	.92	Vacant
[ ]	300-185-1-31.16	[ ]	Preserved

[1] See Map # 3 attached.

VIII. THREE MILE HARBOR ROAD DISTRICT

5 PARCELS[1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
46 Three Mile Harbor Rd.	300-161-4-1	.37	Improved
46 Three Mile Harbor Rd.	300-161-4-2	.29	Vacant
37 Three Mile Harbor Rd.	300-161-3-27	.59	Improved
33 Three Mile Harbor Rd.	300-161-3-28	.66	Improved
31 Three Mile Harbor Rd.	300-161-3-30.4	.22	Improved

[1] See Map # 4 attached.

IX. TOWN HALL/ PANTIGO PLACE

4 PARCELS[1]

ADDRESS	SCTM#	ACRES	IMPROVED /VACANT
159 Pantigo Rd.	300-188-1-4	9.5	Improved/Town Hall
300 Pantigo Place	300-188-3-1.6	Various	Improved/Office Condominiums
200 Pantigo Place	300-188-1-8.3	-	Improved/ Medical Offices
79 Springs Close Hwy.	300-165-5-14.3	1.04	Improved

[1] See Map # 4 attached.

X. BUNKER HILL ROAD

6 PARCELS[1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
46 Bunker Hill Rd.	300-173-1-1.1	.94	Improved
36 Bunker Hill Rd.	300-173-1-2.1	.64	Improved
30 Bunker Hill Rd.	300-173-1-3.1	.58	Improved
24 Bunker Hill Rd.	300-173-1-4.0	.27	Improved
18 Bunker Hill Rd.	300-173-1-5.1	.60	Improved
12 Bunker Hill Rd.	300-173-1-6.0	.24	Improved

[1] See Map # 4 attached.

XI. SPRINGS FIREPLACE ROAD

TOWN RECYCLING CENTER AND ADJACENT LOTS

11 Parcels[1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
260 Springs Fireplace Rd.	300-145-3-16.1	40.00	Improved (Town Recycling Center)
260 Springs Fireplace Rd.	300-145-3-17	.23	Improved (Town Recycling Center)
260 Springs Fireplace Rd.	300-145-3-15	.23	Improved (Town Recycling Center)
260 Springs Fireplace Rd.	300-145-3-18	.45	Improved (Town Recycling Center)
260 Springs Fireplace Rd.	300-145-3-19	.27	Improved (Town Recycling Center)
260 Springs Fireplace Rd.	300-145-3-14	.69	Improved (Town Recycling Center)
260 Springs Fireplace Rd.	300-145-3-20	.22	Improved (Town Recycling Center)
260 Springs Fireplace Rd.	300-145-3-13	.27	Improved (Town Recycling Center)
236 Springs Fireplace Rd.	300-145-3-12	.74	Improved (Site Plan Application)
238 Springs Fireplace Rd.	300-145-2-11	.92	Vacant
242 Springs Fireplace Rd.	300-145-2-13.1	.92	Improved (Town Wastewater Plant)

EAST SIDE OF SPRINGS FIREPLACE ROAD AND ADJACENT CI LOTS

21 PARCELS[2]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
13 Sherrill Foster's Path	300-145-3-12.2	.61	Improved
11 Sherrill Foster's Path	300-145-3-11.1	.55	Improved

[1] See Map # 2 attached.
[2] See Map # 4 attached.

9 Sherrill Foster's Path	300-145-3-21.2	.3	Improved
220 Springs Fireplace Rd.	300-145-3-22.1	1.2	Improved
224 Springs Fireplace Rd.	300-145-3-10.1	.34	Improved
5 Sherrill Foster's Path	300-145-5-13	.23	Vacant
3 Sherrill Foster's Path	300-145-5-16	.23	Improved
77 Queens Ln.	300-145-5-3.1	.87	Vacant
74 Queens Ln.	300-145-5-22.1	.38	Improved
218 Springs Fireplace Rd.	300-145-5-1	.33	Improved
208 Springs Fireplace Rd.	300-145-5-24.1	.37	Improved
204 Springs Fireplace Rd.	300-147-4-1	.34	Improved
200 Springs Fireplace Rd.	300-147-4-2.4	.71	Vacant
188 Springs Fireplace Rd.	300-147-4-34.3	.22	Improved
188 Springs Fireplace Rd.	300-147-4-35.1	.3	Improved
180 Springs Fireplace Rd.	300-147-6-5	.46	Improved
184 Springs Fireplace Rd.	300-147-6-1	.21	Improved
182 Springs Fireplace Rd.	300-147-6-2	.38	Improved
170 Springs Fireplace Rd.	300-147-8-3.8	.36	Improved
164 Springs Fireplace Rd.	300-147-9-1.1	.25	Improved
162 Springs Fireplace Rd.	300-147-9-2.1	.25	Improved

WEST OF SPRINGS FIREPLACE ROAD (NORTH OF BISTRIANS' PIT)

8 Parcels[3]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
257 Springs Fireplace Rd.	300-119-5-5	4.15	Improved
80 Old Fireplace Rd.	300-123-3-9.02	1.01	Improved
68 Muir Blvd.	300 -123-3-6.1	.58	Improved
62 Muir Blvd.	300 -123-3-7.2	.71	Improved
61 Muir Blvd.	300 -123-5-26	.24	Improved
57 Muir Blvd.	300 -123-5-22.1	.28	Improved
81 Harbor View Ave.	300-123-5-25.1	.87	Improved (Site Plan Application)
72 Harbor View Ave.	300-123-6-12	1.0	Improved

[3] See Map # 2 attached.

BISTRIAN SAND PIT and ADJOINING PROPERTIES

16 PARCELS[4]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
22 Central Ave.	300-144-1-22.1	60.1	Improved -Bistrians' Pit
223 Springs Fireplace Rd.	300-143-1-9.1	64.0	Improved -Bistrians' Pit
26 Parsons Ave.	300-144-1-16.1	.09	Out parcel - Bistrians Pit
259 Springs Fire Place Road	300-143-1-80	.62	Improved - Bistrians' Pit
223 Springs Fireplace Rd.	300-143-1-1	.55	Improved -Bistrians' Pit
191 Three Mile Harbor Rd.	300-143-4-12.1	.23	Improved -Bistrians' Pit
211 Springs Fireplace Rd.	300-143-4-12.3	.50	Improved -Bistrians' Pit
West Drive	300-143-1-12.4	2.15	Improved
West Drive	300-143-1-12.5	2.05	Improved
West Drive	300-143-1-12.6	1.85	Improved
215 Springs Fireplace Rd.	300-145-4-13-1	.33	Improved
West Dr.	300-145-4-12.2	.24	Improved
211 Springs Fireplace Rd.	300-145-4-12.3	.26	Improved
209 Springs Fireplace Rd.	300-145-4-12.4	.9	Improved
207 Springs Fireplace Rd.	300-145-4-11.0	.24	Improved
2 West Dr.	300-145-4-10	.30	Improved

PATRICK BISTRIAN'S YARD AND ADJACENT PROPERTIES

63 Parcels[5]

4 West Dr.	300-145-4-9	.23	Improved
201 Springs Fireplace Rd.	300-145-4-8.3	.14	Improved – Bistrians' Pit
No # West Lane	300-147-4-8.2	.40	Improved –Bistrians' Pit
52 West Lane	300-147-3-1.1	.14	Improved -Bistrians' Pit

[4] See Map # 2 attached.
[5] See Map # 2 attached.

30 Jefferson Ave.	300-147-3-8.1	.60	Improved -Bistrians' Pit
30 Jefferson Ave.	300-147-3-9.1	.60	Improved -Bistrians' Pit
No # Pennsylvania Ave.	300-147-3-7.1	.28	Improved -Bistrians' Pit
56 West Dr.	300-145-4-5.1	.15	Improved- Pat Bistrian's Yard
56 West Dr.	300-145-4-5.2	.15	Improved- Pat Bistrian's Yard
54 West Dr.	300-145-4-6.2	.21	Improved- Pat Bistrian's Yard
54 West Dr.	300-145-4-6.1	.12	Improved- Pat Bistrian's Yard
54 West Dr.	300-145-4-7	.09	Improved- Pat Bistrian's Yard
52 West Dr.	300-147-3-1	.18	Improved- Pat Bistrian's Yard
52 West Dr.	300-147-3-2	.05	Improved- Pat Bistrian's Yard
50 West Dr.	300-147-3-3	.09	Improved- Pat Bistrian's Yard
50 West Dr.	300-147-3-4	.09	Improved- Pat Bistrian's Yard
50 West Dr.	300-147-3-5.1	.18	Improved- Pat Bistrian's Yard]
48 West Dr.	300-147-2-2.24	1.1	Improved Pat Bistrian's Yard
29 Jefferson Ave.	300-147-2-6.1	3.6	Improved- Pat Bistrian's Yard
13 Jefferson Ave.	300-147-2-7	.13	Improved- Pat Bistrian's Yard
13 Jefferson Ave.	300-147-2-9	.37	Improved Pat Bistrian's Yard]
11 Jefferson Ave.	300-147-2-1	.27	Improved-Pat Bistrian's Yard]
9 Jefferson Ave.	300-147-2-14.3	.44	Improved- Pat Bistrian's Yard
9 Jefferson Ave.	300-147-2-12.3	.09	Improved- Pat Bistrian's Yard
7 Jefferson Ave.	300-146-2-13.3	.34	Improved- Pat Bistrian's Yard
8 Jefferson Ave.	300-147-7 -5.1	1.6	Improved -Pat Bistrian's Yard
175 Springs Fireplace Rd.	300-147-3-53.02	.05	Improved- Pat Bistrian's Yard
3 Washington Ave.	300-147-3-14.1	.17	Improved- Pat Bistrian's Yard

No. # Washington Ave.	300-147-3-15.1	.22	Improved- Pat Bistrian's Yard
No # Washington Ave.	300-147-3-16.1	.22	Improved- Pat Bistrian's Yard
No # Washington Ave.	300-147-3-17.1	.06	Improved- Pat Bistrian's Yard
No # Washington Ave.	300-147-3-18.1	.11	Improved- Pat Bistrian's Yard
No # Washington Ave.	300-147-3-19.1	.06	Improved -Pat Bistrian's Yard
11 Washington Ave	300-147-7-4.2	.57	Improved -Pat Bistrian's Yard
No # Washington Ave.	300-147-2-19.1	3.6	Improved -Pat Bistrian's Yard
179 Springs Fire Place Rd.	300-147-3-52	.20	Improved
185 Springs Fire Place Rd.	300-147-3-51	.05	Improved
185 Springs Fire Place Rd.	300-147-3-50	.05	Improved
185 Springs Fire Place Rd.	300-147-3-46	.05	Improved
191 Springs Fire Place Rd.	300-147-3-56.1	.46	Improved
185 Springs Fireplace Rd.	300-147-3-45	.05	Improved
195 Springs Fireplace Rd.	300-147-3-44	.05	Improved
195 Springs Fireplace Rd.	300-147-3-43.1	.15	Improved
195 Springs Fireplace Rd.	300-147-3-57	.09	Improved
195 Springs Fireplace Rd.	300-147-3-27	.23	Improved
195 Springs Fireplace Rd.	300-147-3-28	.23	Improved
199 Springs Fire Pace Rd.	300-147-3-4.1	.46	Improved
201 Springs Fireplace Rd.	300-147-3-35.1	.55	Improved
135 Springs Fireplace Rd.	300-147-7-28	.37	Improved
16 Washington Ave.	300-147-7-6	.28	Improved
No. # Springs Fireplace Rd.	300-147-7-27.1	.25	Improved
14 Washington Ave.	300-147-7-9.2	.25	Improved

139 Springs Fireplace Rd.	300-147-7-26.1	.32	Improved
141 Springs Fireplace Rd.	300-147-7-25	.23	Improved
10 Washington Ave.	300-147-7-12.1	.41	Improved
145 Springs Fireplace Rd.	300-147-7-24	.10	Improved
155 Springs Fireplace Rd.	300-147-7-23	.31	Improved
8 Washington Ave.	300-147-7-13	.28	Improved
157 Springs Fireplace Rd.	300-147-7-22.1	.46	Improved
159 Springs Fireplace Rd.	300-147-7-21	.25	Improved
161 Springs Fireplace Rd.	300-147-7-2	.26	Improved
2 Washington Ave.	300-147-7-18	.23	Improved
163 Springs Fireplace Rd	300-147-7-19	.26	Improved

XII. MONTAUK INDUSTRIAL ROAD

28 PARCELS[1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
215 Second House Rd.	300-27-2-17	37	Improved- MTA/LIRR
16 Second House Rd.	300-27-2-19	.23	Improved
60 North Shore Rd.	300-27-4-19	1.25	Improved
54 North Shore Rd.	300-27-4-18	.78	Improved
50 North Shore Rd.	300-27-4-17	.80	Improved
46 North Shore Rd.	300-27-4-16	.83	Improved
42 North Shore Rd.	300-27-4-15	.86	Improved
36 North Shore Rd.	300-27-4-14	.34	Improved
No # North Shore Rd.	300-27-4-32	.56	Vacant / Wetland
32 North Shore Rd.	300-27-4-13	.53	Improved
28 North Shore Rd.	300-27-4-12	.40	Improved
24 North Shore Rd.	300-27-4-11	.56	Improved
18 North Shore Rd.	300-27-4-10	.98	Improved
12 North Shore Rd.	300-27-4-33.1	.52	Improved
11 North Shore Rd.	300-27-4-8.15	.33	Improved
9 Second House Rd.	300-27-4-8.12	.36	Vacant
10 Second House Rd.	300-27-4-8.17	.53	Vacant
10 North Shore Rd.	300-27-4-8.8	.42	Improved (Site Plan Approval)
7 Second House Rd.	300-27-4-8.4	1.21	Improved
100 Second House Rd.	300-27-4-8.6	.26	Improved
72 Second House Rd.	300-27-4-7	2.5	Improved
98 Second House Rd.	300-27-4-8.1	.29	Improved
96 Second House Rd.	300-27-4-8.9	.71	Improved
94 Second House Rd.	300-27-4-4.6	1.59	Improved
86 Second House Rd.	300-27-4-4.4	.76	Improved
90 Second House Rd.	300-27-4-5	.16	Improved
82 Second House Rd.	300-27-4-4.3	.68	Improved/Town
72 Second House Rd.	300-27-4-2.1	2.49	Improved

[1] See Map # 6 attached. Excludes Montauk Recycling Center (SCTM # 44-1-1); See Map # 5 attached.

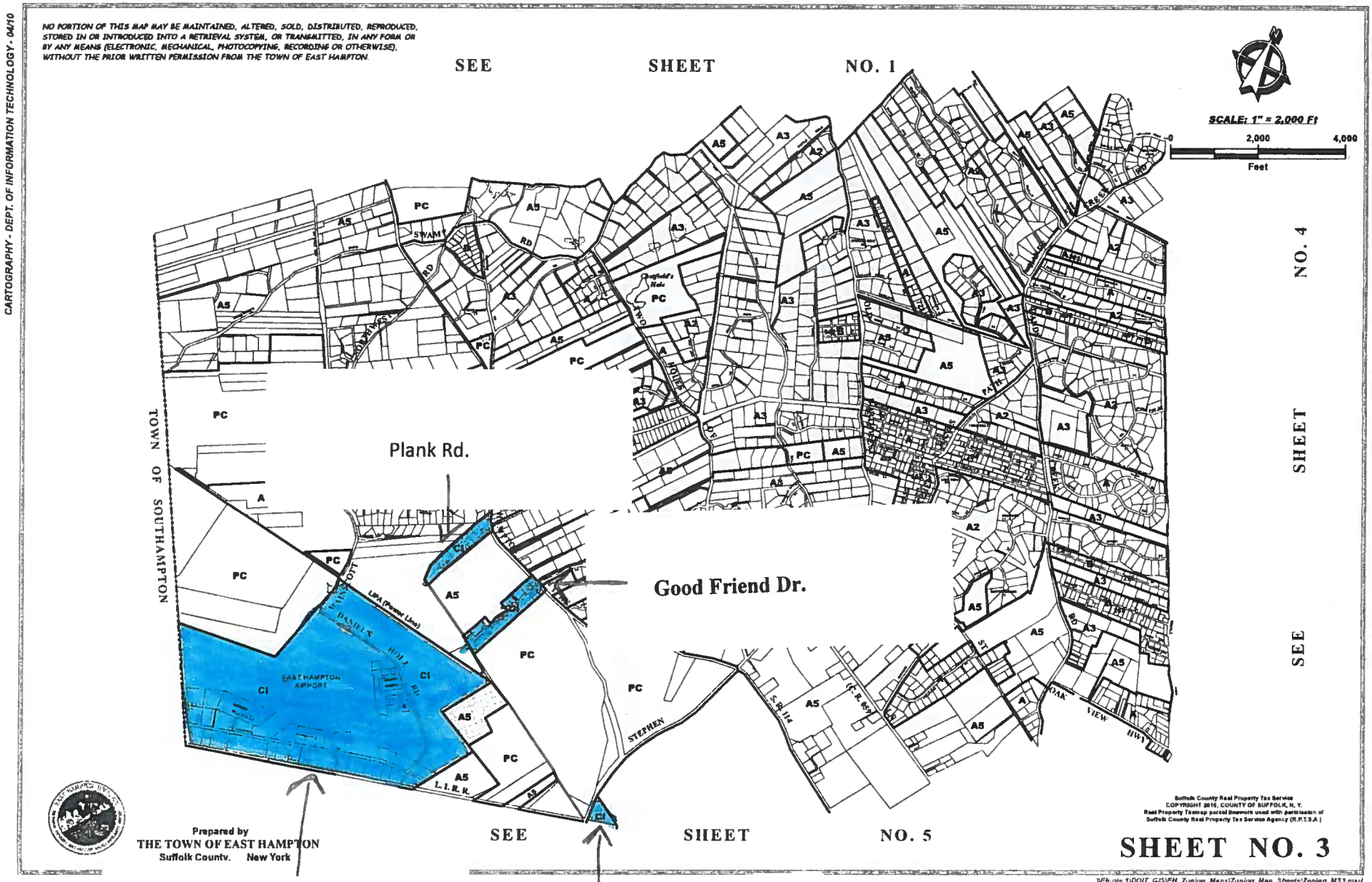
XIII. MONTAUK RECYCLING CENTER

1 Parcels[1]

ADDRESS	SCTM#	ACRES	IMPROVED/VACANT
365 Montauk Highway	300-44-1-9.1	29.9	Improved/ Montauk Recycling Center

[1] See Map # 7 attached.

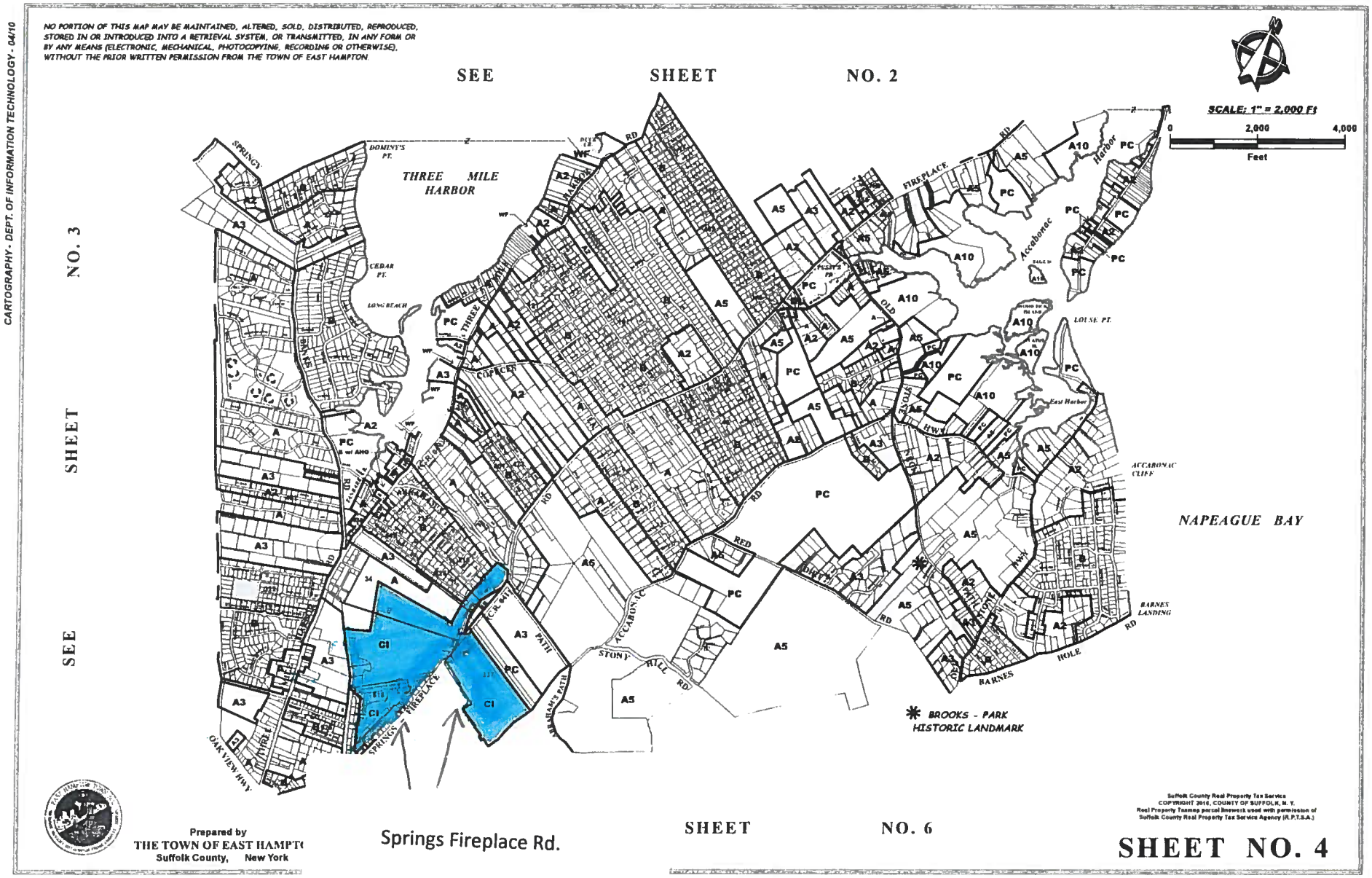
MAP # 1



Town Industrial Park

Learned Hands Ct.

MAP # 2



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MAP # 3

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SEE SHEET NO. 3

SCALE: 1" = 2,000 Ft

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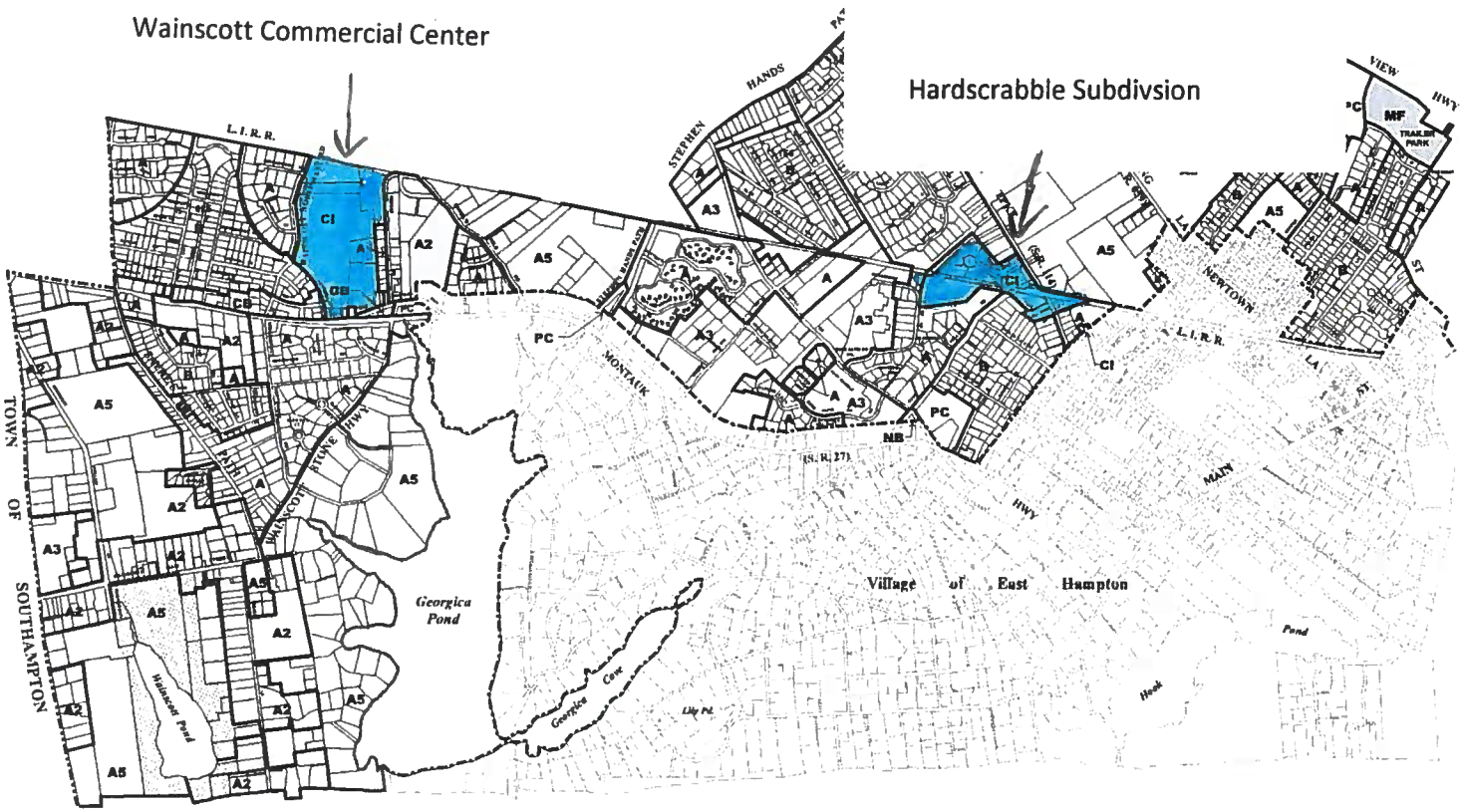
Feet



SEE SHEET NO. 6

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Suffolk County, New York

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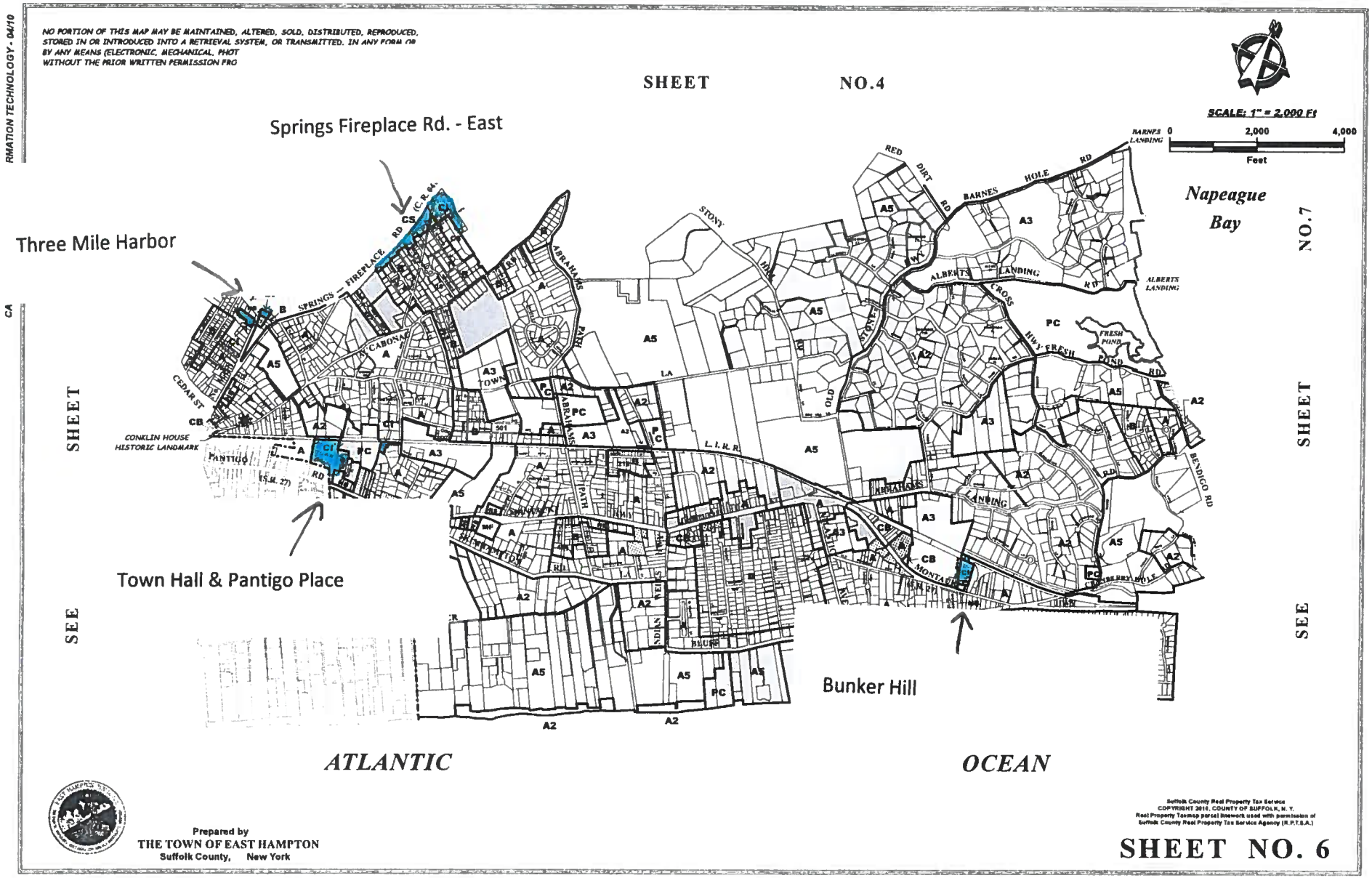
MAP # 4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SHEET NO.4
SCALE: 1" = 2,000 Ft
0 2,000 4,000
Feet
Springs Fireplace Rd. - East
Three Mile Harbor
Napeague Bay
Town Hall & Pantigo Place
Bunker Hill
CONKLIN HOUSE HISTORIC LANDMARK
SHEET NO.7
SEE SHEET
ATLANTIC OCEAN
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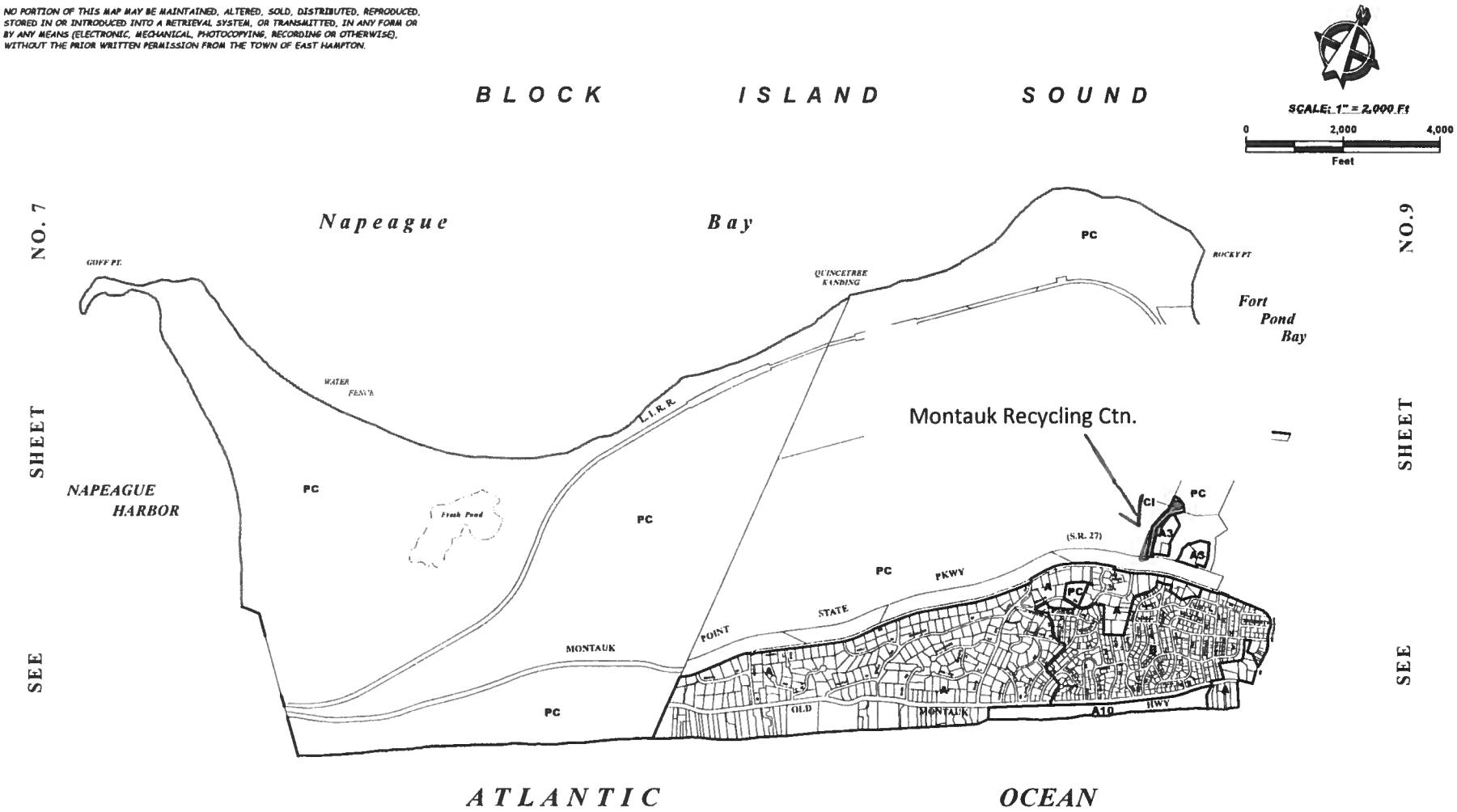

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SHEET NO. 8

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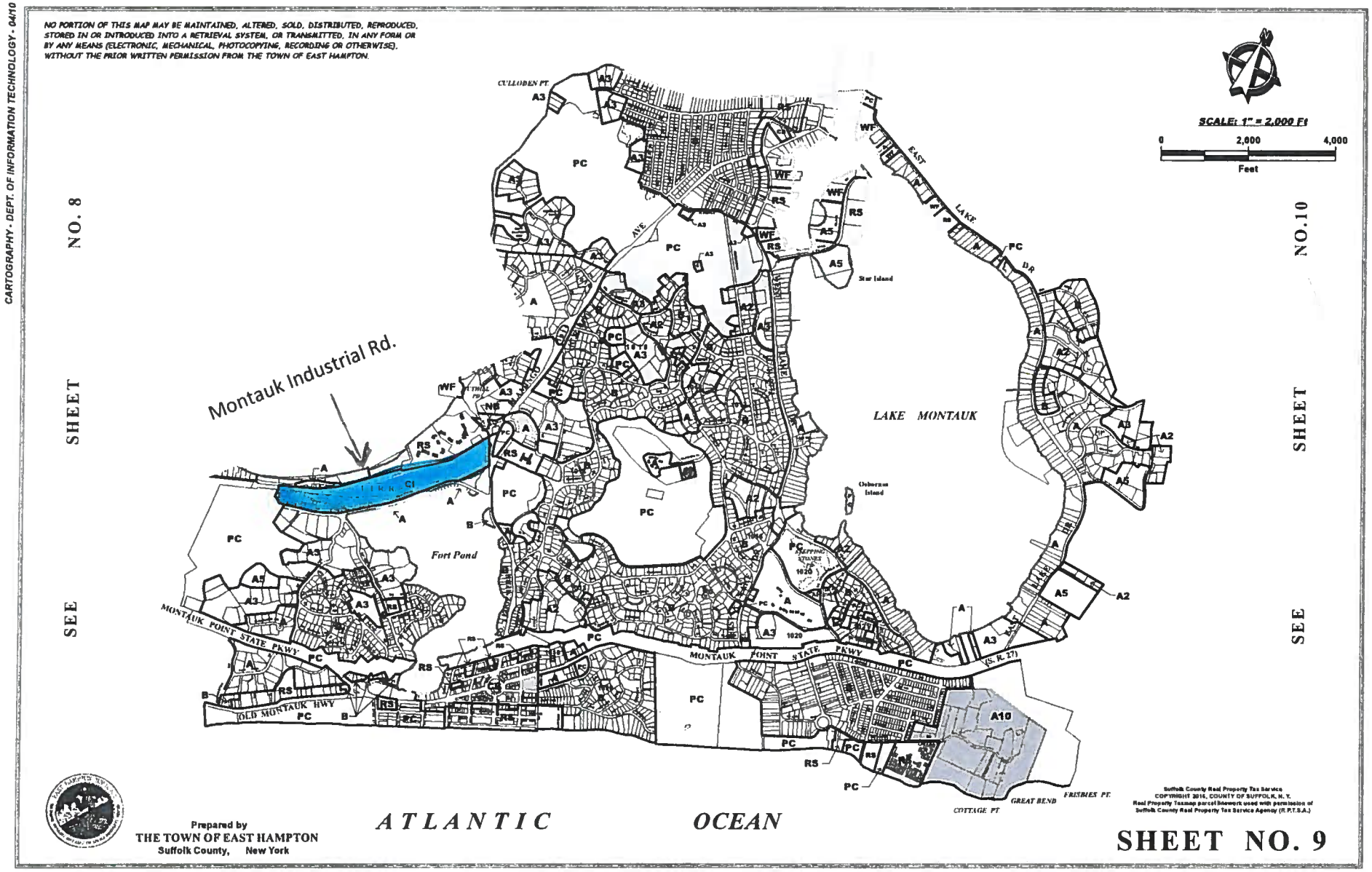
MAP # 6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CARTOGRAPHY - DEPT. OF INFORMATION TECHNOLOGY - 04/10
SCALE: 1" = 2,000 Ft
0
2,000
4,000
Feet
SEE SHEET NO. 8
SEE SHEET NO.10
Montauk Industrial Rd.
LAKE MONTAUK
Fort Pond
Star Island
Osborne Island
CULLODEN PT.
EAST LAKE DR.
MONTAUK POINT STATE PKWY.
OLD MONTAUK HWY
(S. R. 27)
COTTAGE PT.
GREAT BEND
FRISBIES PT.
ATLANTIC OCEAN
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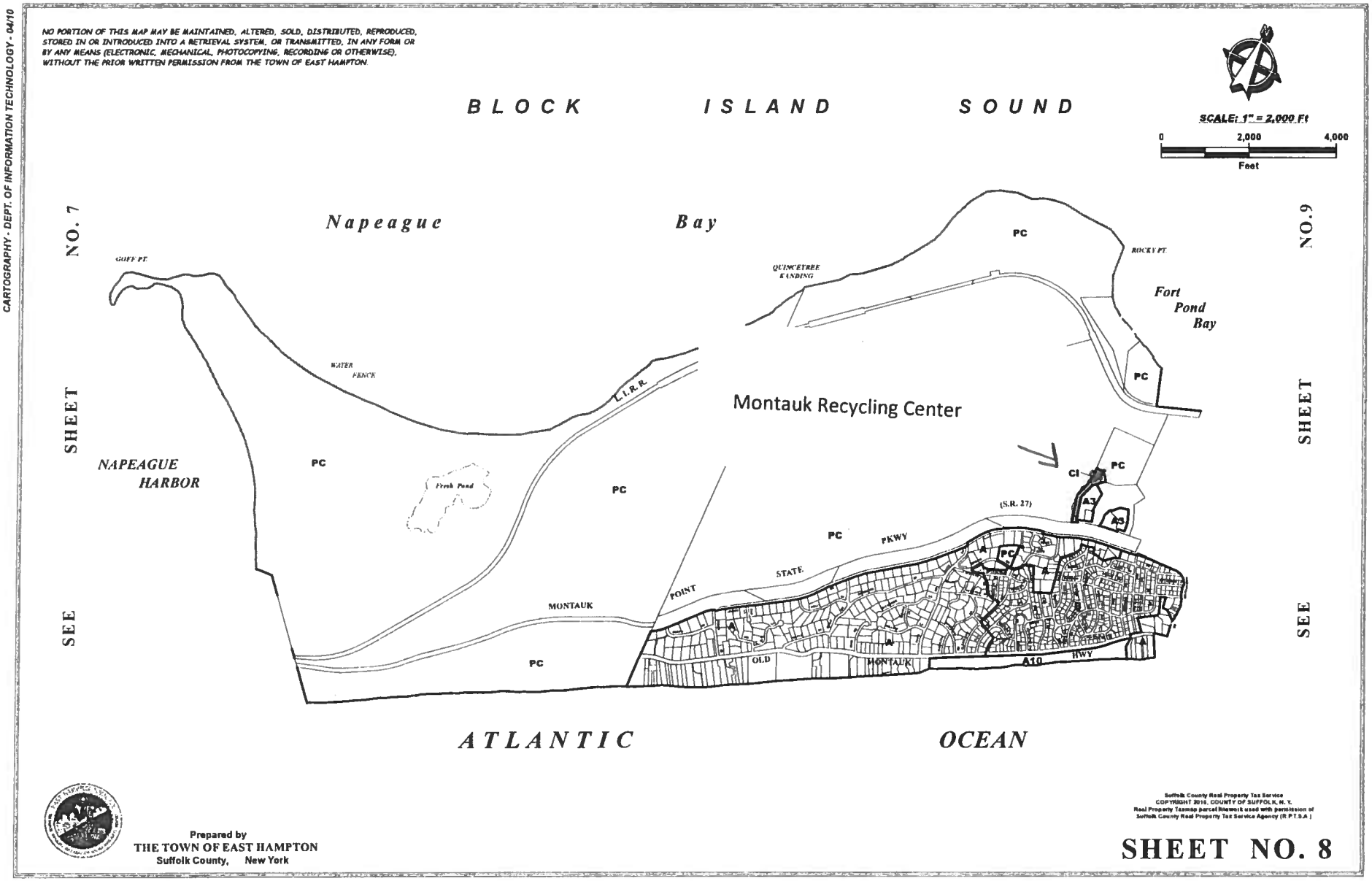
MAP #7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CARTOGRAPHY - DEPT. OF INFORMATION TECHNOLOGY - 04/10
BLOCK ISLAND SOUND
SCALE: 1" = 2,000 Ft
0 2,000 4,000
Feet
Napeague Bay
NO. 7
SHEET
SEE
NO. 9
SHEET
SEE
GUFF PT.
WATER FENCE
L.I.R.R.
NAPEAGUE HARBOR
Fresh Pond
PC
QUINCETREE LANDING
ROCKY PT.
Fort Pond Bay
Montauk Recycling Center
CI
A3
A5
(S.R. 27)
PKWY
STATE
POINT
MONTAUK
OLD
A10
HWY
ATLANTIC OCEAN
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APPENDIX C

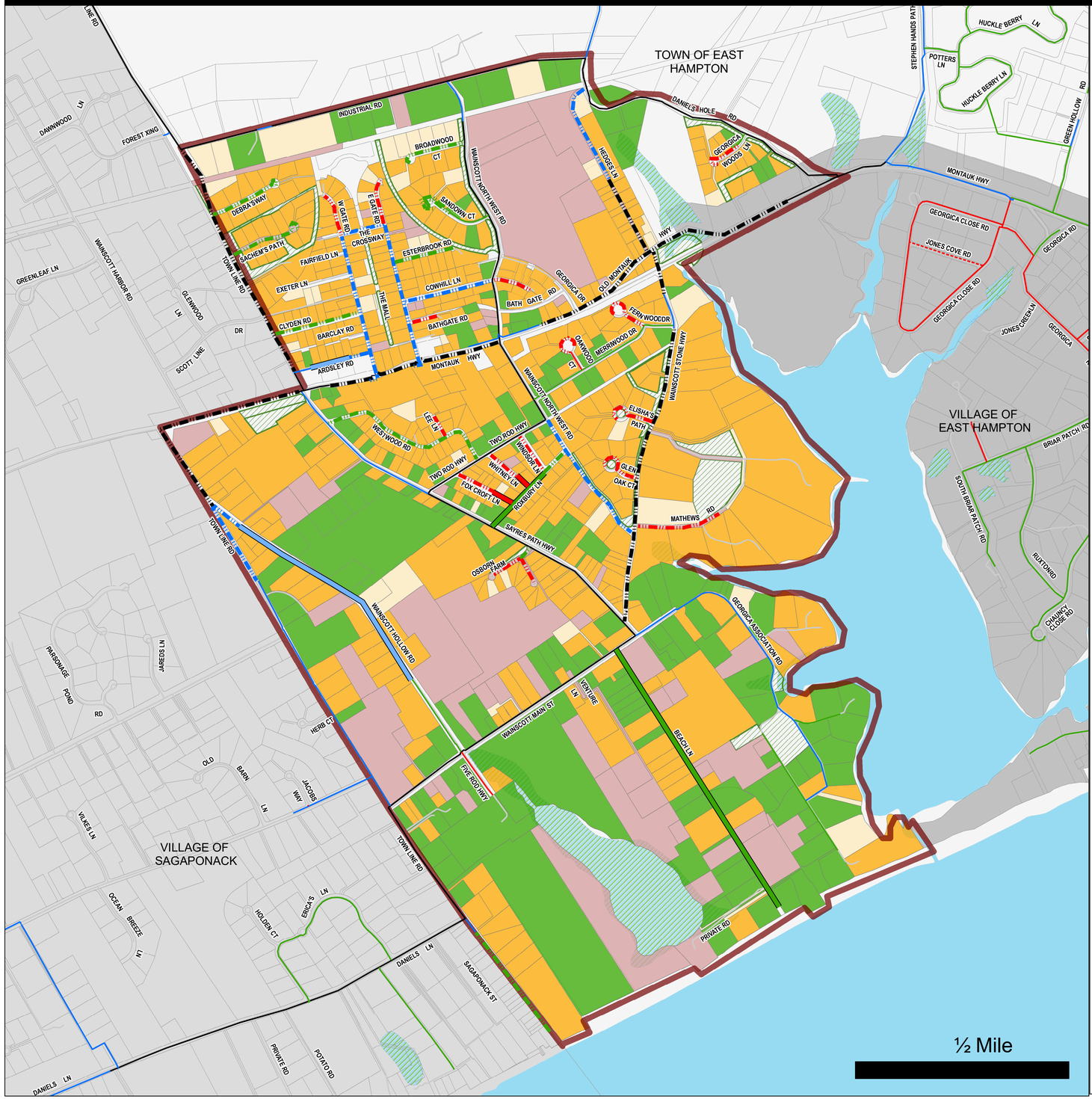
WAINSCOTT WATER SUPPLY DISTRICT MAP

Wainscott Water Supply District

Land Use Types & SCWA Infrastructure

(848 Total Parcels)

Draft as of 05/08/2018

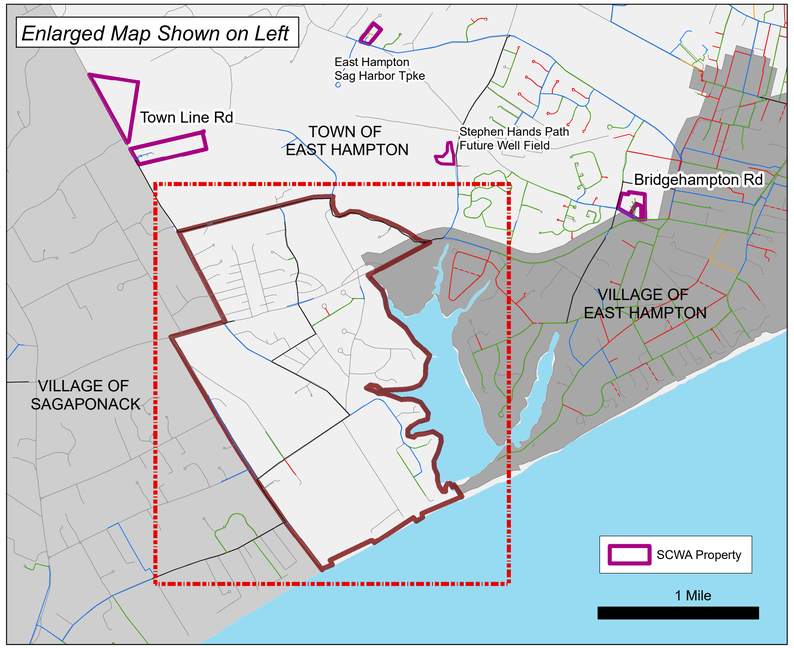


Land Use Type

- Customer (172)
- Developed, Non-Customer (520)
- Protected (28)
- Service Not Required (71)
- Vacant (57)
- Roadway
- Wainscott District
- Parcel
- Wetland

Village/Town

- Town of East Hampton
- Village of Sagaponack
- Village of East Hampton



SCWA Existing Water Main

- 4" and Smaller
- 6"
- 8"
- 12"
- 16"

SCWA Recently Installed or Pending Water Main

- 6"
- 8"
- 12"

SCWA Proposed Water Main

- 6"
- 8"
- 12"
- 16"

Map Produced by SCWA GIS/:KRS/, 05_08_2018
\\NASGRiver\GIS Programs\GIS\Programs\arc_map_mxd
\SCWA\2018-59 (2017-53)\\2018-59 (2017-53) Wainscott Water Supply District with land use types DRAFT for East Hampton.mxd

APPENDIX D-1

SOIL BORING LOGS

East Coast Geoservices

East Coast Geoservices, LLC
P.O. Box 2806
Huntington Station, New York 11746
Phone: (631) 513-8595
www.info@eastcoastgeoservices.com

SOIL BORING LOG

BORING I.D. B-1	**PROJECT NO.** NPV# 17071	**PROJECT NAME** Wainscott Commercial Center		
LOGGED BY Eric Arnesen	**APPROVED BY** Eric Arnesen	**LOCATION** 30 Montauk Highway Wainscott, New York		
DRILLING CONTRACTOR East Coast Geoservices, LLC	**DRILLER** Jonathan McGinn			
DRILL BIT DIAMETER/TYPE 2.0 inch/Core Barrel	**BOREHOLE DIAMETER** 2.0 inches	**BORING LOCATION DESCRIPTION** Located in the southern portion of the property.		
LAND SURFACE ELEVATION NA	**COORDINATES** NA	**DRILLING EQUIPMENT/METHOD** Power Probe 9100		**SAMPLING METHOD** Core Barrel
DEPTH OF BORING 8 feet	**DEPTH TO WATER** ~5.5 feet bgs	**START/FINISH DATE** 13-Oct-17		**BACKFILL** Mason Sand

Sample Depth (feet)	Sample Interval (feet)	Visual Description	Group Symbol	Blow Counts	PID (ppm)	Remarks
4	0-4	All brown fine sand, trace gravel.	SP	NA	NA	3.5 ft recovered
8	4-8	All brown fine sand.	SP	NA	NA	3.0 ft recovered DTW @ ~ 5.5 feet bgs Boring Complete
12						
16						
20						
24						
28						
32						
36						
40						
44						
48						

East Coast Geoservices, LLC
P.O. Box 2806
Huntington Station, New York 11746
Phone: (631) 513-8595
www.info@eastcoastgeoservices.com

SOIL BORING LOG

BORING I.D. B-2	**PROJECT NO.** NPV# 17071	**PROJECT NAME** Wainscott Commercial Center		
LOGGED BY Eric Arnesen	**APPROVED BY** Eric Arnesen	**LOCATION** 30 Montauk Highway Wainscott, New York		
DRILLING CONTRACTOR East Coast Geoservices, LLC	**DRILLER** Jonathan McGinn			
DRILL BIT DIAMETER/TYPE 2.0 inch/Core Barrel	**BOREHOLE DIAMETER** 2.0 inches	**BORING LOCATION DESCRIPTION** Located in the southwest quadrant of the property.		
LAND SURFACE ELEVATION NA	**COORDINATES** NA	**DRILLING EQUIPMENT/METHOD** Power Probe 9100		**SAMPLING METHOD** Core Barrel
DEPTH OF BORING 8 feet	**DEPTH TO WATER** ~6.0 feet bgs	**START/FINISH DATE** 13-Oct-17		**BACKFILL** Mason Sand

Sample Depth (feet)	Sample Interval (feet)	Visual Description	Group Symbol	Blow Counts	PID (ppm)	Remarks
4	0-4	All brown fine sand.	SP	NA	NA	3.0 ft recovered
8	4-8	All same as above.	SP	NA	NA	3.0 ft recovered DTW @ ~ 6.0 feet bgs Boring Complete
12						
16						
20						
24						
28						
32						
36						
40						
44						
48						

East Coast Geoservices, LLC
P.O. Box 2806
Huntington Station, New York 11746
Phone: (631) 513-8595
www.info@eastcoastgeoservices.com

SOIL BORING LOG

BORING I.D. B-3	**PROJECT NO.** NPV# 17071	**PROJECT NAME** Wainscott Commercial Center		
LOGGED BY Eric Arnesen	**APPROVED BY** Eric Arnesen	**LOCATION** 30 Montauk Highway Wainscott, New York		
DRILLING CONTRACTOR East Coast Geoservices, LLC	**DRILLER** Jonathan McGinn			
DRILL BIT DIAMETER/TYPE 2.0 inch/Core Barrel	**BOREHOLE DIAMETER** 2.0 inches	**BORING LOCATION DESCRIPTION** Located in the northwest quadrant of the property.		
LAND SURFACE ELEVATION NA	**COORDINATES** NA	**DRILLING EQUIPMENT/METHOD** Power Probe 9100		**SAMPLING METHOD** Core Barrel
DEPTH OF BORING 8 feet	**DEPTH TO WATER** ~8.0 feet bgs	**START/FINISH DATE** 13-Oct-17		**BACKFILL** Mason Sand

Sample Depth (feet)	Sample Interval (feet)	Visual Description	Group Symbol	Blow Counts	PID (ppm)	Remarks
4	0-4	All brown fine sand, trace silt.	SP	NA	NA	2.0 ft recovered
8	4-8	Top 2.0 feet brown silty sand. Bottom 2.0 feet brown fine sand.	SM SP	NA	NA	3.0 ft recovered DTW @ ~ 8.0 feet bgs Boring Complete
12						
16						
20						
24						
28						
32						
36						
40						
44						
48						

East Coast Geoservices, LLC
P.O. Box 2806
Huntington Station, New York 11746
Phone: (631) 513-8595
www.info@eastcoastgeoservices.com

SOIL BORING LOG

BORING I.D. B-4	**PROJECT NO.** NPV# 17071	**PROJECT NAME** Wainscott Commercial Center		
LOGGED BY Eric Arnesen	**APPROVED BY** Eric Arnesen	**LOCATION** 30 Montauk Highway Wainscott, New York		
DRILLING CONTRACTOR East Coast Geoservices, LLC	**DRILLER** Jonathan McGinn			
DRILL BIT DIAMETER/TYPE 2.0 inch/Core Barrel	**BOREHOLE DIAMETER** 2.0 inches	**BORING LOCATION DESCRIPTION** Located in the northeast quadrant of the property.		
LAND SURFACE ELEVATION NA	**COORDINATES** NA	**DRILLING EQUIPMENT/METHOD** Power Probe 9100		**SAMPLING METHOD** Core Barrel
DEPTH OF BORING 8 feet	**DEPTH TO WATER** ~8.0 feet bgs	**START/FINISH DATE** 13-Oct-17		**BACKFILL** Mason Sand

Sample Depth (feet)	Sample Interval (feet)	Visual Description	Group Symbol	Blow Counts	PID (ppm)	Remarks
4	0-4	All brown fine sand.	SP	NA	NA	3.0 ft recovered
8	4-8	All same as above.	SP	NA	NA	4.0 ft recovered DTW @ ~ 8.0 feet bgs Boring Complete
12						
16						
20						
24						
28						
32						
36						
40						
44						
48						

APPENDIX D-2

ALPHA HYDROGEOLOGY INVESTIGATION

HYDROGEOLOGIC ASSESSMENT OF THE WAINSCOTT COMMERCIAL CENTER EAST HAMPTON, NEW YORK

Prepared for

Wainscott Commercial Center, LLC
P.O. Box 1259
Wainscott, New York 11975

November 2018

ALPHA GEOSCIENCE

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

HYDROGEOLOGIC ASSESSMENT OF THE WAINSCOTT COMMERCIAL CENTER EAST HAMPTON, NEW YORK

Prepared for

Wainscott Commercial Center, LLC
P.O. Box 1259
Wainscott, New York 11975

Prepared by

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

November 2018

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Table 1 Survey Elevations – September 14, 2018

Table 2 Ground Water Elevation Measurements - 2018

Table 3 2018 Laboratory Results

Table 4 Ground Water Elevation Measurements - 1999-2001

Table 5 1999 & 2000 Laboratory Results

FIGURES

Figure 1 Site Location Map

Figure 2 Combined WCC Monitoring Wells from 1999 and 2018 Investigations

Figure 3 Historic Wells with Water Table Elevation Contour Map from 12/16/1999

Figure 4 Historic Wells with Water Table Elevation Contour Map from 3/22/2000

Figure 5 Water Table Contour Map, 6/26/2018 Data

Figure 6 Water Table Contour Map, 9/20/2018 Data

Figure 7 Regional Water Table Map

Figure 8 PFAS Concentrations, 6/26/2018

Figure 9 PFOA and PFOS Concentrations, 6/26/2018

Figure 10 Historic Wells with Iron and Manganese Concentrations on 12/21/1999

Figure 11 Iron and Manganese Concentrations, 6/26/2018

APPENDICES

Appendix A: Geologic Logs, MW-1 through MW-7

Appendix B: Monitoring Well Completion Logs, MW-1 through MW-7

Appendix C: USGS Water Elevation Data for Georgica Pond

Appendix D: Topographic and Well Survey Map of Wainscott Commercial Center by Fox Surveying, September 14, 2018

Appendix E: NYSDEC and SCDHS Letters Regarding PFOA and PFOS in East Hampton

Appendix F: Table 13 from SCDHS Report dated January 22, 2016

Appendix G: Data Validation Summary

1.0 INTRODUCTION

This report presents the results of a hydrogeologic investigation of the Wainscott Commercial Center proposed by Wainscott Commercial Center, LLC in East Hampton, New York. The site was previously a sand mine that now occupies approximately 70 acres on the north side of New York Route 27 (Figure 1). The site is bordered by Wainscott Northwest Road on the west, Hedges Lane on the east, and the Long Island Rail Road on the north.

This investigation was conducted by Alpha Geological Services, D.P.C. (Alpha Geoscience, d.b.a.) (Alpha) at the request of Wainscott Commercial Center, LLC to establish current (predevelopment) conditions and to address potential environmental impacts from the proposed development of the site for multi-use commercial and industrial tenants. The two primary hydrogeologic features of local concern are the underlying water table aquifer, which is the source of potable water for the local community, most of whom are on private water supply wells[1], and the recreational surface water feature known as Georgica Pond (Figure 1).

The primary concerns for drinking water within the East Hampton community are for the contaminants: perfluorooctane sulfonate (PFOS); perfluorooctanic acid (PFOA); hexavalent chromium; and 1,4-dioxane. These contaminants are of concern due to their potential health effects if consumed.

Iron and manganese that occur above average Suffolk County ground water concentrations have also been detected in ground water in the County and have been identified as being indicative parameters related to a vegetative waste processing facility. There is no vegetative waste processing facility on the site. Iron and manganese also are not regulated as a hazardous waste; consequently, they are not as great a concern as the other mentioned contaminants.

The primary concern for Georgica Pond is the effects on this surface water feature by nitrogen, phosphorus, and bacteria from septic discharge to the water table and also from stormwater

[1] The town recently created the Wainscott Water District that incorporates the site and its surrounding community. The Suffolk County Water Authority (SCWA) is in the process of installing water mains throughout the newly created district, which will provide all home owners with the opportunity to connect to public water supplied by the SCWA that is treated for excess iron and manganese.

runoff (Lombardo Associates, Inc.; 2015). The nitrogen and phosphorus compounds can result in algal blooms and related degradation that impair the aesthetic quality of the water, create a contact recreation hazard, and damage the aquatic habitat.

The primary objectives of this investigation were to evaluate the elevation and flow direction of the water table beneath the site, assess ground water quality, estimate the rate of horizontal ground water flow across the site, and determine how the site water table relates to the area around the site and Georgica Pond. Secondary objectives are to provide data about the soil material at the site and the depth to water across the site to aid in site development. The methods to address the objective are provided herein.

2.0 METHODS

The investigation objectives were met by:

- Drilling seven borings, on June 6 – 7, 2018, around the perimeter of the site (MW-1 through MW-7) using a hollow-stem auger and driving a two-foot long split barrel sampler at five-foot intervals. The auger cuttings and split spoon samples were logged in the field by a geologist. The geologic logs are provided in Appendix A, and the hole locations are shown on Figure 2 along with ten pre-existing monitoring wells (OMW series wells).
- Installing monitoring wells in each of the seven soil borings drilled in 2018. The well installations were observed and documented by the field geologist, and those logs are provided in Appendix B. Each well was constructed by installing a two-inch diameter, 0.01-slot, 10-foot-long well screen to a sufficient depth so that the well screen straddled the water table. The wells were backfilled with sand around the screen and sealed above the screen with 0.5 to 1.0 feet of bentonite, followed by auger cuttings and the placement of a lockable steel cap.
- Surveying location, elevation of the ground surface and elevation of the top of the PVC casing for each well by Fox Land Surveying of West Hampton Beach, New York (Fox). The elevation data are provided on Table 1.

- Developing each new well using a Waterra pump and dedicated tubing. Development was conducted to remove fine sediment and establish an effective connection to the aquifer.
- Measuring water levels after each new well was installed and, again, on June 26, 2018 and September 20, 2018. These water levels are provided on Table 2 along with a conversion of each depth-to-water measurement to a water table elevation based on the Fox survey data. All water level measurements were made from the top of the PVC casings. Water levels were also measured in two pre-existing wells (MW-6A and MW-8). The construction details of these wells are unknown; however, the depth of MW-8 was measured at 31.13 feet from the top of the casing. Consequently, this well is considered representative of the water table.
- Measuring of the water surface elevation of Georgica Pond by the U.S. Geological Survey (USGS) on a continuous basis. The daily water level data measured for the past four months are provided in Appendix C and on Table 2. Alpha personnel also installed a staff gauge (SG-1) in a pool of water in the middle of the site in order to obtain the elevation of that water. The location of SG-1 is provided on Figure 2. The ground surface elevation at SG-1 was estimated from site topography provided by Fox. The Fox survey map is provided in Appendix D.
- Collecting ground water samples from wells MW-1 through MW-8 by Alpha on June 26 and 27, 2018. The samples were taken after purging three well volumes of water from each well. The purging and sampling were conducted using a new, clean bailer for each well. The samples were placed in sample jars supplied by Pace Analytical Services, LLC, placed in a cooler with ice, and transported by Alpha to the Pace Laboratory in Melville, New York.
- Having the ground water samples analyzed, by Pace Analytical Services, LLC of Melville, New York, for dissolved metals, hardness, fluoride, sulfate, chloride, alkalinity, nitrogen, nitrate, nitrite, total dissolved solids, and hexavalent chromium. Pace subcontracted analyses for per- and polyfluoroalkyl substances (PFAs) and 1,4-dioxane through Test America. The analytical results are provided on Table 3.

- Analyzing the ground water elevation and quality data to assess the direction and rate of ground water flow across the site, the relationship of site ground water to Georgica Pond and the community as a whole, and potential sources of some parameters identified in the ground water.
- Researching and reviewing published literature and other unpublished reports for the area and Suffolk County as a whole, as needed, to help in the understanding of the site hydrogeological conditions.
- Reviewing pre-existing ground water elevation and ground water quality data from an investigation of the site in 1999 through 2000. Those water level elevation data are provided on Table 4. The pre-existing water quality data are provided on Table 5.

3.0 RESULTS

3.1 Site Geology

The soils encountered at the site consist of fill composed of coarse to fine sand with some medium to fine gravel and pockets of silt near the surface at some locations. These sandy and gravelly fill materials sit on top of fine to coarse sands of the water table aquifer, which is identified as the "Upper Glacial Aquifer" (Smolensky et al.; 1989).

3.2 Site Hydrogeology

The water level elevation data collected from the OMW series wells in 1999 (Table 4) show that the ground water elevations were highest along the northwest edge of the site and lowest to the southeast. Ground water flows from higher elevations to lower elevations; consequently, the data show that the flow was from the northwest across the site to the southeast. This flow is illustrated on the ground water contour maps for measurements that were made on 12/16/1999 (Figure 3) and again on March 22, 2000 (Figure 4).

The water level measurements were made in the new site monitoring wells, and pre-existing well OMW-1/MW-8, by Alpha on June 26 and September 20, 2018. The water level measurements were converted to water table elevations and used to construct site water table contour maps representing conditions on those respective days (Figures 5 and 6). Both maps confirm the

previous interpretation that the water table slopes across the site from the northwest to the southeast. The only exception to the northwest to the southeast slope was at MW-1 on June 26 (Figure 5) when that water table elevation was higher at that well in the southwest corner than at any other site well. That high level in MW-1 on that date was due to localized aquifer recharge associated with ponded water at the land surface. The water level in MW-1 had returned to an elevation that was consistent with the overall slope of the water table of northwest to southeast as of the September measurements (Figure 6).

Figure 7 provides an expanded view showing the regional ground water flow pattern for the site and surrounding area that is based on the September 20, 2018 site water level measurements along with a USGS measurement of the Georgica Pond water surface elevation. This regional map shows that ground water flows from upgradient areas, such as the East Hampton Airport, and beyond, toward the southeast where the ground water discharges into Georgica Pond and, ultimately, the Atlantic Ocean. The solid lines on Figure 7 are based on actual data, and the dashed lines are inferred or projected based on the expected patterns of ground water flow. This pattern of flow across the site and toward the natural discharge area at Georgica Pond is consistent with a water table map for the area that was prepared by the USGS (Monti et al.; 2013).

3.3 Horizontal Ground Water Flow Velocity

Knowledge of the horizontal velocity of ground water flow is helpful in assessing changes in the distribution of contaminants through time. Although various metals and chemical contaminants in ground water may not move across the site at the same rate as the linear velocity of the ground water, knowledge of the ground water flow is an aid in assessing relative changes in the distribution of detected analytes when comparing water quality results spanning nearly two decades.

The basic equation for estimating horizontal ground water velocity in a sand aquifer like that at the site is:

$$v = -Ki/n$$

where: v = average velocity of ground water flow

K = hydraulic conductivity of the aquifer
i = hydraulic gradient
n = porosity of the aquifer

The hydraulic conductivity of the outwash sand portion of the upper glacial aquifer was determined by McClymonds and Franke (1972) to range from 2,000 to 3,000 gallons per day per foot squared (gpd/ft^2). Alpha selected the midpoint of the range and used 2,500 gpd/ft^2 or 334.8 ft/year in the flow equation.

The water gradient across the site was determined from the September 20, 2018 ground water contour map (Figure 6). The water table had a measured drop of 2.0 feet over a horizontal distance of approximately 2,075 feet. This yields a gradient of -9.6×10^{-4} ft/ft.

The porosity is assumed to be approximately 0.35. This is based on the assumption that the outwash sand is moderately sorted fine to coarse sand. Applying this value and the other values for K and i into the equation yields an estimated linear velocity of 335 feet per year across the site.

3.4 Ground Water Quality

The analytical results from the ground water samples obtained by Alpha from the site monitoring wells and the ground water sampling results from the earlier investigation are provided on Tables 3 and 5, respectively. These results are provided on the tables along with the various United States Environmental Protection Agency (USEPA) and New York State Standards. These standards include the Maximum Contaminant Levels enforced by the USEPA (MCL EPA), the Secondary Maximum Contaminant Levels suggested by the EPA (SMCL EPA), the New York State Department of Health enforced Part 5 drinking water standards (NYSDOH DWS), and the New York State fresh ground water standards (NY GA GW).

The historical results from 1999 and 2000 (Table 5) show that iron and manganese were above standards at all of the old well locations, except for OMW-6. Other critical elements and compounds; such as lead, nitrate, and ammonia; were either not detected or at levels that were within standards when tested in 1999/2000 (Table 5). The volatile organic compounds (VOCs) related to hydrocarbons, such as gasoline or oil; herbicides; and pesticides were not detected in

any of the OMW wells. Testing for these substances was not included in water quality analyses for samples collected in the new wells in 2018.

The 2018 water quality analyses (Table 3) were focused on selected metals, which included iron and manganese, along with hexavalent chromium (CR6), 1,4-dioxane, and PFAS. The overall results for the tested parameters show that the water quality is good and meets standards except for PFAS, iron, manganese, aluminum, and sodium. Per- and polyfluoroalkyl substances (PFAS) were detected in all of the sampled monitoring wells. The relative concentrations appear to be similar on both the upgradient and downgradient sides of the site. Iron and manganese were not detectable or were at low concentrations in most of the wells except for the three downgradient wells (MW-2, MW-7, and MW-8). The sodium and aluminum concentrations were slightly above the recommended levels, which are not enforced standards.

4.0 DISCUSSION OF RESULTS

4.1 Hydrogeology

The soil borings at the site (see geologic logs in Appendix A) indicate that the aquifer at the site is an unconfined sand aquifer. The significance of this aquifer being unconfined is that it receives recharge from direct precipitation to the land surface. The ground water contours show that this recharge both originates from precipitation at the site as well as from precipitation to the land surface upgradient (northwest) of the site. This aquifer recharge from direct precipitation moves by ground water flow from the northwest across the site to the southeast (Figures 3 through 7). The water level contours showing the high water table at MW-1 (southwest corner of the site in June 2018) are a good example of concentrated recharge related to water pooling at the land surface at that location (Figure 5). The regional water table contour map (Figure 7) shows that The East Hampton Airport is directly up the ground water flow gradient from the site; consequently, some of the recharge for the ground water crossing the site is coming from the airport area and further to the northwest of the airport.

Ground water flow from the site is directly toward Georgica Pond; consequently, Georgica Pond is the natural zone of discharge from ground water that both originates at and passes through the

site. Ground water flow beneath the site also passes beneath properties along Hedges Lane, the northern end of Stone Road, Fenwood Road, the eastern end of Merriwood Drive, and a short segment of NY-27 (Montauk Highway), where water supply wells likely exist within the water table aquifer.

Periodic pooling of surface water in the northern half of the site is due to low permeability fill at the surface. These isolated surface water pools are not representative of the water table. This is evidenced by the disparity in elevation between the water at SG-1 and the ground water elevation at that location (Figures 5 and 6).

4.2 Ground Water Quality

The ground water quality is very important to the health of Georgica Pond and also to the people who rely on the ground water as their potable water supply. The concerns for Georgica Pond are focused primarily on nutrient loading from fertilizers and septic systems. The concerns for human health derived from the use of water supply wells go beyond nutrient loading and include contaminants such as PFOA, PFOS, 1,4-dioxane and hexavalent chromium. These chemicals are toxic and linked to severe illnesses, such as cancer. There is also a concern for high iron and manganese, but these concerns are mostly due to aesthetic qualities such as poor taste and staining of household fixtures and clothing, if the water is not treated and filtered. These various analytes are discussed further, herein.

4.2.1 Per- and Polyfluoroalkyl Substances (PFAS)

The PFAS were detected in all eight of the monitoring wells sampled in 2018 (Table 5 and Figure 8). These detected PFAS included the following nine compounds that are listed on Table 3:

PFBS
PFBA
PFpS
PFpA
PFHxS
PFHxA
PFNA
PFOS
PFOA

All nine of these compounds were detected at each of the sampled wells. The three highest concentrations of all the compounds were PFHxS at 430 ppt and PFNA at 220 ppt, at MW-5, and also PFHpS at 440 ppt at MW-6. Both of these wells are on the upgradient side of the site (Figure 8). This supports an interpreted offsite source for these compounds.

Some of the concentrations of the PFAS (PFOA and PFOS) exceeded the EPA secondary contaminant level of 70 parts per trillion (ppt). The wells with concentrations of PFOS greater than 70 ppt occurred on both the upgradient and downgradient sides of the site relative to the direction of ground water flow. These results further indicate that PFAS are originating offsite to the northwest and traveling through the site toward the southeast within ground water.

The New York State Department of Environmental Conservation (NYSDEC) is investigating PFAS in the Town of East Hampton (Town) in the vicinity of the East Hampton Airport (see documents in Appendix E). It is Alpha's understanding from anecdotal reports in a local newspaper (The East Hampton Star) that private wells are being tested by the Suffolk County Department of Health Services (SCDHS) within the Town in the area south of the airport. The WCC site lies within that SCDHS investigation area. Alpha did not have access to the SCDHS testing results with the exception of a well at 65 Main Street in Wainscott (Appendix E). That well contained 190 nanograms per liter (ng/L) of PFOA and 2 ng/L of PFOS. One ng/L is approximately equivalent to one part per one trillion parts (ppt). The 65 Main Street location is southwest of the WCC site; consequently, the PFAS detected at the well would not have passed through the site to reach that location.

There is also an anecdotal report in a Southampton Press article dated March 22, 2018 that a fire training exercise was conducted at the site in June 2000. That training exercise may have involved the use of a fire suppressant foam. The soil at that location, which is near MW-6 and MW-6A, will be sampled during a proposed soil investigation.

4.2.2 1,4-dioxane

The chemical 1,4-dioxane is used as a processing chemical in a variety of manufacturing applications that include, but are not limited to, pharmaceuticals, plastics, rubber, pesticides,

deodorants, cement, and adhesives. It is also used as a solvent in some manufacturing processes (USEPA, 2017). It will dissolve in water and enter the water table where it will move in the direction of ground water flow. The chemical was detected at trace levels in all the site monitoring wells; however, it is far below the New York State drinking water standard of 50 µg/L and appears to be a constituent of the regional water table that is passing through the site.

4.2.3 Hexavalent Chromium (CR6)

Hexavalent chromium (CR6) is another potential contaminant of interest that was selected for analysis. It is a potential contaminant that both occurs in the natural environment and is generated during the manufacturing of cement, but not the mixing of cement for concrete and other cement-based products. Hexavalent chromium was not detected in any of the ground water samples.

4.2.4 Iron and Manganese

The New York State drinking water standard of 0.3 mg/L was exceeded at five locations for iron and four locations for manganese when sampled in 1999 (Figure 10). The values for these metals were highest on the upgradient edges and in the middle of the site. This distribution indicates that at least some of the elevated levels are coming from offsite sources.

The 2018 results (Figure 11) revealed that both iron and manganese were detected at levels exceeding their respective New York State drinking water standards in two of the downgradient wells (MW-2 and MW-7) for iron and three of the downgradient wells (MW-2, MW-7, and MW-8) for manganese. This distribution is much different from that indicated in the 1999 data represented on Figure 10. For example, well MW-5; which was installed in 2018 very close to the OMW-5 location, had no detected iron and 0.016 mg/L of manganese in 2018 as compared to 0.52 mg/L and 1.0 mg/L of iron and manganese, respectively, in 1999. The overall pattern also shifted from the relatively high iron and manganese on the upgradient side to the higher values all being along the downgradient side by 2018. This change may be a function of the rapid horizontal flow of ground water across the site. The estimated ground water flow rate of 335 ft/yr would enable ground water entering the northwest corner of the site to exit the southeast corner in approximately twelve years. Although the dissolved iron and manganese may not

move as quickly as ground water, it is not surprising to see significant differences in metal concentrations at particular locations through time.

It is also not unusual to encounter high dissolved iron and manganese in ground water on Long Island. The SCDHS presented a table (Table 13 in SCDHS, 2016) of the average, maximum, and range of iron and manganese in private wells in Suffolk County (see Table 13 from the SCDHS report in Appendix F). The data on SCDHS Table 13 shows the maximum iron concentration at 33 ppm with an average of 0.9 ppm in those wells where detections occurred. The site detections for iron exhibited a maximum of 5.38 mg/L (5.38 ppm) (1.0 mg/L is approximately equal to 1.0 ppm) and an average of 1.9 mg/L (1.9 ppm). These site detections are similar to the SCDHS findings for the County as a whole.

The SCDHS results for manganese (see Table 13 in Appendix F) exhibited a maximum of 7,000 ppb (1.0 ppb is approximately equal to 1.0 µg/L) and an average of 112 ppb for those wells with detections. The site wells exhibited a maximum of 9,790 µg/L (9,790 ppb) and an average of 1,467 µg/L (1,467 ppb) for the detections in the combined 1999 and 2018 data. These values are higher than the average and maximum concentrations detected in wells across the County.

Iron and manganese are not as great a concern as the other previously discussed chemicals. Iron and manganese are regulated as nuisance chemicals in drinking water due to the staining of household fixtures and the metallic taste in drinking water (Lemley et al., 2005); however, there may be some health effects at long-term higher concentrations in drinking water (USEPA, 2004). The concentrations of these metals can be reduced using chlorine followed by filtration, as is done by the Suffolk County Water Authority in water supplied from its public wells.

4.2.5 Nitrogen

Nitrogen is an important chemical for the Wainscott area due to its potential effects on Georgica Pond (Lombardo Associates, Inc.; 2015). Nitrogen compounds are derived from fertilizers and septic discharge to the water table. Nitrate and Nitrogen as Nitrite were well below the drinking water standards of 10 mg/L in all of the ground water samples collected from the site wells. These results indicate that the site is not contributing to the degradation of Georgica Pond by nutrient loading of the water table.

4.2.6 Validation of Water Quality Data

The water quality analyses for the samples collected in 2018 were validated by Alpha's chemist to assess the data usability. The results of that review are provided in Appendix G. All of the laboratory analytical results were found to be usable, with some of the data being noted to have a higher degree of uncertainty. These are explained in the Data Usability Summary Report (Appendix G).

5.0 CONCLUSIONS

A hydrogeologic investigation of the proposed Wainscott Commercial Center was conducted by Alpha for Wainscott Commercial Center, LLC. The objectives were to describe the soil material at the site, determine the depth to the water beneath the site, assess the relationship of the water table beneath the site to Georgica Pond and to the surrounding community that relies on ground water as a potable water supply, to evaluate the quality of the ground water, and to assess the significance of the water quality as it relates to the site and surrounding area. The investigation was conducted by reviewing data collected from seven wells installed for an investigation in 1999/2000, installing seven new monitoring wells in 2018, measuring water levels in these seven new wells and two existing wells, reviewing water quality data collected from seven old wells in 1999, collecting and analyzing ground water samples from seven new wells and one of the old wells in 2018, and analyzing the data. The following are the key conclusions from this investigation:

- The aquifer at the site is an unconfined water table aquifer consisting of fine to coarse sand fill over fine to coarse sand of the "Upper Glacial Aquifer."
- The water table elevation slopes across the site from northwest to southeast.
- Ground water flow is from the higher ground water elevation in the northwest toward the lower ground water elevation in the southeast.
- The horizontal ground water flow rate is approximately 335 ft/yr across the site.
- The unconfined water table at the site is recharged by direct precipitation and also by ground water flow from recharge areas that are located to the northwest of the site.

- Georgica Pond is the natural discharge area for the water table that is flowing beneath the site.
- The ground water quality at the site is generally good; however, elevated levels of PFOA, PFOS, iron and manganese were detected in some of the ground water samples.
- The PFOA and PFOS concentrations exceed EPA Guideline values of 70 ppt at both upgradient and downgradient locations; consequently, it is interpreted that the elevated PFOA and PFOS values are coming from upgradient sources and passing beneath the site.
- Elevated levels of iron and manganese were detected throughout the site with the highest values on the upgradient side and in the center of the site in 1999.
- The elevated levels of iron and manganese occurred in the downgradient wells in 2018.
- The elevated levels for iron are similar to high background levels of Fe identified in private wells elsewhere in the County by the Suffolk County Department of Health Services (SCDHS); but the manganese appears to be higher than the average manganese concentrations found by the SCDHS.
- The distribution of high iron and manganese in 1999 indicates that offsite sources are likely.
- The high concentration of iron and manganese on the downgradient side in 2018 could be a function of the high horizontal flow rates in the water table.
- Other chemicals, such as nitrates, 1,4-dioxane, and hexavalent chromium, are well within EPA and New York State standards.
- There is no indication of the presence of petroleum related VOC contamination in ground water at the site based on the 1999 data.
- All of the analytical water quality data from the 2018 sampling were determined to be usable.
- The ground water flowing beneath the site and discharging to Georgica Pond will not have a detrimental impact to the nutrient loading in the pond.

- The ground water quality data generated from this investigation provide a database of current background conditions that can be used to assess any unexpected changes in the measured parameters after the site is developed.
- There is no indication that there is a source of ground water contamination at the site that is impacting local, downgradient water supply wells now, or will in the future, if this site is further developed.

6.0 REFERENCES

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TABLES

Table 1
Survey Elevations - September 14, 2018
Wainscott Commercial Center
Suffolk County, New York

Well	Elevations (ft rmsl)	
	TOC	Ground Surface
MW-1	14.48	12.09
MW-2	18.94	16.08
MW-3	19.16	16.35
MW-4	18.65	15.63
MW-5	22.36	19.35
MW-6	18.98	16.07
MW-6A	18.06	15.48
MW-7	18.49	15.28
MW-8	23.27	20.80

Notes: Survey was performed by Fox Land Surveying
of Westhampton Beach, NY
Elevations referenced to NAV Datum (MSL 1988).
TOC = Top of PVC Casing (Measuring Point) Elevation

Table 2
Ground Water Elevation Measurements - 2018
Wainscott Commercial Center
Suffolk County, New York

Well	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-6A		MW-7		MW-8		SG-1*		Georgica Pond USGS Monitoring Station
TOC Elevation (ft rmsl)	14.48		18.94		19.16		18.65		22.36		18.98		18.06		18.49		23.27		20.31		
DATE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	SWE	WTE
6/7 - 8/2018	6.02	8.46	9.33	9.61	8.54	10.62	8.74	9.91	11.57	10.79	8.48	10.50	7.58	10.48	8.58	9.91	15.24	8.03	2.19	18.12	5.88 / 5.85
6/26/2018	2.31	12.17	9.53	9.41	8.69	10.47	8.86	9.79	11.71	10.65	8.65	10.33	7.75	10.31	8.76	9.73	15.37	7.90	2.31	18.00	5.81
9/20/2018	6.88	7.60	10.33	8.61	9.80	9.36	9.89	8.76	12.79	9.57	9.70	9.28	8.76	9.30	9.71	8.78	15.87	7.40	2.27	18.04	5.75

Notes: Survey was performed by Fox Land Surveying of Westhampton Beach, NY

Elevations referenced to NAV Datum (MSL 1988).

TOC = Top of PVC Casing (Measuring Point) Elevation

DTW = Depth to Ground Water from TOC (feet)

WTE = Water Table Elevation (ft rmsl)

SWE = Surface Water Elevation (ft rmsl)

* Staff Gauge , measurements are from top of wooden stake; stake was broken as of 9/20/18, taped back together.

Elevation of the top of the Staff Gauge is estimated from the Topographic Survey Map

Table 3
2018 Laboratory Results
Wainscott Commercial Center
Suffolk County, NY

Well					MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
Collection Date					6/27/2018	6/27/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018
Analyte/ Parameter	**MCL EPA**	**SMCL EPA**	**NY DoH DWS***	**NY GA GW**								
Dissolved Metals	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Aluminum	NS	0.05 to 0.2	NS	NS	0.354	ND	ND	ND	ND	ND	ND	ND
Arsenic	0.01		0.01	0.025	ND	ND	ND	ND	ND	ND	ND	ND
Barium	2.0		2.0	1.0	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	NS	NS	NS	NS	63	20.1	16.9	12.6	16.8	6.43	9.66	80.2
Chromium	0.1 (total)		0.1	0.05	0.0292	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium				0.05	ND	ND	ND	ND	ND	ND	ND	ND
Cobalt	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND
Copper	1.3	1.0	NS	0.2	ND	ND	ND	ND	ND	ND	ND	ND
Iron	NS	0.3	0.3	0.5 (total)	ND	2.22	0.0661	ND	ND	ND	5.38	ND
Manganese	NS	0.05	0.3		ND	1.54	0.0196	0.0226	0.0163	0.0337	0.496	9.79
Magnesium	NS	NS	NS	NS	3.63	4.69	4.54	3.00	4.55	2.04	2.40	11.4
Molybdenum	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	NS	NS	NS	0.1	ND	ND	ND	ND	ND	ND	ND	ND
Potassium	NS	NS	NS	NS	22.1	ND	ND	ND	ND	ND	ND	12.6
Sodium	NS	NS	No limit	20	18	6.87	19.4	26.8	54.2	10.5	ND	19.5
Strontium	NS	NS	NS	NS	0.703	0.0724	0.0550	0.0541	0.0691	ND	ND	0.467
Titanium	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	NS	5	5	NS	ND	ND	ND	ND	ND	ND	ND	ND
Non Metals	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Sulfate	NS	250	250	250	41.2	22	11.1	11.9	14.4	10.5	ND	26.7
Nitrate as N	10		10	10	4.6	0.66	3.9	0.68	3.7	1.4	0.13	1
Nitrate-Nitrite (as N)	NS	NS	10	10	4.7	0.66	3.9	0.68	3.7	1.4	0.13	1
Nitrite as N	1		1	0	ND	ND	ND	ND	ND	ND	ND	ND
Chloride	NS	250	250	250	20.6	7.4	38.7	55.6	86.2	16.4	4.1	35.6

Table 3
2018 Laboratory Results
Wainscott Commercial Center
Suffolk County, NY

Well					MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
Collection Date					6/27/2018	6/27/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018
Analyte/ Parameter	**MCL EPA**	**SMCL EPA**	**NY DoH DWS***	**NY GA GW**								
Other												
Total Dissolved Solids (mg/L)	NS	NS	NS	NS	208	100	70	78	206	58	ND	314
Apparent Color/pH (units)	NS	NS	NS	NS	250/7.0	62.5/6.0	1000/6.0	250/6.0	250/6.5	250/6.0	250/6.0	167/7.0
Corrosivity (pH/Temp (°C))	NS	NS	NS	NS	8.6/25.9	6.1/25.9	5.9/25.7	5.9/25.6	5.8/25.8	5.6/25.8	5.8/25.8	6.3/25.8
Perfluoros /organics *												
1,4-dioxane (µg/L)	NS	NS	<50	NS	0.20	0.21	1.0	0.21	1.0	0.20	0.22	0.21
PFBS (ng/L)	NS	NS	<50000	NS	11	5.7	1.9	17	11	4.9	14	4.6
PFBA (ng/L)	NS	NS	<50000	NS	4	21	0.96	1.3	3.8	23	9.1	91
PFHpS (ng/L)	NS	NS	<50000	NS	2.3	NT	2.4	4.9	19	440	6.6	NT
PFHpA (ng/L)	NS	NS	<50000	NS	3.8	37	0.61	0.92	4.8	88	7.5	46
PFHxS (ng/L)	NS	NS	<50000	NS	86	17	26	120	430	23	170	55
PFHxA (ng/L)	NS	NS	<50000	NS	12	39	2.3	2.7	23	52	14	73
PFNA (ng/L)	NS	NS	<50000	NS	2.3	73	0.4	1.4	220	140	3	18
PFOS (ng/L)	NS	70	<50000	NS	72	69	140	120	23	14	170	150
PFOA (ng/L)	NS	70	<50000	NS	11	48	4.4	4.4	1.5	32	21	110
PFOS +PFOA (ng/L)	NS	<70	<50000	NS	83	117	144.4	124.4	24.5	46	191	260

Notes:

* NYSDOH set generic MCL of 50,000 ppt for any chemical classified as an unspecified organic contaminant under NYCRR Title 10, Part 5, Subpart 5-1

mg/L = milligram per liter, ≈ parts per million (ppm)

ng/L = nanogram per liter ≈ parts per trillion (ppt)

MCL EPA = maximum contaminant levels (MCL) **enforced** by the United States Environmental Protection Agency

SMCL EPA = secondary maximum contaminant levels, **suggested** by the United States Environmental Protection Agency

NY DOH DWS = New York State MCL standards from the Department of Health, Part 5 (**enforced**)

NY GA GW = New York State fresh groundwater standards (GA) (6 NYCRR Part 703, under revision)

NS = No Standard ND = Not Detected NT = Not Tested

Red contaminant above the enforced MCL from the EPA or NYS DoH

Yellow contaminant above the recommended SMCL from the EPA or the fresh groundwater standards from NYS

Table 4
Ground Water Elevation Measurements - 1999-2001
Wainscott Commercial Center
Suffolk County, New York

Well *	Water Table Elevations (ft rmsl)						
	OMW1 / MW-8	OMW2	OMW4 / MW-6A	OMW5	OMW6	OMW7	OMW8
7/7/1999	6.76	7.19	9.80	10.32	8.82	8.18	8.93
9/15/1999	7.11	8.17	9.54	10.00	8.75	8.28	8.88
12/16/1999	8.33	8.17	9.52	9.94	8.86	8.45	8.85
2/23/2000	7.71	9.05	9.62	10.00	9.08	8.70	9.10
3/8/2000	7.56	9.02	8.90	9.98	9.09	8.69	9.08
3/22/2000	7.05	9.12	9.84	10.17	9.14	8.57	9.19
4/5/2000	6.98	-	10.01	10.25	9.20	8.47	9.03
6/2/2000	7.21	-	9.97	10.30	9.12	8.58	9.13
7/10/2000	7.26	-	9.87	10.60	9.27	8.68	9.29
8/20/2000	8.51	-	9.99	10.60	9.22	8.78	9.43
10/20/2000	-	-	9.70	10.32	9.14	8.54	9.13
12/9/2000	-	-	-	9.55	8.52	8.48	8.58
1/12/2001	-	-	-	9.50	8.72	7.98	8.83

* OMW = Old Monitoring Well installed in 1999. Most of the wells installed in 1999 have been lost with only OMW1/MW-8 and OMW4/MW-6A still accessible and renamed.

Table 5
1999 & 2000 Laboratory Results
Wainscott Commercial Center
Suffolk County, NY

Well						OMW1	OMW2	OMW4	OMW5	OMW6	OMW7		OMW8
Collection Date						12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	1/17/2000	12/21/1999
Analyte/ Parameter	**MCL EPA**	**SMCL EPA**	**SCDHS Limits**	**NY DoH DWS***	**NY GA GW**								
Dissolved Metals	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Copper	1.3	1.0	1.0	NS	0.2	0.01	ND	0.01	ND	ND	ND	-	ND
Iron	NS	0.3	0.30 each;	0.3	0.5 (total)	0.34	0.16	0.45	0.52	0.15	7.41	-	2.84
Manganese	NS	0.05	0.50 total	0.3		0.03	0.39	0.19	1.00	0.13	4.79	-	2.09
Lead	<0.015	NS	0.0	0.0	0.0	ND	ND	0.004	0.001	ND	0.008	-	ND
Zinc	NS	5	5.0	5.0	NS	ND	ND	ND	ND	ND	0.01	-	ND
Non Metals	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Ammonia	NS	NS	NS		20.0	ND	ND	ND	ND	ND	0.51	-	1.12
Nitrate as N	10.0	NS	10.0	10.0	10.0	3.98	1.63	2.37	2.31	1.01	0.17	-	0.76
Surfactant (MBAS)	NS	0.5	0.5		0.1	ND	ND	ND	ND	ND	ND	-	ND
Chloride	NS	250	250.0	250.0	250.0	9.99	4.65	9.20	38.4	12.7	6.57	-	6.54
Other													
pH	NS	6.5-8.5	NS	NS	NS	6.1	6.5	5.3	5.2	5.7	6.4	-	6.8
Specific Conductance (μmhos/cm	NS	NS	NS	NS	NS	528	83.4	172	253	226	860	-	391
Total Petroleum Hydrocarbons	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	2.25	-	ND
Total Coliform (mpn/100ml)	less than 5%	NS	<1.1	NS	NS	<2	<2	300	2	2	27	-	23
E. coli (mpn/100ml)	less than 5%	NS	<1.1	NS	NS	<2	<2	<2	<2	<2	<2	-	<2
Volatile Organics (μg/L)													
Benzene	5.0	NS	5.0	5.0	1.0	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.0	NS	50.0	5.0	NS	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	0.0	NS	50.0	NS (Report as group)	NS	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	NS	NS	50.0	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70.0	NS	50.0	NS (Report as group)	7.0	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NS	NS	5.0	5.0	NS	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND

Table 5
1999 & 2000 Laboratory Results
Wainscott Commercial Center
Suffolk County, NY

Well						OMW1	OMW2	OMW4	OMW5	OMW6	OMW7		OMW8
Collection Date						12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	1/17/2000	12/21/1999
Analyte/ Parameter	**MCL EPA**	**SMCL EPA**	**SCDHS Limits**	**NY DoH DWS***	**NY GA GW**								
4-Chlorotoluene	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	NS	NS	5.0	5.0	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	NS	NS	5.0	5.0	3.0	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	NS	NS	5.0	5.0	3.0	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	NS	NS	5.0	5.0	3.0	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5.0	NS	5.0	5.0	0.6	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	7.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	70.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5.0	NS	5.0	5.0	1.0	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	NS	NS	5.0	5.0	NS	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	NS	5.0	5.0	0.0	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NS	NS	5.0	5.0	0.0	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	50.0	NS	5.0	5.0	NS	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
p-Isoproyltoluene	NS	NS	5.0	5.0	NS	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether	NS	NS	50.0	10.0	NS	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100.0	NS	5.0	5.0	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	80.0	NS	100.0		NS	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	70.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5.0	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND

Table 5
1999 & 2000 Laboratory Results
Wainscott Commercial Center
Suffolk County, NY

Well						OMW1	OMW2	OMW4	OMW5	OMW6	OMW7		OMW8
Collection Date						12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	1/17/2000	12/21/1999
Analyte/ Parameter	**MCL EPA**	**SMCL EPA**	**SCDHS Limits**	**NY DoH DWS***	**NY GA GW**								
1,2,3-Trichloropropane	NS	NS	5.0	5.0	0.4	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	NS	NS	5.0	5.0	NS	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	NS	NS	5.0	5.0	NS	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	NS	NS	2.0	2.0	2.0	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene		NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
m-Xylene	total: 10	NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
p-Xylene		NS	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organics (µg/L)													
Acenaphthene	NS	NS	NS	NS	20.0	-	-	-	-	-	-	ND	-
Acenaphthylene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Anthracene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Benzidene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Benzo(a)anthracene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Benzo(b)fluoranthene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Benzo(k)fluoranthene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Benzo(a)pyrene	0.2	NS	NS	0.2	ND	-	-	-	-	-	-	ND	-
Benzo(g,h,i)perylene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Butylbenzylphthalate	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Bis(2-chloroethyl)ether	NS	NS	NS	NS	1.0	-	-	-	-	-	-	ND	-
Bis(2-chloroethoxy)methane	NS	NS	NS	NS	5.0	-	-	-	-	-	-	ND	-
Bis(2-ethylhexyl)phthalate	NS	NS	NS	NS	0.6	-	-	-	-	-	-	ND	-
Bis(2-chloroisopropyl)ether	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
4-Bromophenyl phenyl ether	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
4-Chloro-3-methyl phenol	NS	NS	NS	NS	Sum all phenols <1	-	-	-	-	-	-	ND	-
2-Chloronaphthalene	NS	NS	NS	NS	10.0	-	-	-	-	-	-	ND	-
2-Chlorophenol	NS	NS	NS	NS	Sum all phenols <1	-	-	-	-	-	-	ND	-
4-Chlorophenyl phenyl ether	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Chrysene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Dibenzo(a,h)anthracene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Di-n-butylphthalate	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
1,3-Dichlorobenzene	NS	NS	NS	5.0	3.0	-	-	-	-	-	-	ND	-
1,2-Dichlorobenzene	NS	NS	NS	5.0	3.0	-	-	-	-	-	-	ND	-
1,4-Dichlorobenzene	NS	NS	NS	5.0	3.0	-	-	-	-	-	-	ND	-
3,3'-Dichlorobenzidine	NS	NS	NS	NS	5.0	-	-	-	-	-	-	ND	-
2,4-Dichlorophenol	NS	NS	NS	NS	Sum all phenols <1	-	-	-	-	-	-	ND	-

Table 5
1999 & 2000 Laboratory Results
Wainscott Commercial Center
Suffolk County, NY

Well						OMW1	OMW2	OMW4	OMW5	OMW6	OMW7		OMW8
Collection Date						12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	1/17/2000	12/21/1999
Analyte/ Parameter	**MCL EPA**	**SMCL EPA**	**SCDHS Limits**	**NY DoH DWS***	**NY GA GW**								
Diethylphthalate	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
2,4-Dimethylphenol	NS	NS	NS	NS	Sum all phenols <1	-	-	-	-	-	-	ND	-
Dimethylphthalate	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
2,4-Dinitrophenol	NS	NS	NS	5.0	Sum all phenols <1	-	-	-	-	-	-	ND	-
2,4-Dinitrotoluene	NS	NS	NS	5.0	5.0	-	-	-	-	-	-	ND	-
2,6-Dinitrotoluene	NS	NS	NS	5.0	5.0	-	-	-	-	-	-	ND	-
Di-n-octylphthalate	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Fluoranthene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Fluorene	NS	NS	NS	2200.0	NS	-	-	-	-	-	-	ND	-
Hexachlorobenzene	1	NS	NS	1.0	0.0	-	-	-	-	-	-	ND	-
Hexachlorobutadiene	NS	NS	NS	5.0	0.1	-	-	-	-	-	-	ND	-
Hexachlorocyclopentadiene	50	NS	NS	NS	5.0	-	-	-	-	-	-	ND	-
Hexachloroethane	NS	NS	NS	NS	5.0	-	-	-	-	-	-	ND	-
Indeno(1,2,3-cd)pyrene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Isophorone	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
2-Methyl-4,6-dinitrophenol	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Naphthalene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Nitrobenzene	NS	NS	NS	NS	0.4	-	-	-	-	-	-	ND	-
2-Nitrophenol	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
4-Nitrophenol	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
n-Nitrosodimethylamine	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
n-Nitrosodiphenylamine	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
n-Nitrosodi-N-propylamine	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Pentachlorophenol	1	NS	NS	1.0	Sum all phenols <1	-	-	-	-	-	-	ND	-
Phenanthrene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
Phenol	NS	NS	NS	NS	Sum all phenols <1	-	-	-	-	-	-	ND	-
Pyrene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
2,3,4,6-Tetrachlorophenol	NS	NS	NS	NS	Sum all phenols <1	-	-	-	-	-	-	ND	-
1,2,4-Trichlorobenzene	70	NS	NS	5.0	NS	-	-	-	-	-	-	ND	-
2,4,6-Trichlorophenol	NS	NS	NS	NS	5.0	-	-	-	-	-	-	ND	-
2,4,5-TrichlorophenolPyridine	NS	NS	NS	NS	5.0	-	-	-	-	-	-	ND	-
Benzyl alcohol	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
2-Methylphenol (o-cresol)	NS	NS	NS	NS	Sum all phenols <1	-	-	-	-	-	-	ND	-
4-Methylphenol (p-cresol)	NS	NS	NS	NS	Sum all phenols <1	-	-	-	-	-	-	ND	-
Benzoic acid	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-
2-Methylnaphthalene	NS	NS	NS	NS	NS	-	-	-	-	-	-	ND	-

Table 5
1999 & 2000 Laboratory Results
Wainscott Commercial Center
Suffolk County, NY

Well						OMW1	OMW2	OMW4	OMW5	OMW6	OMW7		OMW8
Collection Date						12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	1/17/2000	12/21/1999
Analyte/ Parameter	**MCL EPA**	**SMCL EPA**	**SCDHS Limits**	**NY DoH DWS***	**NY GA GW**								
Chlorinated Herbicides (μg/L)													
2,4-D	70	NS	NS	50.0	NS	-	-	ND	-	-	-	-	-
Dalapon	200	NS	NS	NS	50.0	-	-	ND	-	-	-	-	-
2,4-DB	NS	NS	NS	NS	NS	-	-	ND	-	-	-	-	-
Dicamba	NS	NS	NS	NS	0.4	-	-	ND	-	-	-	-	-
Dichlorprop	NS	NS	NS	NS	NS	-	-	ND	-	-	-	-	-
Dinoseb	7	NS	NS	7.0	NS	-	-	ND	-	-	-	-	-
MCPA	NS	NS	NS	NS	NS	-	-	ND	-	-	-	-	-
MCPP	NS	NS	NS	NS	NS	-	-	ND	-	-	-	-	-
2,4,5-T	NS	NS	NS	NS	NS	-	-	ND	-	-	-	-	-
2,4,5-TP (Silvex)	50	NS	NS	10.0	NS	-	-	ND	-	-	-	-	-
Organophosphorus Pesticides (μg/L)													
Azinophos methyl	NS	NS	NS	NS	NS	-	-	ND	-	-	-	-	-
Demeton	NS	NS	NS	NS	NA	-	-	ND	-	-	-	-	-
Diazinon	NS	NS	NS	NS	0.7	-	-	ND	-	-	-	-	-
Disulfoton	NS	NS	NS	NS	ND	-	-	ND	-	-	-	-	-
Malathion	NS	NS	NS	NS	7.0	-	-	ND	-	-	-	-	-
Parathion methyl	NS	NS	NS	NS	Sum <1.5	-	-	ND	-	-	-	-	-

Note: * NYSDOH set generic MCL of 50,000 ppt for any chemical classified as an unspecified organic contaminant under NYCRR Title 10, Part 5, Subpart 5-1

mg/L = milligram per liter, ≈ parts per million (ppm) ng/L = nanogram per liter ≈ parts per trillion (ppt) mpn/100ml = most probable number per 100 milliliters

MCL EPA = maximum contaminant levels (MCL) **enforced** by the United States Environmental Protection Agency

SMCL EPA = secondary maximum contaminant levels, **suggested** by the United States Environmental Protection Agency

NY DOH DWS = New York State MCL standards from the Department of Health, Part 5 (**enforced**)

NY GA GW = New York State fresh groundwater standards (GA) (6 NYCRR Part 703, under revision)

NS = No Standard ND = Not Detected - = Not Analyzed / No Information

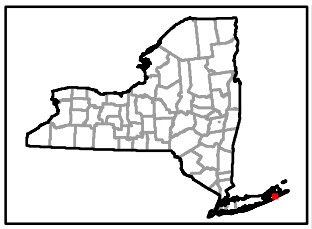
Red contaminant above the enforced MCL from the EPA or NYS DoH

FIGURES

LEGEND

Site Boundary (approx.)

Source:
-Basemap: Google Earth Imagery, October 1, 2017, accessed September 25, 2018

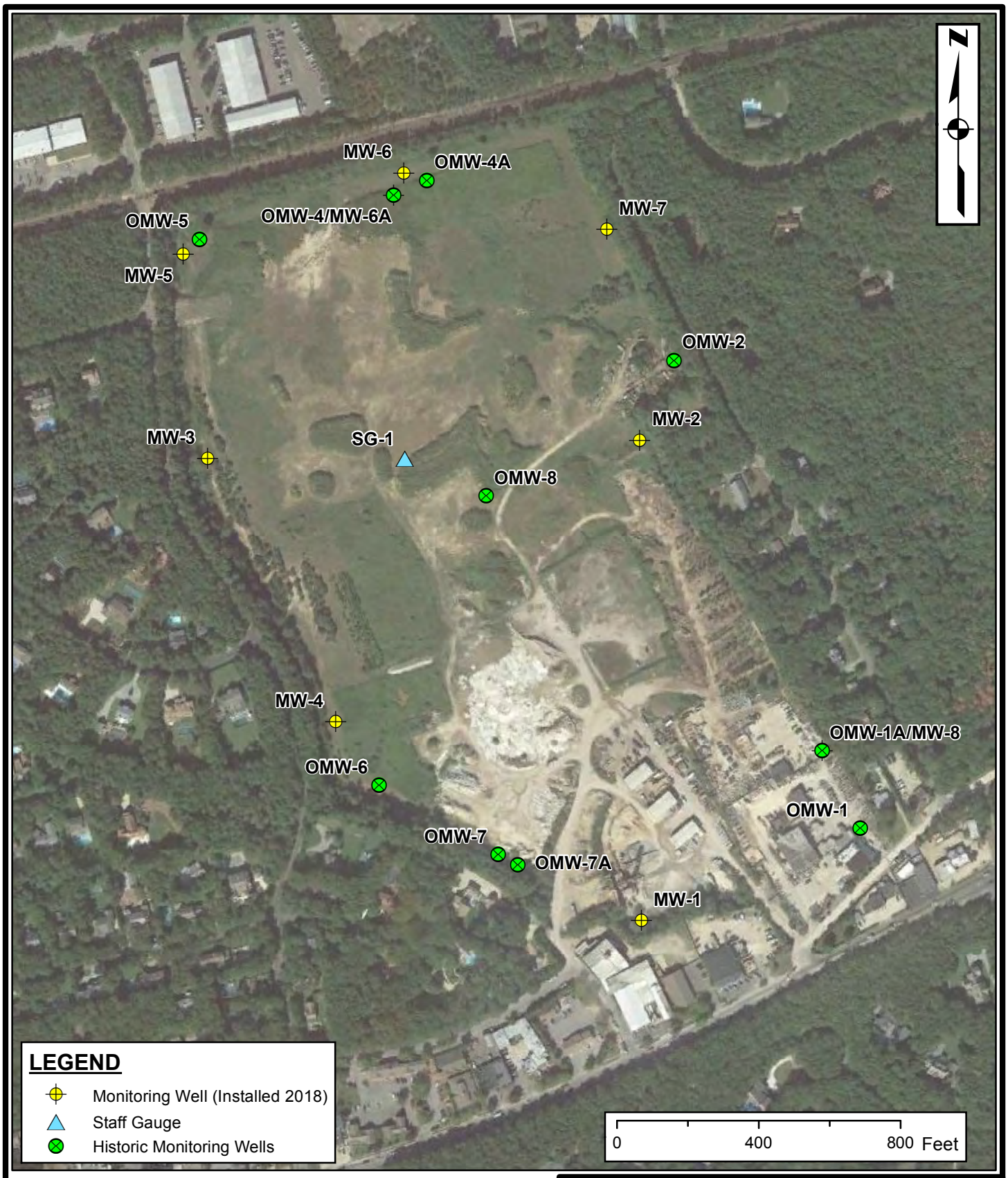


ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 1
Site Location Map

Wainscott Commerical Center
East Hampton, Suffolk County, New York

Path: Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\Site_Location_Map_new.mxd
Date Saved: 11/9/2018 11:55:58 AM



Notes:
-Basemap: Google Earth Imagery October 1, 2017, accessed September 25, 2018
-Monitoring wells (OMW and MW) located approximately using map byFox Land Surveying, September 24, 2001

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 2
Combined WCC Monitoring Wells from 1999 and 2018 Investigations

Wainscott Commerical Center
East Hampton, Suffolk County, New York

Path: Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\Fig2_combined_WCC_MW_1999-2000.mxd
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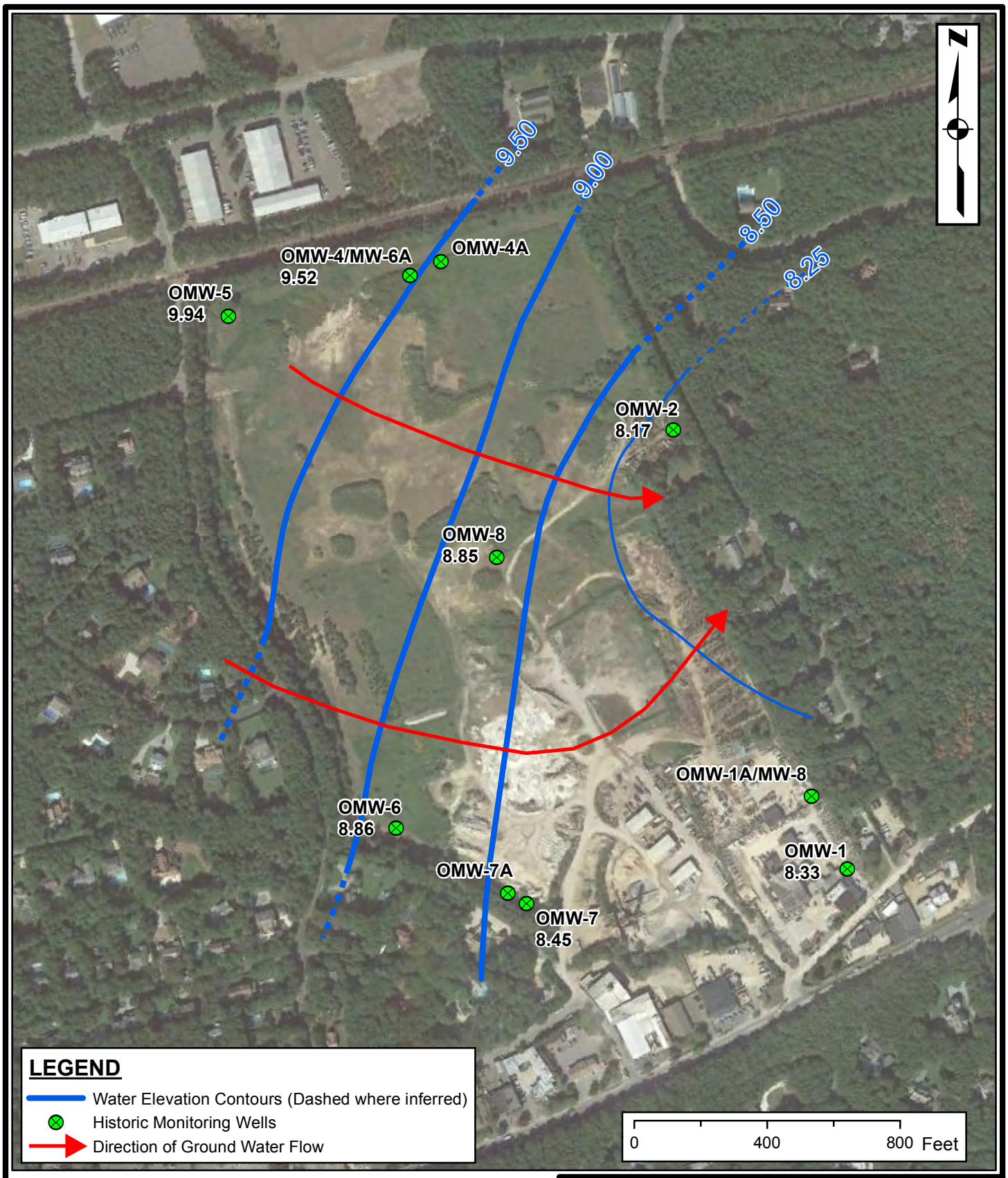

Notes:
-Basemap: Google Earth Imagery October 1, 2017, accessed September 25, 2018
-Old Monitoring wells (OMW) located approximately using map by Fox Land Surveying, September 24, 2001
-Water Table Measurements taken 12/16/1999

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 3
Historic Wells
With Water Table Elevation
Contour Map
from 12/16/1999
Wainscott Commerical Center
East Hampton, Suffolk County, New York

Path: Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\GWC_WTE_historic_wells_12_16_1999.mxd
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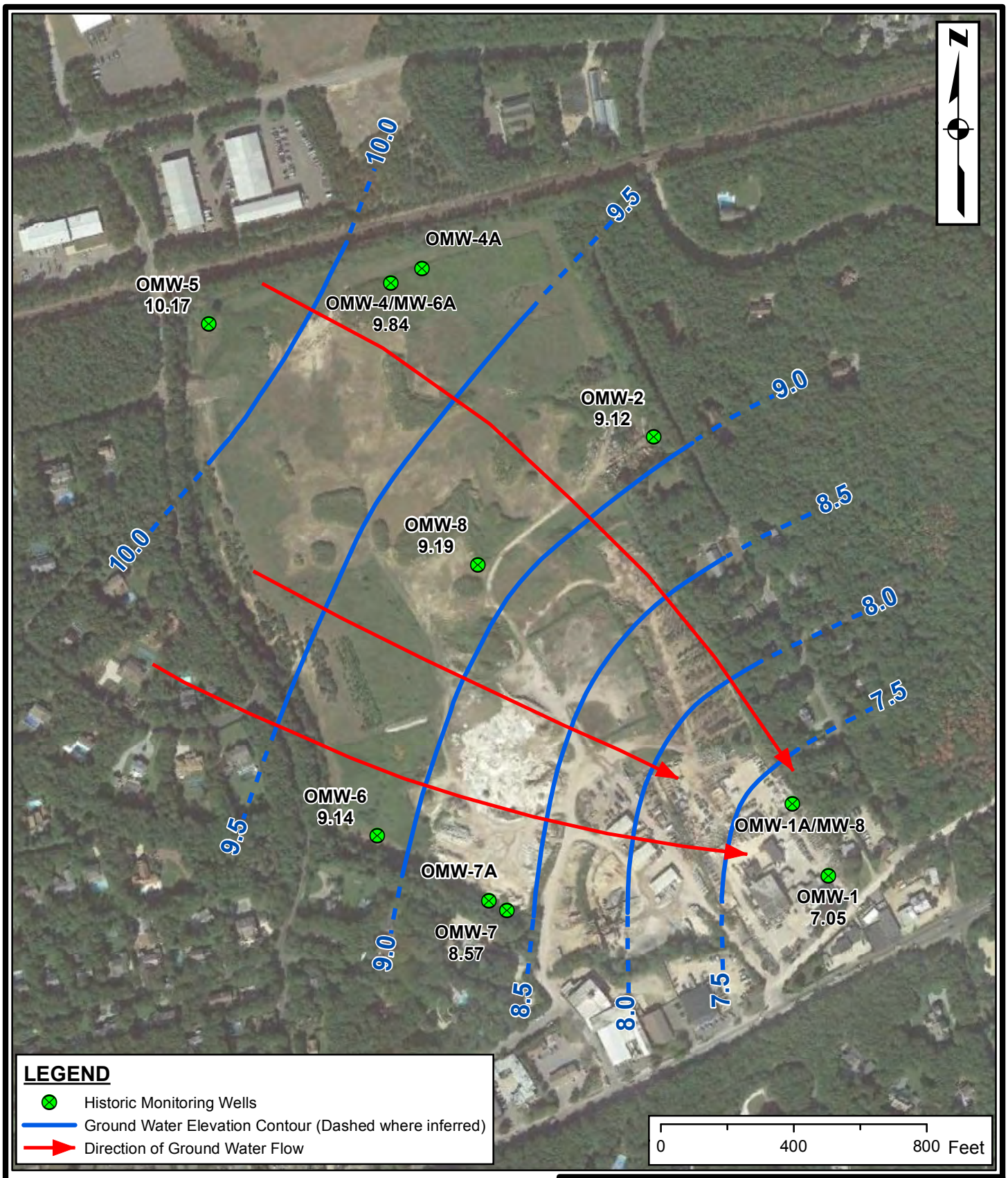

Notes:
-Basemap: Google Earth Imagery October 1, 2017, accessed September 25, 2018
-Old Monitoring wells (OMW) located approximately using map by Fox Land Surveying, September 24, 2001
-Water Table Measurements taken 3/22/2000

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 4
Historic Wells
With Water Table Elevation
Contour Map
from 3/22/2000
Wainscott Commerical Center
East Hampton, Suffolk County, New York

Path: Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\GWC_WTE_historic_wells3_22_2000.mxd
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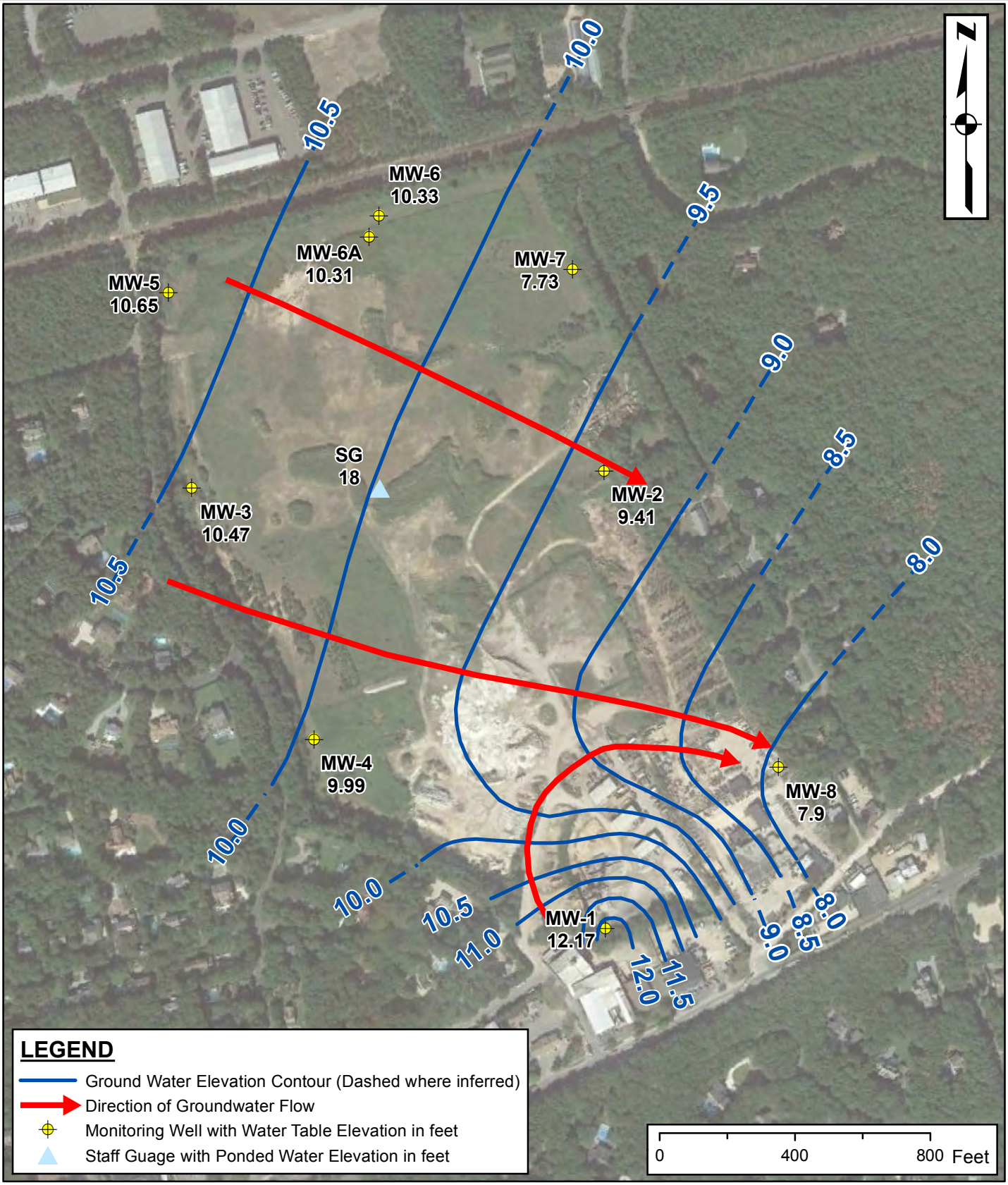

Notes:
-Basemap: Google Earth Imagery, October 1, 2017, accessed September 25, 2018
-Monitoring well and staff gauge are located by Fox Land Surveying on September 4, 2018
-Groundwater elevations measured June 26,2018

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 5
Water Table Contour Map
6/26/2018 Data

Wainscott Commerical Center
East Hampton, Suffolk County, New York

Path: Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\GW_contour_2018_06_26.mxd
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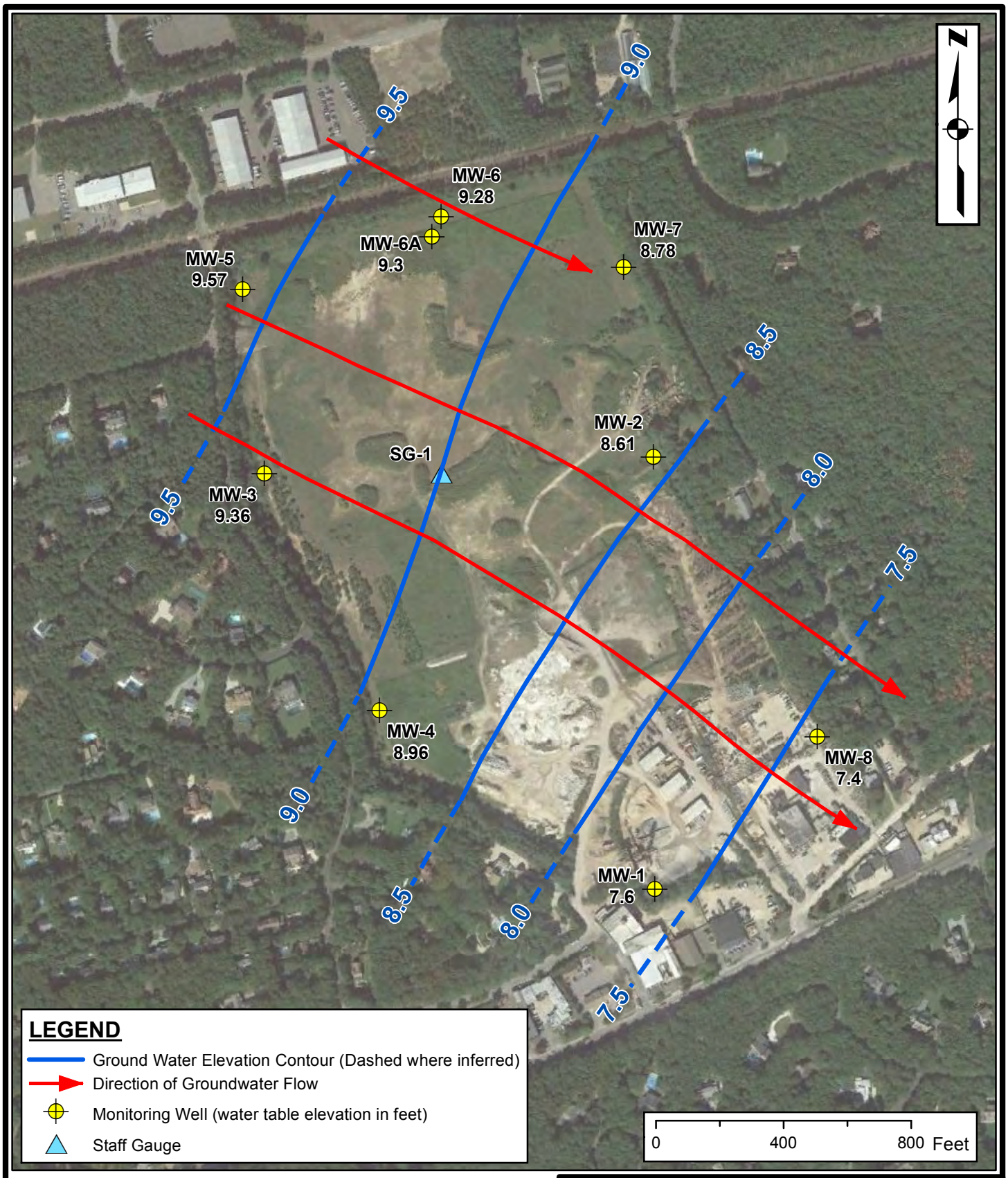

Notes:
-Basemap: Google Earth Imagery October 1, 2017, accessed September 25, 2018
-Monitoring well and staff gauge are located by Fox Land Surveying on September 14, 2018
-Groundwater elevations measured September 20,2018

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 6
Water Table Contour Map
9/20/2018 Data

Wainscott Commerical Center
East Hampton, Suffolk County, New York

Path: Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\Maps used in the Hydrogeologic Report\GW_contour_2018_09_20.mxd
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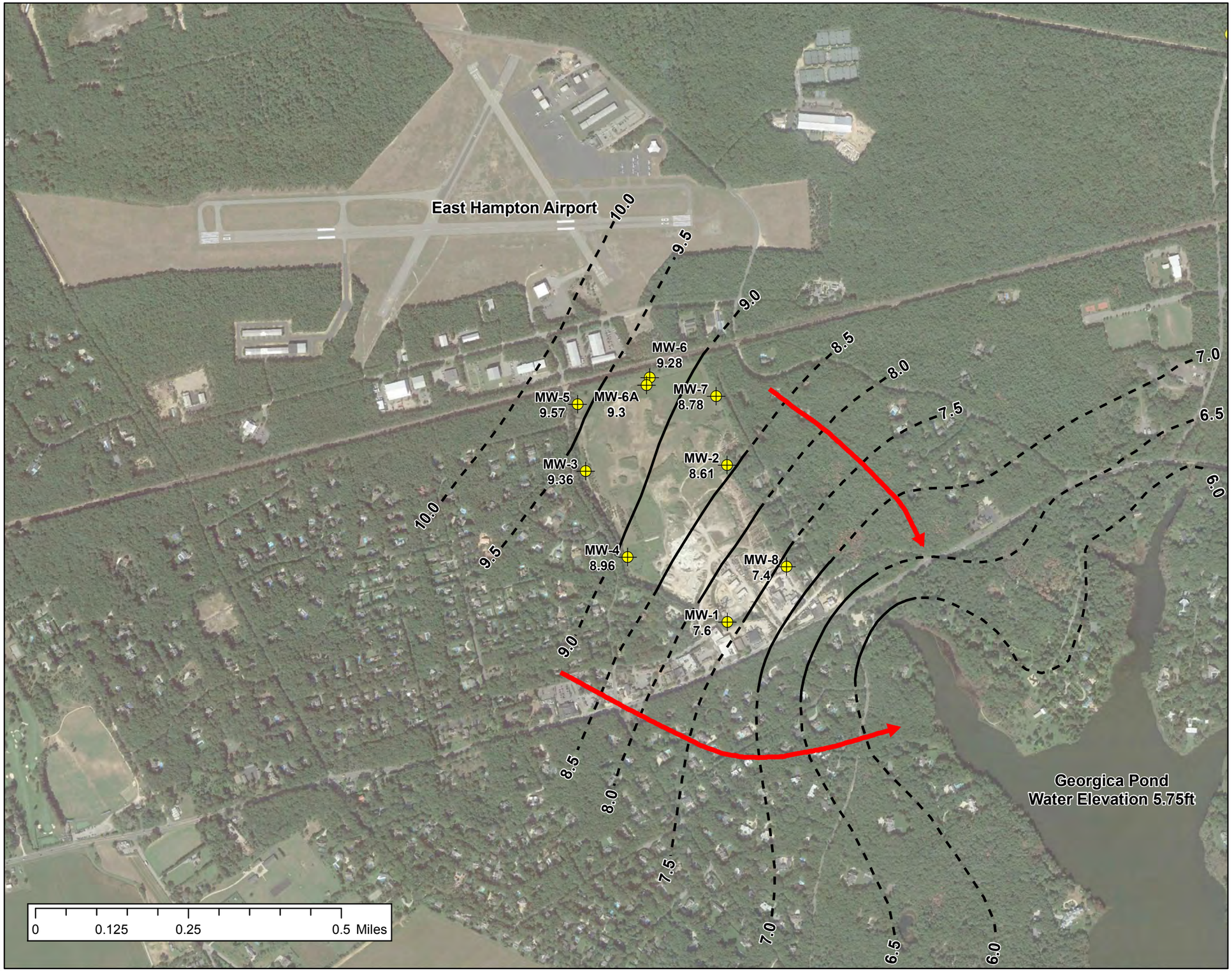


N

Legend

- Monitoring Well with Water Table Elevation in feet
- Groundwater Elevation Contour (dashed where inferred)
- Direction of Groundwater Flow

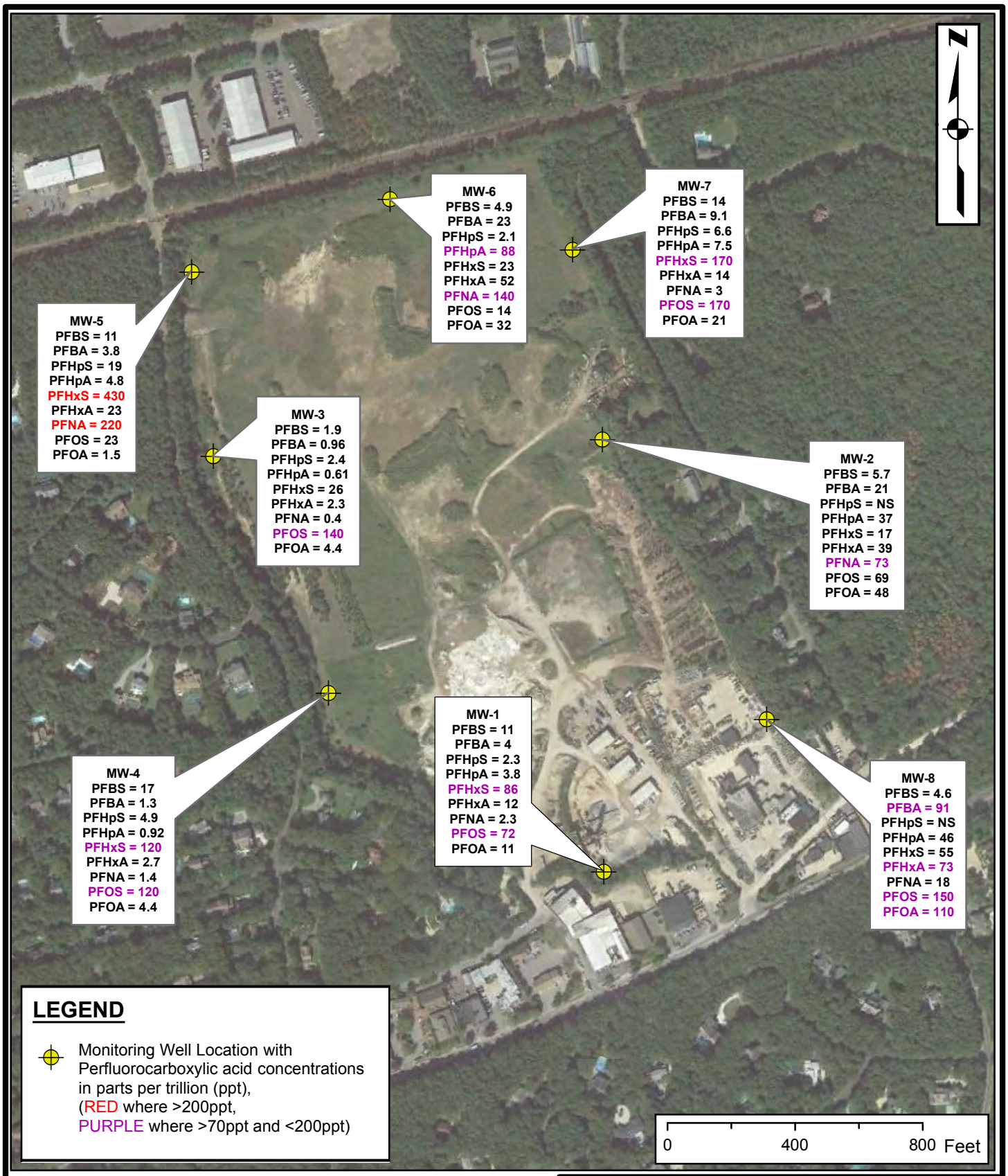
Notes:
--Basemap: Google Earth Imagery October 1, 2017, accessed September 25, 2018
-Monitoring well and staff gauge were located by Fox Land Surveying on September 14, 2018
-Groundwater elevation measured 9/20/2018
-Surface Water Elevation of Georgica Pond measured by USGS September 20, 2018

ALPHA GEOSCIENCE
Proj. No. 15109

FIGURE 7
Regional Water Table Map

Wainscott Commercial Center
Regional Map
Suffolk County, New York

Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\Regional_Map.mxd



Notes:
-Basemap: Google Earth Imagery, October 1, 2017, accessed September 25, 2018
-Monitoring well and staff gauge are located by Fox Land Surveying (September 4, 2018)

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 8
PFAS Concentrations
6/26/2018

Wainscott Commerical Center
East Hampton, Suffolk County, New York

Path: Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\Maps used in the Hydrogeologic Report\GW_Fluoro_compounds_Quality_2018_06_26.mxd
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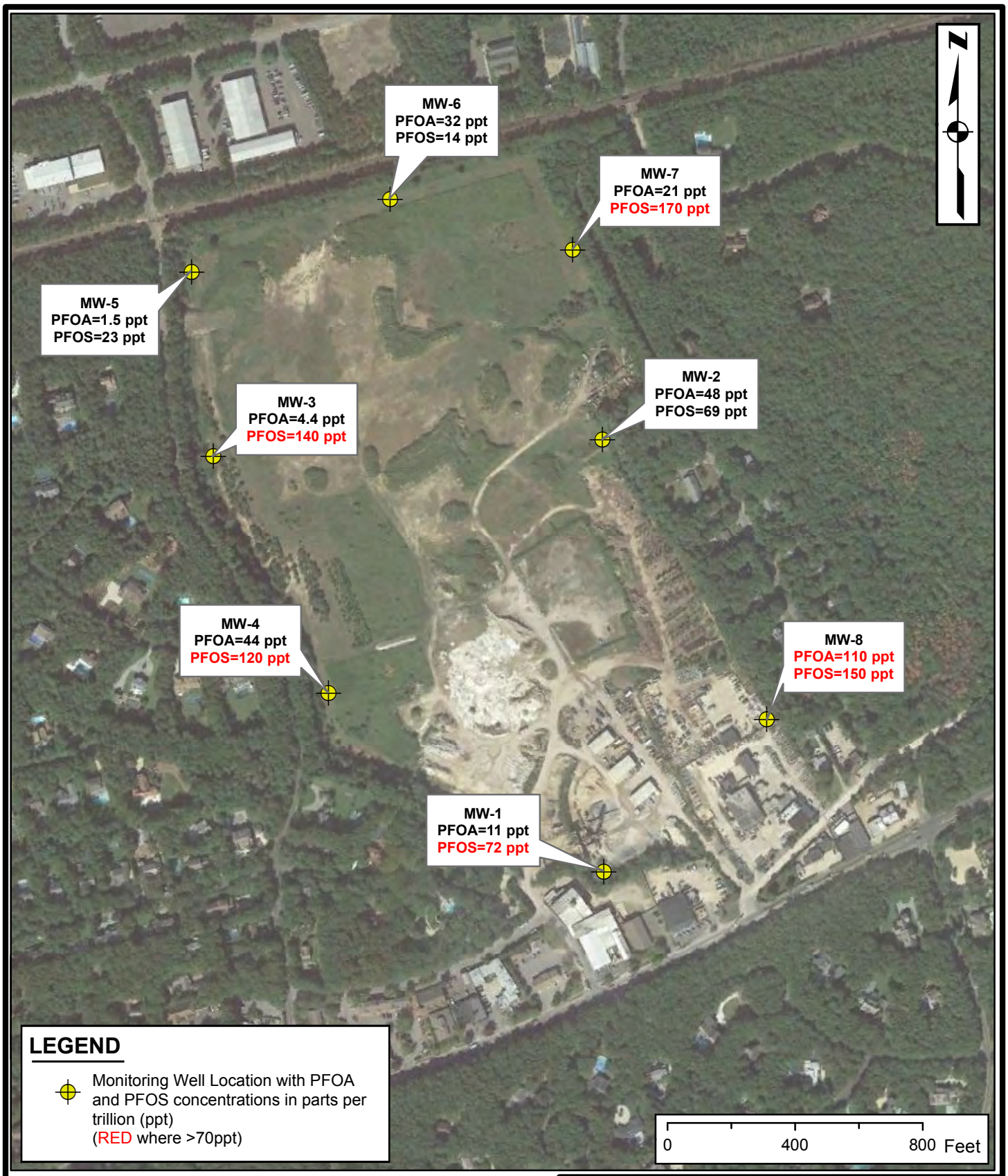

Notes:
-Basemap: Google Earth Imagery, October 1, 2017, accessed September 25, 2018
-Monitoring well and staff gauge are located by Fox Land Surveying (September 4, 2018)

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 9
PFOA and PFOS Concentrations 6/26/2018

Wainscott Commerical Center
East Hampton, Suffolk County, New York

Path: Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\Maps used in the Hydrogeologic Report\GW_PFOA_Quality_2018_06_26.mxd
Date Saved: 10/23/2018 3:45:52 PM

Notes:
-Basemap: Google Earth Imagery October 1, 2017, accessed September 25, 2018
-Old Monitoring wells (OMW) located approximately using map by Fox Land Surveying, September 24, 2001
-Samples taken 12/21/1999

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 10
Historic Wells
With Iron and Manganese
Concentrations on 12/21/1999

Wainscott Commerical Center
East Hampton, Suffolk County, New York

Path: Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\GWC_historic_wellsFEMN_ANNO1999.mxd
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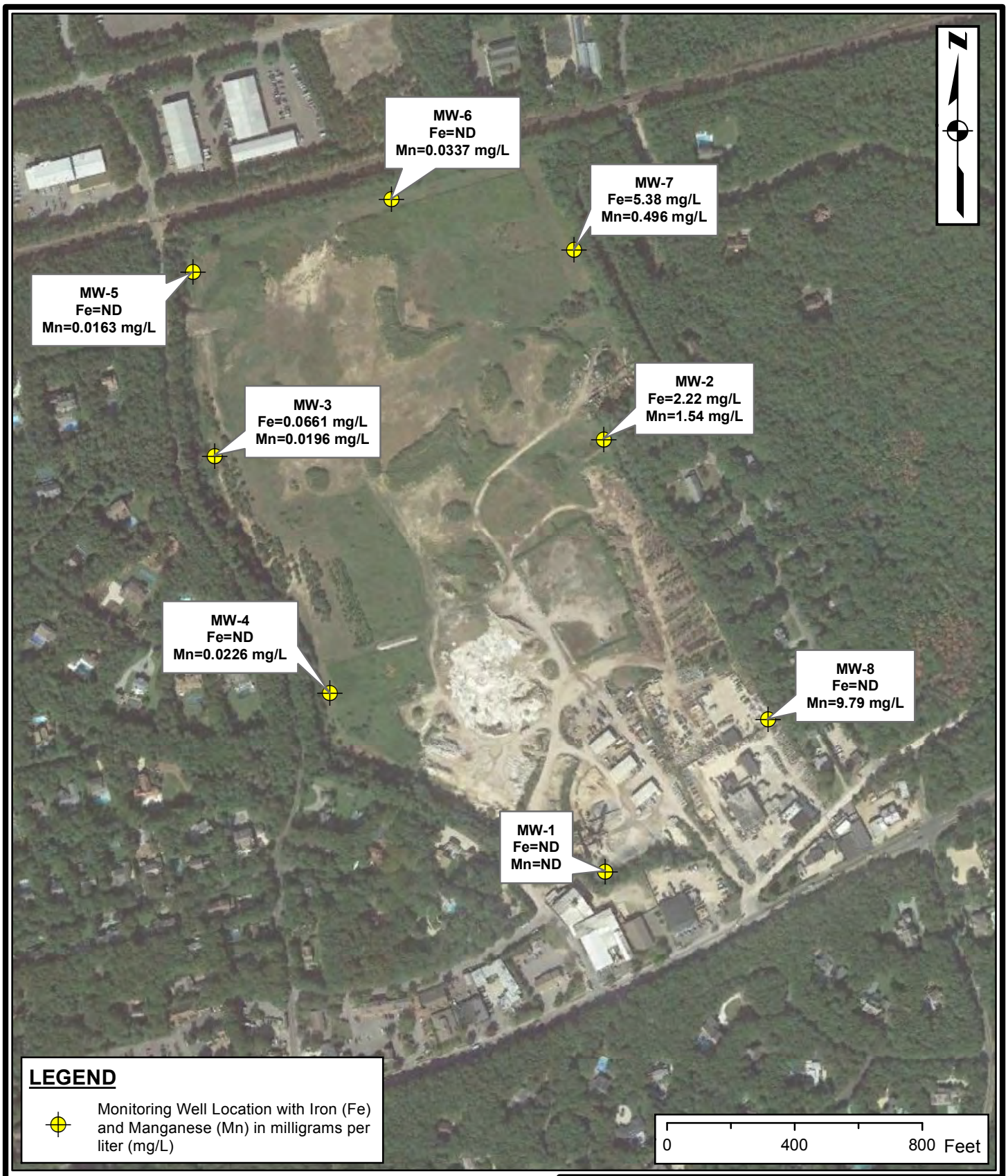

Notes:
-Basemap: Google Earth Imagery, October 1, 2017, accessed September 25, 2018
-Monitoring well and staff gauge are located by Fox Land Surveying (September 4, 2018)
-ND = Non Detect

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 11

Iron and Manganese Concentrations 6/26/2018

Wainscott Commerical Center
East Hampton, Suffolk County, New York

Path: Z:\projects\2017\17100 - 17120\17115 - Wainscott Commercial Center\15_0 GIS\Maps used in the Hydrogeologic Report\GW_FE_MN_Quality_2018_06_26.mxd
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APPENDICES

APPENDIX A

Geologic Logs
MW-1 through MW-7

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

GEOLOGIC LOG

Boring ID: MW-1

Project Number/Name: 17115 / Wainscott Commercial Center Location: Wainscott, NY

Drilling Contractor/Personnel: Clearwater Drilling / Bruce, Edgar, and Augusto

Geologist/Hydrogeologist: Steve Trader Start/ Finish Date: 6/7/2018

Drilling Equip/Method: CME 75 / Hollow Stem Auger Size/Type of Bit:6.25" OD, hollow stem auger

Sampling Method: split spoon Well Installed? Yes

Elevation/Ground Surface: 12.09 (ft rmsl)

Depth to Ground Water from Ground Surface (Date): 3.63 (ft rmsl) (6/7/2018)

REMARKS:

Depth (Ft)	Sample No.	Blows Per 6 In.	Recovery (ft)	DESCRIPTION	REMARKS
					Hollow Stem Auger to 5' with no sampling
2					
					At ~3', very moist to wet cuttings
4					
6	SS1	8 / 6 / 9 / 8	0.2	Light brown fine to coarse sand; wet, loose	Depth to water in augers after collecting split spoon SS1 is ~4' from grade
8					
10	SS2	9 / 13 / 12 / 16	0.8	Light brown fine to coarse sand; little (+) fine to coarse gravel; gravel is rounded, and of different lithologies and colors 12'	Pounded through quartz cobble in SS2
12				End of Boring	Well constructed with PVC screen 12' - 2'.

Proportions Used: Trace=0-10% Little=10-20% Some=20-35% And-35-50%

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

GEOLOGIC LOG

Boring ID: MW-2

Project Number/Name: 17115 / Wainscott Commercial Center Location: Wainscott, NY

Drilling Contractor/Personnel: Clearwater Drilling / Bruce, Edgar, and Augusto

Geologist/Hydrogeologist: Steve Trader Start/ Finish Date: 6/7/2018

Drilling Equip/Method: CME 75 / Hollow Stem Auger Size/Type of Bit: 6.25" OD, hollow stem auger

Sampling Method: split spoon Well Installed? Yes

Elevation/Ground Surface: 16.08 (ft rmsl)

Depth to Ground Water from Ground Surface (Date): 6.47 (ft rmsl) (6/7/2018)

REMARKS:

Depth (Ft)	Sample No.	Blows Per 6 In.	Recovery (ft)	DESCRIPTION	REMARKS
2 4				Brown silt; dry; trace fine sand; (from auger flights) trace fine gravel Change to light orange brown fine to coarse sand at ~4'	Hollow stem auger to 5' with no sampling
6	SS1	4 8 10 12	1.4	brown orange brown Light orange brown, fine (+) to coarse (-) sand, little fine to medium gravel; dry; loose; gravel is subrounded and varying lithologies, but mostly quartz; becoming wet ~7.8'	
8 10					
12	SS2	12 15 18 25	2.0	Change to coarse (+) to fine (-) sand; trace fine gravel; loose; saturated	Depth to water 7' from grade with augers to 10' and after spoon to 12'
14				15'	
				End of Boring	Well constructed with PVC screen 15' - 5'.

Proportions Used: Trace=0-10% Little=10-20% Some=20-35% And-35-50%

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

GEOLOGIC LOG

Boring ID: MW-3

Project Number/Name: 17115 / Wainscott Commercial Center Location: Wainscott, NY

Drilling Contractor/Personnel: Clearwater Drilling / Bruce, Edgar, and Augusto

Geologist/Hydrogeologist: Steve Trader Start/ Finish Date: 6/7/2018

Drilling Equip/Method: CME 75 / Hollow Stem Auger Size/Type of Bit: 6.25" OD, hollow stem auger

Sampling Method: split spoon Well Installed? Yes

Elevation/Ground Surface: 16.35 (ft rsml)

Depth to Ground Water from Ground Surface (Date): 5.73 (ft rsml) (6/7/2018)

REMARKS:

Depth (Ft)	Sample No.	Blows Per 6 In.	Recovery (ft)	DESCRIPTION	REMARKS
2, 4				Brown silt, little fine sand; dry (cuttings)	Hollow stem auger to 5' with no sampling
				5.2'	
6	SS1	6 / 9 / 11 / 8	1.4	Light orange brown, fine (+) to coarse (-) sand; loose; moist; possibly getting wet at 7'	SS1 dry to moist
8					
					SS2 wet
10	SS2	12 / 15 / 18 / 25	2.0	Similar to SS1, but more coarse sand; little fine to medium gravel; rounded; loose; saturated	Depth to water = 4.2' from grade, with 10' of augers in hole and after SS2
				12'	
12				End of Boring	Well constructed with PVC screen 12' - 2'.

Proportions Used: Trace=0-10% Little=10-20% Some=20-35% And-35-50%

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

GEOLOGIC LOG

Boring ID: MW-4

Project Number/Name: 17115 / Wainscott Commercial Center Location: Wainscott, NY

Drilling Contractor/Personnel: Clearwater Drilling / Bruce, Edgar, and Augusto

Geologist/Hydrogeologist: Steve Trader Start/ Finish Date: 6/7/2018

Drilling Equip/Method: CME 75 / Hollow Stem Auger Size/Type of Bit: 6.25" OD, hollow stem auger

Sampling Method: split spoon Well Installed? Yes

Elevation/Ground Surface: 15.63 (ft rmsl)

Depth to Ground Water from Ground Surface (Date): 5.72 (ft rsml) (6/7/2018)

REMARKS:

Depth (Ft)	Sample No.	Blows Per 6 In.	Recovery (ft)	DESCRIPTION	REMARKS
2 4					Hollow stem auger to 5' with no sampling
6	SS1	4 / 4 / 3 / 6	1.6	Light orange brown, fine (+) to coarse (-) sand; moist; loose	
8 10					
12	SS2	4 / 5 / 8 / 9	2.0	Light brown fine to coarse sand, loose, saturated; coarser toward base with trace fine to medium gravel	Depth to water = 6' from grade, with augers at 10' TD after SS2
14				14' End of Boring	Well constructed with PVC screen 14' - 4'.

Proportions Used: Trace=0-10% Little=10-20% Some=20-35% And-35-50%

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

GEOLOGIC LOG

Boring ID: MW-5

Project Number/Name: 17115 / Wainscott Commercial Center Location: Wainscott, NY

Drilling Contractor/Personnel: Clearwater Drilling / Bruce, Edgar, and Augusto

Geologist/Hydrogeologist: Steve Trader Start/ Finish Date: 6/8/2018

Drilling Equip/Method: CME 75 / Hollow Stem Auger Size/Type of Bit: 6.25" OD, hollow stem auger

Sampling Method: split spoon Well Installed? Yes

Elevation/Ground Surface: 19.35 (ft rmsl)

Depth to Ground Water from Ground Surface (Date): 8.56 (ft rmsl) (6/8/2018)

REMARKS:

Depth (Ft)	Sample No.	Blows Per 6 In.	Recovery (ft)	DESCRIPTION	REMARKS
2 4				Brown fine (+) to coarse sand, trace (+) subrounded to rounded fine gravel; moist; loose; becoming light orange brown ~ 5-6'	Hollow stem auger to 5' with no sampling
6	SS1	6 / 8 / 12 / 15	1.5		SS1 Moist
8 10					
12	SS2	NM / NM / NM / NM	1.3		SS2 Moist Checked Depth to water with meter and wet sand at ~9' bgs
14					* Drillers had to add water to keep material out of augers while drilling 10 - 15'
16	SS3	6 / 8 / 10 / 6	1.8	Light brown fine to coarse (+) sand, little fine gravel, wet*, loose 17'	
18				End of Boring	Well constructed with PVC screen 17' - 7'.

Proportions Used: Trace=0-10% Little=10-20% Some=20-35% And-35-50%

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

GEOLOGIC LOG

Boring ID: MW-6

Project Number/Name: 17115 / Wainscott Commercial Center Location: Wainscott, NY

Drilling Contractor/Personnel: Clearwater Drilling / Bruce, Edgar, and Augusto

Geologist/Hydrogeologist: Steve Trader Start/ Finish Date: 6/8/2018

Drilling Equip/Method: CME 75 / Hollow Stem Auger Size/Type of Bit: 6.25" OD, hollow stem auger

Sampling Method: split spoon Well Installed? Yes

Elevation/Ground Surface: 16.07 (ft rmsl)

Depth to Ground Water from Ground Surface (Date): 5.57 (ft rmsl) (6/8/2018)

REMARKS:

Depth (Ft)	Sample No.	Blows Per 6 In.	Recovery (ft)	DESCRIPTION	REMARKS
2, 4				Orange brown fine (+) to coarse sand (cuttings)	Hollow stem auger to 5' with no sampling
6	SS1	6 8 11 11	1.2	Light orange brown fine to coarse sand, moist, loose	
8					
10, 12	SS2	3 6 8 10	1.8	Light orange brown fine to coarse (+) sand, saturated, loose	Depth to water = 6.8' from grade within augers after SS2 (nearby old well Depth to water = 5' bgs)
14				14'	
16, 18				End of Boring	Well constructed with PVC screen 14' - 4'.

Proportions Used: Trace=0-10% Little=10-20% Some=20-35% And-35-50%

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

GEOLOGIC LOG

Boring ID: MW-7

Project Number/Name: 17115 / Wainscott Commercial Center Location: Wainscott, NY

Drilling Contractor/Personnel: Clearwater Drilling / Bruce, Edgar, and Augusto

Geologist/Hydrogeologist: Steve Trader Start/ Finish Date: 6/8/2018

Drilling Equip/Method: CME 75 / Hollow Stem Auger Size/Type of Bit: 6.25" OD, hollow stem auger

Sampling Method: split spoon Well Installed? Yes

Elevation/Ground Surface: 15.28 (ft rmsl)

Depth to Ground Water from Ground Surface (Date): 5.37 (ft rmsl) (6/8/2018)

REMARKS:

Depth (Ft)	Sample No.	Blows Per 6 In.	Recovery (ft)	DESCRIPTION	REMARKS
2					Hollow stem auger to 5' with no sampling
4					Water at ~ 4.5 to 5'
6	SS1	6 / 8 / 10 / 12	1.7	Light brown to light orange brown fine (+) to coarse sand, trace fine gravel; moist, to wet at tip of spoon; loose	
8					
10	SS2	7 / 8 / 9 / 9	1.0		Depth to water = 6' in augers after SS2
12				Fine to coarse (+) sand; little (+) fine medium gravel, rounded; loose, saturated	
14				14'	
16				End of Boring	Well constructed with PVC screen 14' - 4'.
18					

Proportions Used: Trace=0-10% Little=10-20% Some=20-35% And-35-50%

APPENDIX B

Monitoring Well Completion Logs
MW-1 through MW-7

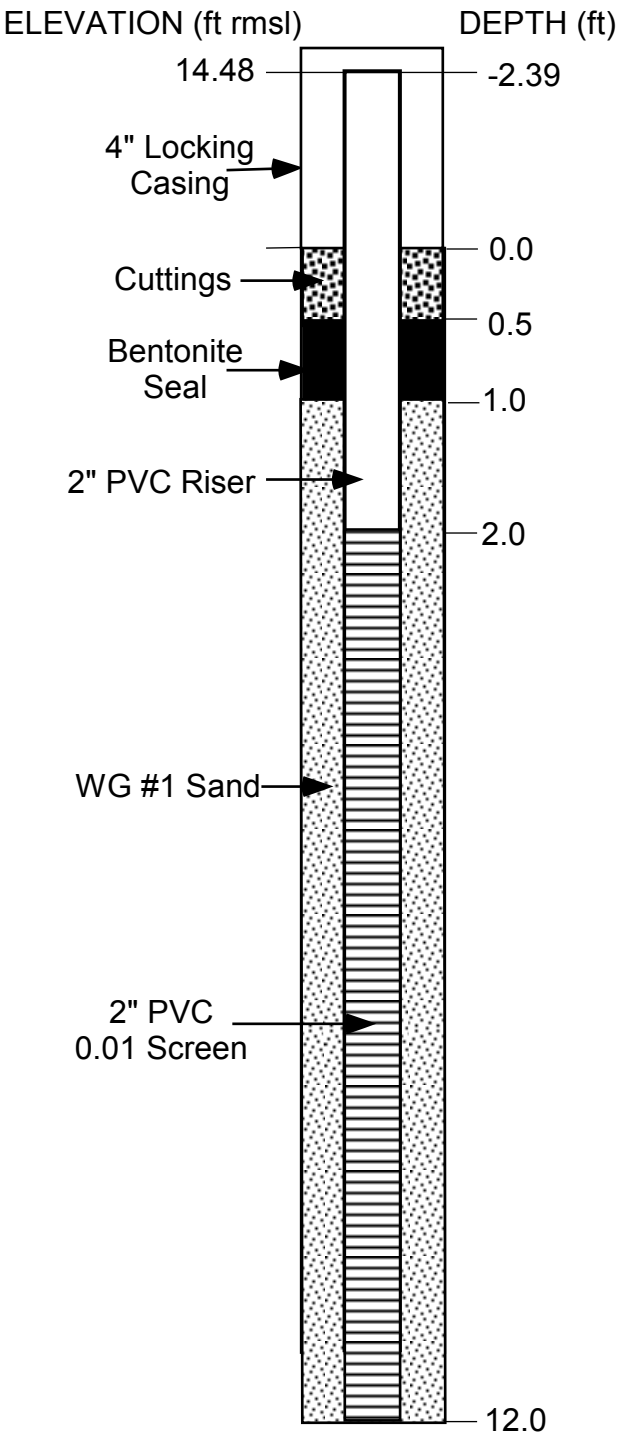
MONITORING WELL COMPLETION LOG

679 Plank Road
Clifton Park, New York
(518) 348-6995

www.alphageoscience.com

Well	MW-1
Project	Wainscott Commercial Center
Project No.	17115
Date Drilled	6/7/2018
Developed	6/7/2018

WELL CONSTRUCTION DETAILS



NOT TO SCALE

INSPECTION NOTES

Geologist Steve Trader
Drilling Contractor Clearwater Drilling
Type of Well Monitoring Well
Static Water Level 6.02' Date 6/7/2018
Measuring Point Top of PVC
Total Well Depth 12' below grade

Riser Pipe
Material PVC Diameter 2"
Length 2' + 2.39' stickup Joint Type flush threaded

Screen
Material PVC Diameter 2"
Slot Size 0.01 Length 10'
Stratigraphic Unit Screened sand and gravel

Packing
Sand x Gravel _____ Natural _____
Amount 3.5 50-lb bags Interval 12' - 1.0'

Seal
Type bentonite tablets Interval 1.0' - 0.5'

Locking Casing Yes
Diameter 4"

Notes:

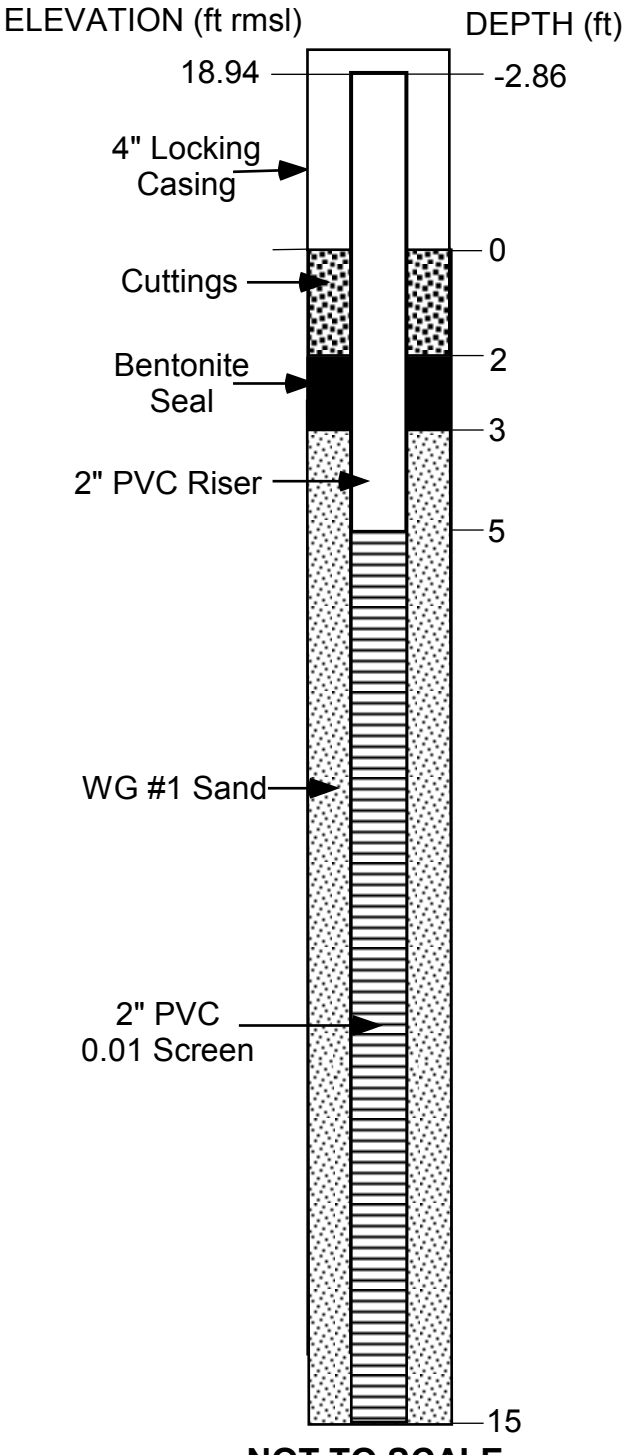
MONITORING WELL COMPLETION LOG

679 Plank Road
Clifton Park, New York
(518) 348-6995

www.alphageoscience.com

Well MW-2
Project Wainscott Commercial Center
Project No. 17115
Date Drilled 6/7/2018
Developed 6/7/2018

WELL CONSTRUCTION DETAILS



NOT TO SCALE

INSPECTION NOTES

Geologist Steve Trader
Drilling Contractor Clearwater Drilling
Type of Well Monitoring Well
Static Water Level 9.33' Date 6/7/2018
Measuring Point Top of PVC
Total Well Depth 15' below grade

Riser Pipe
Material PVC Diameter 2"
Length 5' + 2.86' stickup Joint Type flush threaded

Screen
Material PVC Diameter 2"
Slot Size 0.01 Length 10'
Stratigraphic Unit Screened sand and gravel

Packing
Sand x Gravel Natural
Amount 4 50-lb bags Interval 15' - 3'

Seal
Type bentonite tablets Interval 3' - 2'

Locking Casing Yes
Diameter 4"

Notes:

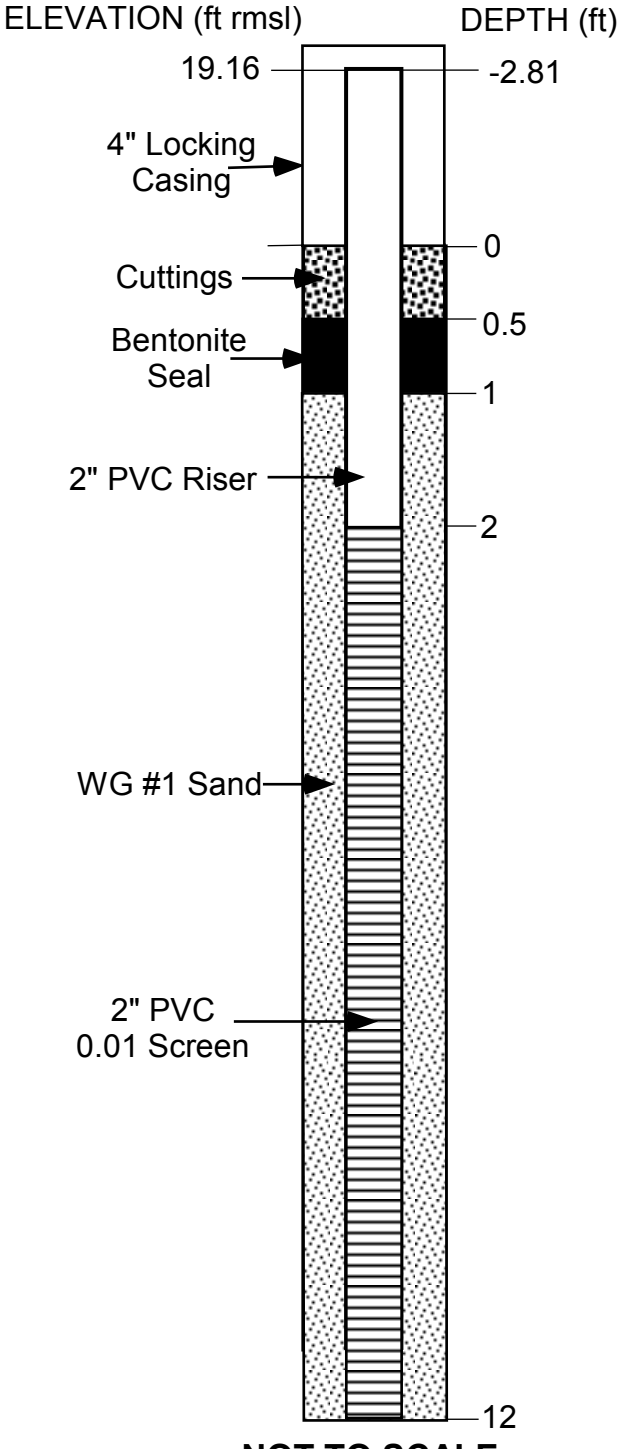
MONITORING WELL COMPLETION LOG

679 Plank Road
Clifton Park, New York
(518) 348-6995

www.alphageoscience.com

Well MW-3
Project Wainscott Commercial Center
Project No. 17115
Date Drilled 6/7/2018
Developed 6/7/2018

WELL CONSTRUCTION DETAILS



NOT TO SCALE

INSPECTION NOTES

Geologist Steve Trader
Drilling Contractor Clearwater Drilling
Type of Well Monitoring Well
Static Water Level 8.54' Date 6/7/2018
Measuring Point Top of PVC
Total Well Depth 12' below grade

Riser Pipe
Material PVC Diameter 2"
Length 2' + 2.81' stickup Joint Type flush threaded

Screen
Material PVC Diameter 2"
Slot Size 0.01 Length 10'
Stratigraphic Unit Screened sand and gravel

Packing
Sand x Gravel _____ Natural _____
Amount 4 50-lb bags Interval 12' - 1'

Seal
Type bentonite tablets Interval 1.0' - 0.5'

Locking Casing Yes
Diameter 4"

Notes:

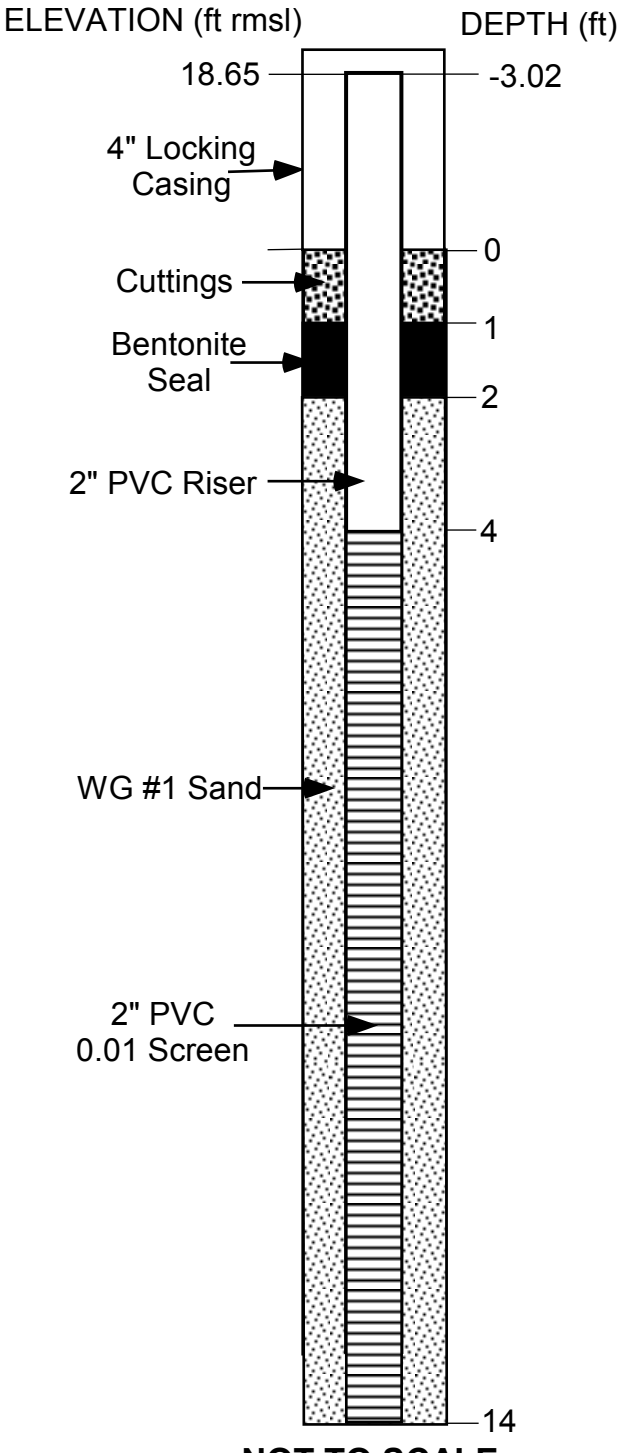
MONITORING WELL COMPLETION LOG

679 Plank Road
Clifton Park, New York
(518) 348-6995

www.alphageoscience.com

Well MW-4
Project Wainscott Commercial Center
Project No. 17115
Date Drilled 6/7/2018
Developed 6/7/2018

WELL CONSTRUCTION DETAILS



NOT TO SCALE

INSPECTION NOTES

Geologist Steve Trader
Drilling Contractor Clearwater Drilling
Type of Well Monitoring Well
Static Water Level 8.74' Date 6/7/2018
Measuring Point Top of PVC
Total Well Depth 14' below grade

Riser Pipe
Material PVC Diameter 2"
Length 2' + 3.02' stickup Joint Type flush threaded

Screen
Material PVC Diameter 2"
Slot Size 0.01 Length 10'
Stratigraphic Unit Screened sand and gravel

Packing
Sand x Gravel Natural
Amount 6 50-lb bags Interval 14' - 2'

Seal
Type bentonite tablets Interval 2' - 1'

Locking Casing Yes
Diameter 4"

Notes: Stickup not measured. (surveyed at a later date)

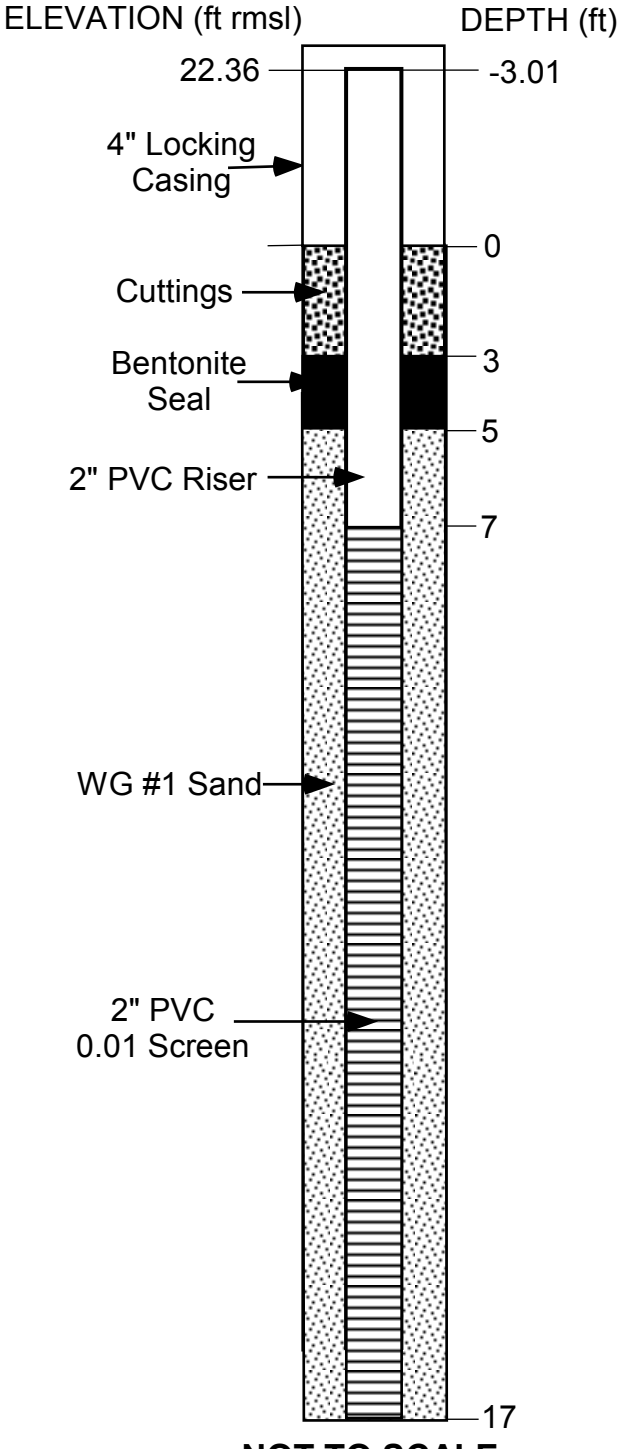
MONITORING WELL COMPLETION LOG

679 Plank Road
Clifton Park, New York
(518) 348-6995

www.alphageoscience.com

Well	MW-5
Project	Wainscott Commercial Center
Project No.	17115
Date Drilled	6/8/2018
Developed	6/8/2018

WELL CONSTRUCTION DETAILS



NOT TO SCALE

INSPECTION NOTES

Geologist Steve Trader
Drilling Contractor Clearwater Drilling
Type of Well Monitoring Well
Static Water Level 11.57' Date 6/8/2018
Measuring Point Top of PVC
Total Well Depth 17' below grade

Riser Pipe
Material PVC Diameter 2"
Length 7' + 3.01' stickup Joint Type flush threaded

Screen
Material PVC Diameter 2"
Slot Size 0.01 Length 10'
Stratigraphic Unit Screened sand and gravel

Packing
Sand x Gravel _____ Natural _____
Amount 6 50-lb bags Interval 17' - 5'

Seal
Type bentonite tablets Interval 5' - 3'

Locking Casing Yes
Diameter 4"

Notes:

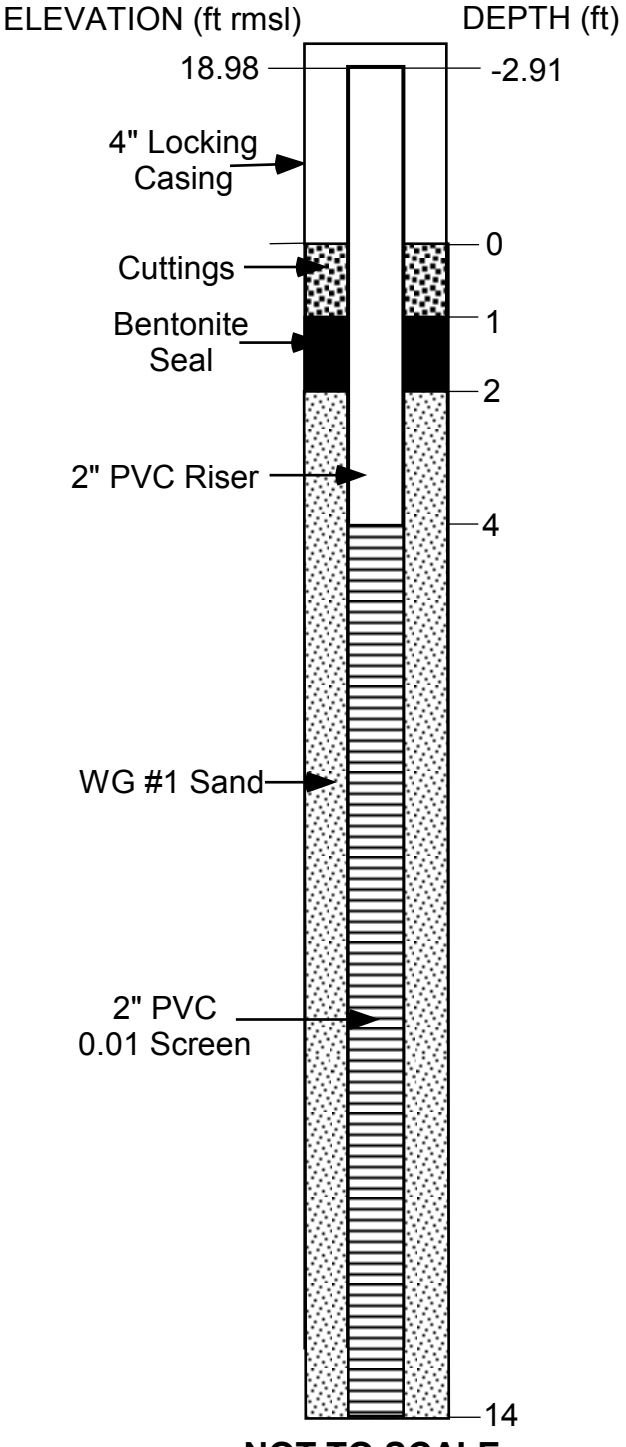
MONITORING WELL COMPLETION LOG

679 Plank Road
Clifton Park, New York
(518) 348-6995

www.alphageoscience.com

Well MW-6
Project Wainscott Commercial Center
Project No. 17115
Date Drilled 6/8/2018
Developed 6/8/2018

WELL CONSTRUCTION DETAILS



NOT TO SCALE

INSPECTION NOTES

Geologist Steve Trader
Drilling Contractor Clearwater Drilling
Type of Well Monitoring Well
Static Water Level 8.48' Date 6/8/2018
Measuring Point Top of PVC
Total Well Depth 14' below grade

Riser Pipe
Material PVC Diameter 2"
Length 4' + 2.91' stickup Joint Type flush threaded

Screen
Material PVC Diameter 2"
Slot Size 0.01 Length 10'
Stratigraphic Unit Screened sand and gravel

Packing
Sand x Gravel Natural
Amount 5 50-lb bags Interval 14' - 2'

Seal
Type bentonite tablets Interval 2' - 1'

Locking Casing Yes
Diameter 4"

Notes:

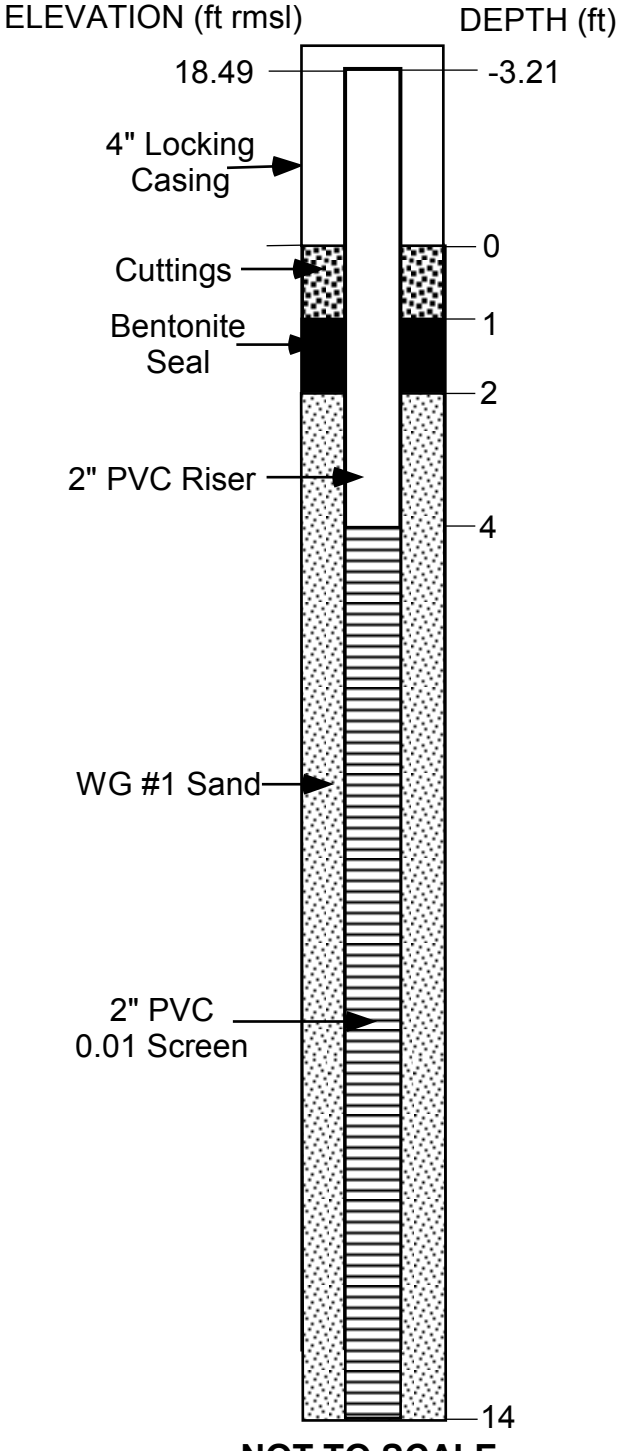
MONITORING WELL COMPLETION LOG

679 Plank Road
Clifton Park, New York
(518) 348-6995

www.alphageoscience.com

Well MW-7
Project Wainscott Commercial Center
Project No. 17115
Date Drilled 6/8/2018
Developed 6/8/2018

WELL CONSTRUCTION DETAILS



NOT TO SCALE

INSPECTION NOTES

Geologist Steve Trader
Drilling Contractor Clearwater Drilling
Type of Well Monitoring Well
Static Water Level 8.58' Date 6/8/2018
Measuring Point Top of PVC
Total Well Depth 14' below grade

Riser Pipe
Material PVC Diameter 2"
Length 4' + 3.21' stickup Joint Type flush threaded

Screen
Material PVC Diameter 2"
Slot Size 0.01 Length 10'
Stratigraphic Unit Screened sand and gravel

Packing
Sand x Gravel Natural
Amount 5 50-lb bags Interval 14' - 2'

Seal
Type bentonite tablets Interval 2' - 1'

Locking Casing Yes
Diameter 4"

Notes:

APPENDIX C

USGS Water Elevation Data for Georgica Pond

National Water Information System: Web Interface

USGS Water Resources

Data Category: Surface Water ▼ Geographic Area: New York ▼ GO

Click to hideNews Bulletins

- Please see news on new formats
- Full News

Click to hide state-specific text
ALL DATA ARE EASTERN STANDARD TIME

USGS 01304705 GEORGICA POND NEAR APAQUOQUE NY

PROVISIONAL DATA SUBJECT TO REVISION

Available data for this site Time-series: Daily data ▼ GO

Click to hidestation-specific text

Funding for this site is provided by:

Suffolk County Water Authority

Village of East Hampton

Friends of Georgica Pond Foundation

USGS - Cooperative Matching Funds

LOCATION.-- Lat 40°56'00", long 72°13'30" referenced to North American Datum of 1927, Suffolk County, NY, Hydrologic Unit 02030202, on southeastern shore at Village of East Hampton preserve on West End Road, near Apaquogue.
PERIOD OF RECORD.-- June 2003 to October 2008, July 2009 to current year.
GAGE.-- Water-stage recorder. Datum of gage is NGVD of 1929.
REMARKS.-- Records good. During spring and fall, pond is opened to Atlantic Ocean to regulate stage for fisheries management, flood control, and sanitary improvement. Satellite elevation telemeter at station.
EXTREMES FOR PERIOD OF RECORD.-- Maximum elevation, 8.32 ft, Mar. 31, 2010; minimum elevation, 1.89 ft, May 20, 2004.

Peak Flow and Stage Information

Station image

This station managed by the NY Water Science Center Coram.

Available Parameters	Period of Record
All 1 Available Parameters for this site	
62614 Elevation, lake/res,(Mean)	2003-06-04 2018-09-24

Output format

- Graph
- Graph w/ stats
- Graph w/ (up to 3) parms
- Table
- Tab-separated

Days (115) Summary of all available data for this site

Instantaneous-data availability statement

GO

-- or --

Begin date

2018-06-01

End date

2018-09-24

Daily Mean Lake or reservoir water surface elevation above NGVD 1929, feet

DATE	Jun 2018	Jul 2018	Aug 2018	Sep 2018
1	5.53P	5.82P	5.63P	5.51P
2	5.65P	5.79P	5.64P	5.50P
3	5.74P	5.76P	5.63P	5.49P
4	5.88P	5.73P	5.69P	5.49P
5	5.88P	5.71P	5.70P	5.49P
6	5.88P	5.72P	5.67P	5.50P
7	5.88P	5.68P	5.64P	5.51P
8	5.85P	5.64P	5.62P	5.52P
9	5.80P	5.62P	5.61P	5.56P
10	5.77P	5.61P	5.60P	5.72P
11	5.73P	5.62P	5.78P	5.84P

12	5.70P	5.70P	5.75P	5.81P
13	5.74P	5.77P	5.78P	5.81P
14	5.77P	5.75P	5.82P	5.91P
15	5.77P	5.72P	5.75P	5.91P
16	5.75P	5.69P	5.70P	5.82P
17	5.72P	5.71P	5.65P	5.78P
18	5.70P	5.74P	5.81P	5.81P
19	5.71P	5.67P	5.92P	5.83P
20	5.67P	5.63P	5.80P	5.75P
21	5.74P	5.59P	5.75P	5.71P
22	5.70P	5.79P	5.76P	5.68P
23	5.79P	5.74P	5.76P	5.65P
24	5.79P	5.72P	5.73P	5.63P
25	5.86P	5.71P	5.68P	
26	5.81P	5.88P	5.65P	
27	5.78P	5.80P	5.64P	
28	5.78P	5.76P	5.62P	
29	5.81P	5.73P	5.60P	
30	5.84P	5.70P	5.57P	
31		5.66P	5.54P	
COUNT	30	31	31	24
MAX	5.88	5.88	5.92	5.91
MIN	5.53	5.59	5.54	5.49

Explanation

P	Provisional data subject to revision.

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

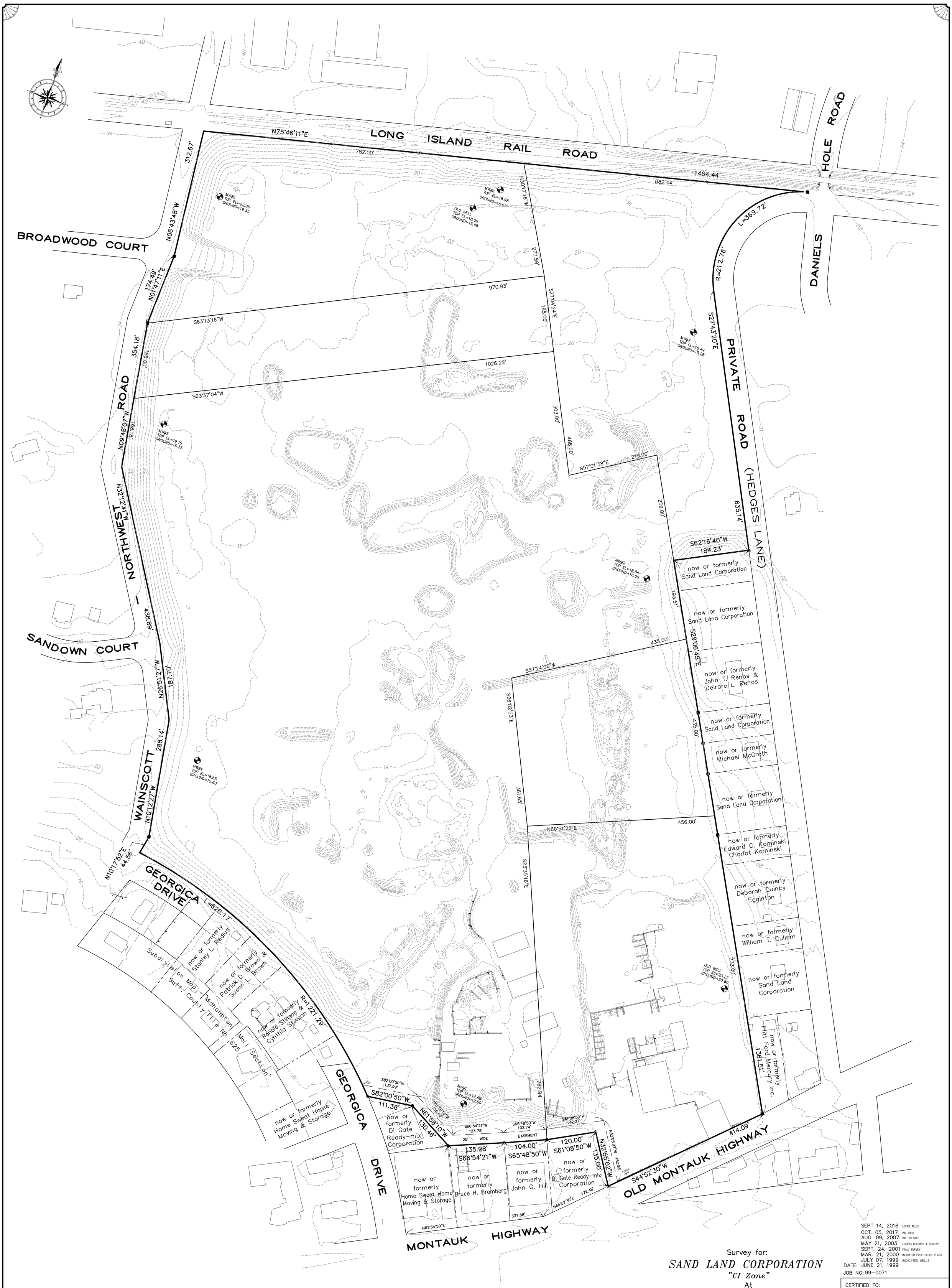
Accessibility Plug-Ins FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey
Title: USGS Surface-Water Daily Data for New York
URL: https://waterdata.usgs.gov/ny/nwis/dv?

Page Contact Information: New York Water Data Support Team
Page Last Modified: 2018-09-25 10:56:10 EDT
0.96 0.88 caww01

APPENDIX D

Topographic and Well Survey Map of
Wainscott Commercial Center
by Fox Land Surveying
September 14, 2018



Survey for:

SAND LAND CORPORATION

"CI Zone"

At

Wainscott

Town of

East Hampton

Suffolk County, New York

S.C.T.M.: 0300–192.00–02.00–006.002, 006.003, 006.004, 006.005, 006.006, 006.007

100 0 100

SCALE: 1"=100'

NOTES:

1. TOTAL AREA = 70.5119 ACRES
2. ■ = MONUMENT FOUND, ○ = IRON ROD FOUND.
3. REFERENCE DEED; L 11812 CP 735
4. STRUCTURES NOT SHOWN HEREON.
5. TOPOGRAPHY SHOWN HEREON IS FROM PHOTOGRAPHIC METHODS PROVIDED BY GEOMAPS INTERNATIONAL INC. IN AUG. 2017.
6. ELEVATIONS SHOWN HEREON ARE REFERENCED TO N.A.V. DATUM 1988.

SEPT 14, 2018	LOCATE WELLS	
OCT. 05, 2017	IND. TOPO	
AUG. 09, 2007	IND. LOT LINES	
MAY 21, 2003	LOCATED BUILDINGS & TRAILORS	
SEPT. 24, 2001	FINAL SURVEY	
MAR. 21, 2000	INDICATED PROP BLOCK PLANT	
JULY 07, 1999	INDICATED WELLS	

DATE: JUNE 21, 1999

JOB NO: 99–0071

CERTIFIED TO:
SAND LAND CORPORATION

DAVID H. FOX N.Y.S.L.S. #50234
FOX LAND SURVEYING
64 SUNSET AVENUE
WESTHAMPTON BEACH, N.Y. 11978
(631) 288–0022

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY IS A VIOLATION OFSECTION 7209 OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

CERTIFICATION INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON , AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

DWG: 990071

APPENDIX E

NYSDEC and SCDHS Letters Regarding PFC Investigation in East Hampton

E.1.6.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau A
625 Broadway, 12th Floor, Albany, NY 12233-7015
P: (518) 402-9625 | F: (518) 402-9627

November 10, 2017

Mr. Larry Cantwell, Supervisor
Town of East Hampton
159 Pantiago Road
East Hampton, NY 11937

Re: Potential Hazardous Waste Disposal Site

Dear Mr. Cantwell:

As required by subdivision 27-1305(2)(a) of the Environmental Conservation Law (ECL, quoted below), the New York State Department of Environmental Conservation (DEC) must investigate all suspected or known inactive hazardous waste disposal sites. We have received information that certain perfluorinated compounds (PFCs) have been detected in nearby water supply wells, which may be attributable to current or past operations on your property. These compounds are known components of firefighting foams, and are listed as hazardous substances in New York State (6 NYCRR Part 597). This information leads us to suspect that hazardous waste may have been disposed of at the following location:

Site Name: East Hampton Airport
Site Address: 200 Daniels Hole Road, Wainscott, NY 11975
DEC Site No.: 152250
Tax Map Identifier(s): 18100-200-6000, 18000-100-8013, 18100-200-1000, 18100-200-3000, 19100-300-1001, 18100-300-1001, 18100-300-3000, 18100-300-2000, 18100-200-4000, 18100-200-2000, 19200-300-50000, 18100-200-5000, 19200-300-42001, 18100-500-1001

Therefore, this letter constitutes DEC's notification to you as the identified property owner that this property is considered a potential inactive hazardous waste disposal site. If DEC determines that hazardous waste has been disposed of on the property and that the hazardous waste poses a significant threat to public health or the environment, the property will be listed on the Registry of Inactive Hazardous Waste Disposal Sites (Registry).

If you have any information that may be relevant to our investigation and pending determination, please forward it to DEC as soon as possible. Such information includes the locations of firefighting foam storage, use, and training activities; and the brand names of all aqueous film forming foam (AFFF) handled at the site.

This letter also serves as DEC's notification to you of the need to carry out an investigation in accordance with DEC's technical requirements for a site characterization. In addition to carrying out the investigation (which will include installing and sampling on-site wells), there is a need to install point of entry treatment systems (POETs) or other alternate water supply (i.e., waterline extension) to address the contaminated water supply wells mentioned above. Also, bottled water must be provided until such time as that system or alternate supply is in place. We understand that, presently, the Town of East Hampton is providing bottled water to the affected residences.

Please contact me within 10 business days to discuss the necessary scope of the investigation and the installation of the POET systems or alternate water supply. Also, please have your attorney contact the DEC Project Attorney, Caryn Bower, to discuss entering into a legal agreement with DEC to carry out the necessary investigation.

Should you be unwilling or unable to conduct the needed study, if the site is determined to be an inactive hazardous waste disposal site and DEC incurs costs to investigate or remediate the site, DEC will seek to recover all such costs from any responsible person.

A brief summary of the information currently available about the site is enclosed for your reference. This information is also available on DEC's environmental remediation database, by using our "Environmental Site Remediation Database Search" tool at: http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3

If you have any questions, please feel free to contact me at 518-402-9625 or eric.obrecht@dec.ny.gov. To discuss the legal agreement required for the investigation of the site, contact Caryn Bower at 518-402-9186.

Sincerely,

Eric R. Obrecht

Eric Obrecht, P.E.
Director, Remedial Bureau A
Division of Environmental Remediation

Enclosure

Ec w/o Enc.: S. Edwards
J. Moras
C. Bower

Environmental Conservation Law

Section 27-1305(2)(a)

"The department shall conduct investigations of the sites listed in the registry and shall investigate areas or sites which it has reason to believe should be included in the registry. The purpose of these investigations shall be to develop the information required by subdivision one of this section to be included in the registry."

COUNTY OF SUFFOLK

STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

JAMES L. TOMARKEN, MD, MPH, MBA, MSW
COMMISSIONER

September 13, 2018

Barbara Deandra
PO Box 273
Wainscott NY 11975

Re: Private Request Number: PR18-0707
Site Location: 65 Wainscott Main Street, Wainscott

Date Sampled: 8/24/18
Survey #: SV0317

Dear Ms. Deandra:

The purpose of this letter is to provide you with analytical results from samples collected at the above site location. As of the date of this letter, we have received the analytical results for a group of parameters called perfluorinated compounds including perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). This analysis of your water supply indicates that, at the time of sampling, the PFOA concentration in the sample was 190.0 parts per trillion (ppt) and PFOS was not detected. These concentrations of PFOS and PFOA exceed the current health advisory level of 70.0 ppt established by the United States Environmental Protection Agency (EPA). Please see the enclosed EPA Fact Sheet and the Suffolk County Department of Health Services Frequently Asked Questions (FAQs) for more information on the health advisory.

Based on your results, we recommend taking action to limit exposure by using an alternative source of water for drinking, preparation of infant formula and food preparation. The Town of East Hampton has offered to provide bottled water to property owners in the Wainscott private well survey area until further notice. Please call (631) 324-4183 to make arrangements to receive bottled water.

More information on PFOS and PFOA can be found at Suffolk County website at www.suffolkcountyny.gov/health/pfcwaterinfo. If you have health related questions related to PFOA and PFOS, please call the New York State Department of Health at (518) 402-7860.

Should you have any general questions concerning your drinking water, feel free to contact Anthony Condos of this office at (631) 852-5810. Please have your Private Request Number available when making inquiries to this office concerning this water sample.

Sincerely,

Douglas J. Feldman, P.E.
Principal Public Health Engineer
Chief, Office of Water Resources

Enclosures
cc: Walter Parish, NYSDEC
Charlotte Bethoney, NYSDOH
Andrew Rapiejko, SCDHS
Jason R. Hime, P.E., SCDHS

♦DIVISION OF ENVIRONMENTAL QUALITY ♦ OFFICE OF WATER RESOURCES ♦ 360 YAPHANK AVENUE, SUITE 1C ♦ YAPHANK NY 11980 ♦
Phone (631) 852-5810 Fax (631) 852-5787

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES - WATER ANALYSIS

Requestor Name: BARBARA DEANDRA
Location: 65 WAINSCOTT MAIN STREET, WAINSCOTT
Sample Location: HAND WELL
Treatment: NONE

Request No.: PR18-0707
Sample Date: 08/24/2018
Sanitarian: KRAKOWSKI
Field No.: 010-847-18-08-24

Survey #: SV0317

Notes: '<' symbol means "less than" indicating no detection. mg/L = milligrams per liter; ug/L = micrograms per liter. Alkalinity is reported as mg/L as CaCO3. '*' symbol means level found exceeds the maximum contaminant level (MCL), or action level for lead and copper. Moderately restricted sodium diet should not exceed 270 mg/L. Severely restricted should not exceed 20 mg/L. The MCL for nickel is a proposed limit. Any MCL's not shown below have not been established.

		Result	MCL				Result	MCL	
===== Results for Sample Group: PERFLUORINATED COMPOUNDS analyzed by Test America Sacramento =====									
PFBS (Perfluorobutanesulfonic Acid)....	<	2.	50000	ng/L	PFOA (Perfluorooctanoic Acid).....	=	190.	50000	ng/L
PFHxs (Perfluorohexanesulfonic Acid)...	<	2.	50000	ng/L	PFOS (Perfluorooctanesulfonic Acid)...	<	2.	50000	ng/L
PFHpA (Perfluoroheptanoic Acid).....	=	41.	50000	ng/L	PFNA (Perfluorononanoic Acid).....	=	19.	50000	ng/L

Wainscott Chapel

APPENDIX F

Table 13 from SCDHS Report dated January 22, 2016

Table 13 – Compost Study Metals Data Comparison to Metals in Suffolk County Private

Parameter	Investigation	# Samples Analyzed	# of Samples with Detection	% Samples with Detection	Maximum Concentration Detected	Overall Mean Concentration#	Mean Concentration of Detected^
Aluminum (ppb)	11 Study Sites*	230	208	90%	25,301	433	478
	Suffolk Shallow Private Wells**	1,196	655	55%	2,580	39	69
Antimony (ppb)	11 Study Sites	233	13	6%	2.1	0.22	0.66
	Suffolk Shallow Private Wells	1,196	1,183	1%	1.1	0.18	0.62
Arsenic (ppb)	11 Study Sites	233	37	16%	64	1.8	8.5
	Suffolk Shallow Private Wells	1,196	35	3%	7	0.55	2.1
Barium (ppb)	11 Study Sites	232	232	100%	872	92	92
	Suffolk Shallow Private Wells	1,196	1,166	97%	243	36	37
Beryllium (ppb)	11 Study Sites	233	26	11%	2.4	0.23	0.72
	Suffolk Shallow Private Wells	1,196	26	2%	1	0.15	0.5
Cadmium (ppb)	11 Study Sites	232	2	0.9%	3	0.52	2.5
	Suffolk Shallow Private Wells	1,196	9	0.8%	6	0.51	1.9
Calcium (ppm)	11 Study Sites	232	232	100%	140	17	17
	Suffolk Shallow Private Wells	1,197	1,187	99%	127	14	14
Chromium (ppb)	11 Study Sites	232	145	63%	38	2.2	3.2
	Suffolk Shallow Private Wells	1,196	216	18%	10	0.7	1.5
Cobalt (ppb)	11 Study Sites	232	100	43%	81	3.5	7.5
	Suffolk Shallow Private Wells	1,196	39	3%	25	0.62	4.1
Copper (ppb)	11 Study Sites	232	84	36%	46	2.3	5.3
	Suffolk Shallow Private Wells	1,196	1,160	97%	2,727	127	132
Germanium (ppb)	11 Study Sites	230	33	14%	3	0.6	1.4
	Suffolk Shallow Private Wells	1,195	8	0.67%	2	0.4	1.0
Iron (ppm)	10 VOWM Sites	232	88	38%	81	3.3	8.5
	Suffolk Shallow Private Wells	1,197	383	32%	33	0.3	0.9
Lead (ppb)	11 Study Sites	233	21	9%	46	1.3	9.4
	Suffolk Shallow Private Wells	1,196	620	52%	488	5.2	9.6
Magnesium (ppm)	11 Study Sites	232	231	100%	461	6.7	6.7
	Suffolk Shallow Private Wells	1,197	1,175	98%	212	5.0	5.1
Manganese (ppb)	11 Study Sites	232	221	95%	49,300	1,618	1,698
	Suffolk Shallow Private Wells	1,196	1,093	91%	7,000	102	112
Molybdenum (ppb)	11 Study Sites	233	29	12%	10	0.83	3.1
	Suffolk Shallow Private Wells	1,196	8	0.67%	17	0.5	3.3
Nickel (ppb)	11 Study Sites	232	210	91%	26	3.1	3.4
	Suffolk Shallow Private Wells	1,196	853	71%	57	1.4	1.9
Potassium (ppm)	11 Study Sites	232	232	100%	97	9.2	9.2
	Suffolk Shallow Private Wells	1,197	1,190	99%	53	2.6	2.6
Sodium (ppm)	11 Study Sites	232	229	99%	236	20	20
	Suffolk Shallow Private Wells	1,197	1,196	100%	1,360	22	22
Strontium (ppb)	11 Study Sites	232	231	100%	635	79	79
	Suffolk Shallow Private Wells	1,196	1,174	98%	1,030	68	69
Thallium (ppb)	11 Study Sites	232	38	16%	2.9	0.26	0.79
	Suffolk Shallow Private Wells	1,196	13	1%	0.62	0.1	0.4
Titanium (ppb)	11 Study Sites	230	108	47%	708	14	30
	Suffolk Shallow Private Wells	1,196	28	2%	20	0.6	3
Vanadium (ppb)	11 Study Sites	233	32	14%	65	1.7	9.3
	Suffolk Shallow Private Wells	1,196	27	2%	10	0.6	2.9
Zinc (ppb)	11 Study Sites	230	26	11%	1,320	34	108
	Suffolk Shallow Private Wells	1,195	560	47%	5,400	114	217

* Note that these statistics include data from all wells and profile levels included in the study, even those exhibiting little or no water quality degradation.

** Untreated water quality data from private wells collected by the SCDHS from January 2010 – June 2014.

\# One half the detection limit was used in the calculation of the mean for samples that had concentrations reported as not detected.

^ This is the mean concentration of only the samples that had concentrations above their respective detection limits.

APPENDIX G

Data Validation Summary

ALPHA GEOSCIENCE

Geology

Hydrology

Remediation

Water Supply

Data Usability Summary Report for
Pace Analytical Services, Inc.-New York
SDG No.: 7056430

8 Ground Water Samples
Collected June 26 and 27, 2018

Prepared by: Donald Anné
October 26, 2018

The data packages contain the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results for 8 ground water samples analyzed for perfluorinated alkyl substances (PFAS) method 537 (modified), 1,4-dioxane, metals, hardness, fluoride, sulfate, color, chloride, alkalinity, hexavalent chromium, nitrate as N, nitrate-nitrite as N, nitrite as N, and total dissolved solids (TDS).

The overall performances of the analyses are acceptable. Pace Analytical Services, Inc.- New York and Pittsburg, TestAmerica Buffalo (subcontracted 1,4-dioxane data), and TestAmerica Sacramento (subcontracted PFAS data) did fulfill the requirements of the analytical methods.

The data are mostly acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The positive TDS results were qualified as "estimated" (J) for all 8 ground water samples because the samples were analyzed beyond the NYSDEC ASP holding time.

- The positive alkalinity results were qualified as "estimated, biased low" (J-) for all 8 ground water samples because 2 of 2 percent recoveries for total alkalinity were below QC limits, but not below 30% in the associated aqueous batch MS/MSD sample.

- The positive PFAS result for PFUnA was qualified as "estimated, biased high" (J+) for sample MW-6 DL because the internal standard was below control limits.

- The positive PFAS results for PFBS, PFBA, and PFPeA were qualified as "estimated, biased high" (J+) for sample MW-8 because the percent recoveries for the surrogate associated with these PFAS were below QC limits, but not below 10% for sample MW-8.

- The “not detected” PFAS results for FOSA and PFTeA were qualified as “estimated” (UJ) for sample MW-8 because the percent recoveries for the surrogate associated with these PFAS were below QC limits, but not below 10% for sample MW-8.

All data are considered usable with estimated (J+, J, or UJ) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

ALPHA GEOSCIENCE

Geology

Hydrology

Remediation

Water Supply

QA/QC Review of Dissolved Metals and Hardness Data for Pace Analytical Services, Inc.-New York SDG No.: 7056430

8 Ground Water Samples Collected June 26 and 27, 2018

Prepared by: Donald Anné
October 26, 2018

Holding Times: Samples were analyzed within NYSDEC ASP holding times.

Initial and Continuing Calibration Verification: The percent recoveries for target metals were within control limits (90-110% for all metals).

CRDL Standard for AA and ICP: The percent recoveries for target metals were within laboratory QC limits (70-130%) for CRDL check standards..

Blanks: The analyses for the method blanks reported target metals as not detected.

Interference Check Sample: The percent recoveries for applicable metals were within control limits (80-120%) for the interference check samples.

Spike Sample Recovery: The percent recoveries for target metals were within control limits (75-125%) for aqueous batch spike samples 7056428001 and 7056677001.

Duplicates: The realtive percent differences for applicable metals and hardness were below the allowable maximum (20%) in aqueous batch duplicate samples 336983DUP and 338599DUP, as required

Laboratory Control Sample: The percent recoveries for target metals were within control limits (85-115%) for aqueous samples 336982LCS and 338597LCS.

Serial Dilution: The %Ds for applicable metals were below the allowable maximum (10%) for aqueous batch serial dilution samples 336987SD and 338598SD, as required.

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QA/QC Review of Method 537 (Modified) PFAS Data
for Pace Analytical Services, Inc.-New York
SDG No.: 7056430
(Subcontrated toTestAmerica Sacramento, Job No: 480-138255-1)

8 Ground Water Samples
Collected June 26 and 27, 2018

Prepared by: Donald Anné
October 26, 2018

Holding Times: Samples were analyzed within USEPA holding times.

Initial Calibration: The %RSDs for applicable PFASs were below the method maximums, as required.

Continuing Calibration: The %Ds for applicable PFASs were below the allowable maximums, as required

Blanks: Method blank MB 320-232920/1-A contained a trace of PFHxS (0.277 ng/L). Positive results for these compounds that are less than five times the highest blank level should be reported as not detected (U) in associated samples

Internal Standard Area Summary: The internal standard area retention times were within control limits.

The internal standard area for sample MW-6 DL was below QC limits. Positive results for sample MW-6 DL should be estimated, biased high (J+) and "not detected" results estimated (UJ).

Surrogate Recovery: Five of eighteen surrogate recoveries for sample MW-8 were below QC limits, but not below 10%. Positive results for compounds associated with these surrogates should be considered estimated, biased high (J+) and "not detected" results estimated (UJ) in sample MW-8.

One of eighteen surrogate recoveries for sample MW-1 was above QC limits. Positive results for compounds associated with this surrogate should be considered estimated, biased low (J-) in sample MW-1.

Laboratory Control Sample: The relative percent differences were below the allowable maximum and the percent recoveries for spiked compounds were within QC limits for aqueous samples LCS 320-232920/2-A and LCSD 320-232920/3-A.

Compound ID: Checked compounds and surrogates were within LC quantitation limits.

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QA/QC Review of Method 8270D SIM 1,4-Dioxane
Data for Pace Analytical Services, Inc.-New York
SDG No.: 7056430
(Subcontrated to TestAmerica Buffalo, Job No: 480-138255-1)

8 Ground Water Samples
Collected June 26 and 27, 2018

Prepared by: Donald Anné
October 26, 2018

Holding Times: Samples were analyzed within NYSDEC ASP holding times.

GC/MS Tuning and Mass Calibration: The DFTPP tuning criteria were within control limits.

Initial Calibration: The average RRFs for 1,4-dioxane were above the allowable minimum (0.010) and r squared was above the allowable minimum (0.9900), as required.

Continuing Calibration: The RRFs for 1,4-dioxane were above the allowable minimum (0.010) and the %Ds were below the allowable maximum (25%), as required.

Blanks: The analysis of the method blank reported 1,4-dioxane as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples.

Laboratory Control Sample: The relative percent difference for 1,4-dioxane was below the allowable maximum and the percent recoveries for 1,4-dioxane were within QC limits for aqueous samples LCS 480-422634/2-A and LCSD 480-422634/3-A.

Compound ID: Checked surrogates were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

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QA/QC Review of General Chemistries Data*
for Pace Analytical Services, Inc.-New York
SDG No.: 7056430

8 Ground Water Samples
Collected June 26 and 27, 2018

Prepared by: Donald Anné
October 26, 2018

Holding Times: Samples were analyzed were within NYSDEC ASP holding times.

Initial and Continuing Calibration Verification: The percent recoveries for target analytes were within QC limits (90-110%).

CRDL Standard for AA and ICP: The applicable percent recoveries for target analyes were within laboratory QC limits (70-130% for all except chloride, 50-150% for chloride) for CRDL check standards.

Blanks: The analyses for the method blanks reported target analytes as not detected.

Spike Sample Recovery: The applicable percent recoveries for target analytes were within QC limits (75-125%) for aqueous spike samples MW-3 and MW-4, and aqueous batch spike samples 7056367001, 7056400001, 7056475001, and 7054599021.

Duplicates: The relative percent differences for applicable analytes were below the allowable maximum (20%) in aqueous duplicate sample MW-3, and aqueous batch duplicate samples 336352DUP 336354DUP, 337315DUP, and 336422DUP, as required

Laboratory Control Sample: The percent recoveries for target analytes were QC limits (90-110%) for aqueous samples 336280LCS, 336350LCS, 336410LCS, 336441LCS, 337313LCS, and 337319LCS.

* General chemistries target analytes include color, chloride, hexavalent chromium, nitrate as N, nitrate-nitrite as N, and nitrite as N.

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QA/QC Review of Fluoride and Sulfate Data by Ion Chromatography for Pace Analytical Services, Inc.-New York
SDG No.: 7056430

8 Ground Water Samples
Collected June 26 and 27, 2018

Prepared by: Donald Anné
October 26, 2018

Holding Times: Samples were analyzed within the NYSDEC ASP holding times.

Initial and Continuing Calibration Verification: The percent recoveries for fluoride and sulfate were within QC limits (90-110%).

CRDL Standard for AA and ICP: The percent recoveries for fluoride and sulfate were within laboratory QC limits (70-130%) for CRDL check standards.

Blanks: The analyses for the method blanks reported fluoride and sulfate as not detected.

Spike Sample Recovery: The percent recoveries for fluoride and sulfate were within QC limits (75-125%) for aqueous spike sample MW-2.

Duplicates: The relative percent differences for sulfate was below the allowable maximum (20%) in aqueous duplicate sample MW-2, as required

Laboratory Control Sample: The percent recoveries for fluoride and sulfate were QC limits (85-115%) for aqueous sample 338675LCS.

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QA/QC Review of Total Alkalinity Data
for Pace Analytical Services, Inc.-New York
SDG No.: 7056430
(Subcontrated to Pace-Pittsburg, SDG: 30258047)

8 Ground Water Samples
Collected June 26 and 27, 2018

Prepared by: Donald Anné
October 26, 2018

Holding Times: Samples were analyzed within the NYSDEC ASP holding time.

Initial and Continuing Calibration Verification: The percent recoveries for total alkalinity were within QC limits (98.5-101.4%).

Blanks: The analysis for the method blank reported total alkalinity as not detected.

Spike Sample Recovery: The percent recoveries for total alkalinity were below QC limits (85-115%), but not below 30% for aqueous batch MS/MSD sample 7056132015. Positive results for total alkalinity should be considered estimated, biased low (J-) and "not detected" results estimated (UJ) in associated aqueous samples.

Duplicates: The relative percent difference for total alkalinity was below the allowable maximum (20%) in aqueous batch MS/MSD sample 7056132015, as required

Laboratory Control Sample: The percent recovery for total alkalinity was within QC limits (85-115%) for aqueous sample 1490851LCS.

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QA/QC Review of Total Dissolved Solids (TDS)
Data for Pace Analytical Services, Inc.-New York
SDG No.: 7056430

8 Ground Water Samples
Collected June 26 and 27, 2018

Prepared by: Donald Anné
October 26, 2018

Holding Times: All 8 samples were analyzed beyond the NYSDEC ASP holding time. Positive results for TDS should be considered estimated (J) in all 8 samples.

Blanks: The analyses for the method blanks reported TDS as not detected.

Spike Sample Recovery: The percent recovery for TDS was within QC limits (75-125%) for aqueous spike sample MW-5.

Duplicates: The relative percent difference for TDS was below the allowable maximum (20%) in aqueous duplicate sample MW-5, as required

Laboratory Control Sample: The percent recoveries for TDS were QC limits (85-115%) for aqueous samples 338426LCS and 338432LCS.

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound

TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Polyfluorinated Alkyl Substances (PFAS) Acronyms

PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluoroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTriA	Perfluorotridecanoic acid
PFTeA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid
PFPeS	Perfluoropentanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFHpS	Perfluoroheptanesulfonic acid
PFOS	Perfluorooctanesulfonic acid
PFNS	Perfluorononanesulfonic acid
PFDS	Perfluorodecanesulfonic acid
FOSA	Perfluorooctane Sulfonamide
NMeFOSAA	N-methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-ethyl perfluorooctane sulfonamidoacetic acid
4:2 FTS or 4:2	1H, 1H, 2H, 2H-perfluorohexanesulfonic acid
6:2 FTS or 6:2	1H, 1H, 2H, 2H-perfluorooctanesulfonic acid
8:2 FTS or 8:2	1H, 1H, 2H, 2H-perfluorodecanesulfonic acid

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high andassociated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

APPENDIX D-3

ALPHA ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT OF THE WAINSCOTT COMMERCIAL CENTER EAST HAMPTON, NEW YORK

Prepared for

Wainscott Commercial Center LLC
P.O. Box 1259
Wainscott, New York 11975

January 2019

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Water Supply

ENVIRONMENTAL ASSESSMENT OF THE WAINSCOTT COMMERCIAL CENTER EAST HAMPTON, NEW YORK

Prepared for

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January 2019

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Appendix B: Hydrogeologic Assessment of the Wainscott Commercial Center, East Hampton, New York, November 2018

Appendix C: Letter from Dr. James L. Tomarken of Suffolk County Department of Health Services

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Appendix H: Soil Data Validation Report, December 6 and 7, 2018 Soil Sampling

Appendix I: Town and County Critical Environmental Areas

Appendix J: Photographs of the use of Fire Suppressant Foam from AECOM (2018) Report (Appendix A)

Appendix K: Affidavit of James J. McCaffrey, Jr., December 27, 2018

Appendix L: Bridgehampton and East Hampton Fire District Responses to Information Requests

1.0 INTRODUCTION

This report provides an environmental assessment of the Wainscott Commercial Center (WCC) site in East Hampton, New York. The site is an approximate 70-acre parcel located between the Long Island Railroad (LIRR) on the north, Montauk Highway (New York Route 27) on the south, Hedges Lane on the east, and Wainscott Northwest Road on the west (Figure 1). The property is mostly open land with a few commercial and industrial facilities concentrated at the southern end of the property. The land use to the west, south, and east of the site is residential, and land beyond the LIRR to the north is occupied by the East Hampton Airport and East Hampton Industrial Park, which is located on both sides of Industrial Road (Figure 1).

The site owner, Wainscott Commercial Center LLC (WCC LLC) is proposing to develop the site for multi-use commercial and industrial tenants. The Town of East Hampton (Town) has raised concerns that ground water in the Town and also the surface water in Georgica Pond may already be impacted by conditions at the site, or could become impacted if the site is developed. Alpha Geological Services, D.P.C. (Alpha Geoscience, d.b.a.) (Alpha) was asked by WCC LLC to address these Town concerns. The concerns were addressed by Alpha primarily through a review of site history, a summary of regional environmental concerns, and an investigation of both the ground water beneath the site and the site soils.

2.0 METHODS OF ASSESSMENT

The objectives of this assessment were met by:

- Developing an understanding of the site history and important environmental concerns for the area by reviewing publicly available information from State, County, and Town documents and reviewing site information provided by WCC LCC;
- Conducting a hydrogeologic investigation that included the installation of monitoring wells that were used to determine the quality of the ground water, the source of ground water recharge, and the direction of ground water flow;

- Assessing whether the site has adversely impacted the existing ground water beneath the site and surrounding area, and assessing whether the site has impacted Georgica Pond;
- Utilizing the results of the historical review and the hydrogeological investigation to design and implement a soil investigation; and
- Analyzing the results of the hydrogeologic and soil investigations to assess the potential for impacts to the local ground water resources and Georgica Pond from the development of the WCC.

3.0 HISTORICAL BACKGROUND

3.1 Site History

The site was a sand and gravel mine when the WCC LCC owners purchased the property in 1984. According to information provided by WCC LCC (see List of Uses and Tenants at the WCC in Appendix A), the New York State mining permit ended in July of 1998 when the New York State Department of Environmental Conservation (NYSDEC) approved the final reclamation of the site and released the financial reclamation surety bond. The site was already in use by various commercial and industrial clients by 1998 as indicated by the list of prior uses and tenants in Appendix A. These tenants were located primarily at the southern end of the site, as they are now (Figure 1).

The owners of WCC initiated a proposal to subdivide the WCC site into 25 building lots around 1999. As part of that proposal, the Town, which was acting as the lead agency, identified ground water and Georgica Pond as significant resources that could be adversely impacted. The WCC owners conducted an initial investigation in 1999 and 2000 that included the drilling of eight soil borings, installing monitoring wells in those soil borings, collecting and analyzing water samples from those wells, and measuring the depth and elevation of the water table. The samples were tested at an analytical laboratory for general drinking water standards, total petroleum hydrocarbons, chlorinated herbicides, and organophosphorus pesticides. The results of this testing and an interpretation of the direction of ground water flow are provided and discussed in the hydrogeology investigation report provided in Appendix B. The results showed that ground water flow was from the northwest to the southeast across the site, and the ground water did not contain any herbicides,

pesticides, or hydrocarbon-related volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). The metals, iron and manganese, were found to be above New York State DOH drinking water standards at some locations.

WCC LLC asked Alpha to undertake this current environmental assessment of the site in 2017. During the course of this assessment, the Town of East Hampton Planning Department (the Town) submitted as Environmental Assessment Form (EAF) on September 5, 2018 (Shantz, 2018). The Town's EAF identified environmental concerns that included the potential for the construction of water supply wells in locations where ground water is, or is suspected to be, contaminated. The Town specifically raised concerns for excess levels of metals that were detected in ground water at a nearby sand and gravel mine and the presence of perfluorooctane sulfonate (PFOS) and perfluorooctanic acid (PFOA) discovered in numerous private wells in the area of the WCC. The Planning Board stated (Shantz, 2018) that it, *"feels that without substantial testing of soil and groundwater for a comprehensive list of potential contaminants it cannot be said that the proposed project will not present a significant adverse impact to human health or to groundwater. The existing/ongoing conditions of private well contamination in this area make it all the more important to prevent further damage which could also affect neighboring wells and Georgica Pond through groundwater travel and/or storm water run-off."*

3.2 Environmental Concerns

The historical use of the site provides an indication of potential contaminants that might be in the soil and ground water. The use of the site for mining is not a source of contamination. The subsequent tenants, which have been concentrated in the southern end of the site, raise the potential for the presence of hydrocarbons, such as diesel or other petroleum compounds that could be related to the diesel repair shop or heating systems, pesticides and nitrates related to landscaping operations, and other VOCs that might be related to the furniture repair business. The locations of these tenant-related activities are identified on Figure 2. All of the tenants utilize individual septic systems that could contribute nitrates to ground water.

Concerns for potential contamination of ground water, in the general areas within which the site lies, have been raised by the local community for hexavalent chromium, 1,4-dioxane, and per- and

polyfluoroalkyl substances (PFAS). These contaminants are known to have potential health effects if consumed. The attention given to hexavalent chromium and 1,4- dioxane is unrelated to any specific occurrence in the area; however, hexavalent chromium was pointed out as a potential pollutant at the site by a local citizen who identified a ready mix plant at the site as a potential source (see letter from Dr. James L. Tomarken of Suffolk County Department of Health Services (SCDHS) that is provided in Appendix C).

The PFAS concerns are directly associated with the occurrence of two PFAS; PFOS (perfluorooctane sulfonate) and PFOS (perfluorooctanoic acid), for which the United States Environmental Protection Agency (USEPA) has issued a health advisory level (HAL) of 0.07 parts per billion (ppb). The SCDHS initiated a private well survey in October 2017 for that portion of the Hamlet of Wainscott that is south of the East Hampton Airport and that surrounds the WCC site on the east, south, and west (Appendix D).The SCDHS announced an expansion of the residential well assessment area in May 2018 due to the detection of PFOS and PFOA in several residential wells (Appendix D).

According to the SCDHS water quality advisory issued on May 25, 2018 (Appendix D), *"PFAS have been used in a number of industrial and commercial products such as firefighting foam, as well as coatings that repel water, oil, stain and grease."* The October 2017 water quality advisory from the SCDHS (Appendix D) indicates that the airport had used or stored products that may have contained PFOS and PFOA; consequently, the airport is considered a potential source area. It was also reported in a local newspaper that a fire training exercise was conducted at the WCC site in June 2000 and that fire suppressant foam may have been used in that drill (Wright, 2018). An analysis to determine the exact location of the drill and research into whether that drill actually involved the use of fire suppressant foam is discussed in subsequent sections of this report.

4.0 RESULTS

A hydrogeologic/ground water investigation was conducted first, followed by a soil investigation. The hydrogeologic investigation included assessing the results of the earlier investigation conducted in 1999-2000 and the latter investigation conducted in late spring of 2018. The soil investigation was completed in December 2018.

4.1 Hydrogeologic Investigation

The primary objectives and the results of the hydrogeologic investigation are provided in Appendix B; consequently, there is no need to discuss these items here other than to repeat the key conclusions and provide any additional information gathered and analyzed since that report was finalized in November 2018. The most significant conclusions from that report are:

- Ground water flows beneath the site from the northwest toward the southeast.
- The ground water beneath the site is contained in a water table aquifer that is recharged by direct precipitation to the land surface at the site and also from direct precipitation to properties to the northwest of the site that include residential areas and the East Hampton Airport.
- The natural discharge zone for ground water flowing beneath the site is Georgica Pond.
- The ground water flow rate across the site is relatively rapid at an estimated velocity of 335 feet per year.
- The ground water quality beneath the site was found to be relatively clean with no detections of herbicides, pesticides, hydrocarbons related VOCs and SVOCs, hexavalent chromium, and 1,4-dioxane.
- Although most of the metals that were targeted for laboratory analysis were either not detected or were below the New York State Department of Health (NYSDOH) Part 5 drinking water standards, the water did contain levels of manganese and iron at concentrations above those standards; however, the standards for these two metals were established for aesthetic reasons (i.e. staining of household fixtures) and not for health reasons.
- Nitrates were detected in all of the wells at levels well below the New York State drinking water limit of 10 milligrams per liter (mg/L); consequently, the site is not a source of the nutrients entering Georgica Pond.
- PFAS were discovered in the ground water at levels for PFOA and PFOS that exceeded EPA health advisory levels (HALs) for these compounds. The appearance of these PFAS throughout the site with high levels on both the upgradient and downgradient sides of the site suggests a source off site to the northwest; however, an investigation of site soils for PFAS

was warranted and undertaken subsequent to the completion of the hydrogeologic report in order to evaluate the site of a fire training exercise.

The only additional hydrogeologic data that was collected after completion of the hydrogeologic report in November 2018 was a round of water level measurements on December 7, 2018. These measurements are included on Table 1 along with the previous three rounds of measurements.

The water level elevation data for all four dates of measurements are plotted on hydrographs provided on Figure 3. Other than the unusual spike in MW-1 on June 26, the data show a small decline through the summer and a rebound in December. The December water levels are generally higher than the previous measurements and reflect the unusually high amounts of rainfall that occurred in the area during November 2018 when 9.56 inches fell at the nearest National Oceanic and Atmospheric Administration (NOAA) weather station. The November rainfall was more than twice the normal average of 4.37 inches. The average (normal) monthly precipitation data and monthly precipitation data for Bridgehampton, NY are provided on Table 2.

An analysis of the depth to water below the land surface, when ground water was at its highest observed elevation on December 7, 2018, was conducted by comparing a water table contour map with the surface topography. Hydrographs showing that the water levels were at their highest level at the site in December of 2018 are provided on Figure 3. The water table contours were placed on the site topographic map and provided herein as Plate 1. The site topographic map was generated by Fox Land Surveying (Fox) of Westhampton Beach, New York. A copy of the map by Fox is included in Appendix D of the hydrogeologic report (see Appendix B herein). The resulting map of the depth to water is provided as Plate 2.

4.2 Soil Investigation

4.2.1 Purpose of the Soil Investigation

A soil investigation was conducted on December 6 and 7, 2018. The work plan for this soil investigation was developed based on the results of the hydrogeologic investigation, the historical locations of tenants at the site, and the historical use of the site for a fire training exercise.

The hydrogeologic investigation results indicate that there is no ground water contamination from hexavalent chromium, 1,4-dioxane, herbicides, pesticides, and nitrates; consequently, none of these contaminants were targeted during the soil investigation. Hydrocarbon compounds were also not detected at the site during the 1999/2000 ground water investigation; however, the presence of a diesel engine repair shop at the site of a former furniture repair business (Figure 2) led to a decision to conduct a focused drilling and sampling program in that area and also to screen soil samples throughout the site for VOCs.

Concentrations of iron and manganese were found in the ground water at levels above the New York State drinking water standards of 0.3 mg/L for each of these metals in both 1999 and 2018 (see Tables 3 and 5 and Figures 10 and 11 in Appendix B). These elevated metals were detected on both the upgradient and downgradient sides of the site in 1999 and primarily on the downgradient side in 2018. Although the iron at the site was close to the averages and within the range of concentrations typically found in Suffolk County Water Supply wells (see Table in Appendix F of Appendix B herein), the manganese concentrations in ground water at the site were slightly higher than the average and the maximums typical for water supply wells in the county. The hydrogeologic investigation results (Appendix B) indicate that at least some, and possibly all, of the elevated iron and manganese is coming from offsite sources upgradient from the site. Regardless, a sampling plan was developed to assess whether the site soils are a potential source. The hydrogeologic results did not identify a particular area of the site; consequently, testing of metals in the soil was conducted throughout the entire site.

The PFAS ground water testing results (Appendix B) indicated the presence of PFOS and PFOA throughout the site, but the results also demonstrated that high concentrations are present on both the upgradient and downgradient sides of the site (see Figure 9 in Appendix B). These results indicate the presence of an upgradient source, but do not rule out a contributing source at the site.

An anecdotal reference to the alleged use of fire suppressant foam was included with the photographs contained in a Southampton Press article authored by Michael Wright in March 2018. The article contains three pictures with captions indicating the use of fire retardant (also fire suppressant) foam during a plane-crash training exercise at the Wainscott gravel pit in June 2000.

An analysis of the three ground-based photographs from Mr. Wright's newspaper article along with an air photograph from Google Earth (see photographs in Appendix E) shows the interpreted location of the bus that was the target of the fire training exercise. The location is interpreted based on the position of the bus against the site perimeter embankment, the presence of a dark-toned material pile behind the green fire truck (E-1) that is present to the east of the location on the air photograph (E-4), and the presence of a tree extending out over the perimeter slope near the bus (E-2) that is near the interpreted location on E-4. This general area, which is outlined on Figure 2, was targeted for testing of PFAS in soil.

4.2.2 Soil Sampling Program

A total of nineteen (19) soil borings were drilled at the site using a Power Probe 9100 direct push drilling rig on December 6 and 7, 2018. The approximate locations of these holes are provided on Figure 4. The locations were estimated in the field using a hand-held global positioning system (GPS) instrument. The soil materials encountered at each location were logged by a licensed Professional Geologist from Alpha (see geologic logs in Appendix F). Each soil sample collected from the direct push boreholes was visually inspected for contamination, checked for odors from VOCs, and screened for the presence of VOCs using a photoionization detector (PID). A log of the PID readings is provided in Appendix G. Samples were collected from each soil boring and placed in sample containers provided by Con-Test Analytical Laboratory of East Longmeadow, MA. Each sample container was placed with ice in a laboratory-supplied cooler, along with the chain of custody, and submitted to Con-Test for analysis. Additional details of the soil sampling program are provided as follows:

- Samples (grab samples) for metals analysis were selected from soil brought to the surface at each soil boring. The grab samples were taken from depths ranging from 0.5 feet to 2.0 feet below the ground surface. Each sample was submitted to Con-Test for the following Resource Conservation and Recovery Act (RCRA) – 8 metals plus iron and manganese:
    - Arsenic
    - Barium
    - Cadmium
    - Chromium

- Iron
- Lead
- Manganese
- Mercury
- Selenium
- Silver

- All of the samples brought to the surface were evaluated by screening for olfactory (odor), visual, and PID responses for VOCs; however, no VOCs were detected above background (see Appendices F and G; consequently, the only samples selected for laboratory analysis of petroleum-related VOCs and SVOCs were from the soil borings near the current diesel maintenance facility (SB-17, SB-18, and SB-19) (Figure 4). These samples were submitted to Con-Test for analysis following the New York State Department of Environmental Conservation soil cleanup policy (Commissioner's Policy, CP-51) using analytical Method 8260 VOCs and Method 8270 SVOCs. These samples were collected from depths ranging from 6 to 8 feet below the ground surface.
- Sampling for PFAS was conducted from depths of 0 – 0.5 feet at locations adjacent to soil borings SB-1, SB-2, and SB-3. These locations were from undisturbed ground approximately one (1) foot from the respective soil boring; consequently, they are assigned the same name and location as the soil boring. Sampling was conducted by the Alpha geologist using separate stainless steel trowels for each location. Each trowel was washed prior to use using deionized (DI) water purchased from CVS pharmacy on December 5, 2018. The DI water was submitted to Con-Test for analysis of PFAS, and did not contain PFAS. The sampling was conducted using gloves supplied for the PFAS sampling by Con-Test, and the field geologist avoided handling substances or articles that could contain PFAS during preparation and conducting the sampling. The sample containers provided by Con-Test were filled, placed in the Con-Test-supplied cooler with ice, and submitted to the laboratory along with the chain of custody.

4.2.3 Soil Sampling Results

4.2.3.1 Site Soils

The soil boring logs (Appendix F) confirm the results of the hydrogeologic investigation (Appendix B) that indicate that the site soils consist of fill above the fine to coarse sands of the Upper Glacial Aquifer. The fill is predominantly a fine to coarse sand and trace gravel. Four of the nineteen soil borings encountered a small quantity of anthropogenic (man-made) fill material; such as brick, cement, concrete, and wood chips; that were within the predominantly fine to coarse sand fill.

4.2.3.2 Soil Sample Analytical Results

The soil analytical results were non-detect for VOCs and SVOCs (Table 3). These results are consistent with the visual, olfactory, and PID readings (Appendix G) that also did not identify the presence of VOCs. These results are also consistent with ground water sampling results from the 1999 investigation.

The laboratory results for the RCRA-8 metals and manganese were all below the NYSDEC unrestricted use soil cleanup objectives (SCO) (Table 4); consequently, these metals do not pose an environmental threat. There is no NYSDEC SCO for iron, which is not an environmental threat. Regardless, the NYSDEC conducted a survey of iron concentrations in New York as part of the NYSDEC's establishment of SCOs (NYSDEC, 2006). Appendix D of the NYSDEC (2006) SCO document provides maps of iron concentrations found in "Source-Distant " areas, which are at least 15 meters from a potential pollution source and "Habitat areas" that are at least 15 meters from areas of regular human activity. The concentrations of iron in the soils at the site are at the lower end of the typical concentrations mapped by the NYSDEC throughout rural Upstate New York; consequently, Alpha considers these results to represent background concentrations.

The PFAS results for the soils are provided on Table 5 for soil borings SB-1, SB-2, and SB-3. The laboratory results indicate that no PFOA or PFOS was detected. Only very low concentrations of two PFAS; PFTrDA in SB-1 and SB-2, and PFUnA in SB-1, 2, and 3; were encountered. These two PFAS do not have an EPA HAL and are unregulated. The soil sampling results for PFAS were validated by Alpha's chemist to assess the data usability (Appendix H). All of the laboratory analytical data for PFAS were found to be usable.

5.0 DISCUSSION OF RESULTS

The ultimate goals of this assessment were to identify current site impacts on the water resources followed by an evaluation of potential impacts to those resources when the site is fully developed. These assessments require knowledge of current physical conditions (geology, hydrogeology, ground water quality and soil quality) in order to determine if pollutants exist at the site in the soil and ground water, to determine the potential sources of these pollutants and determine what water resources (receptors) could be affected if pollutants exist and are moving along with the ground water. The assessment also assesses the relative potential that the proposed development and use of the site could result in impacts to the receptors beyond whatever currently may be occurring. The current environmental impacts are addressed first followed by future potential impacts.

5.1 Assessment of Current Environmental Impacts

This discussion is subdivided into the physical hydrogeologic conditions for the site and surrounding area; onsite soil and ground water quality and likely sources of ground water contaminants; and current impacts of the site on water resources.

5.1.1 Current Physical Site Conditions

The site lies in a depression relative to the surrounding area as the result of it being a former sand and gravel mine. Only a small portion in the southeast corner is relatively level and close to the elevation of the adjacent properties. The surface of the bottom of the depression is moderately level with the exception of scattered piles of fill materials sitting on the relatively level surface. These topographic characteristics are evident on the topographic map generated by Fox Land Surveying of West Hampton Beach that has been included as the base in Plate 1 and also is provided in the Hydrogeologic Report in Appendix B.

The relatively level floor of the site and the scattered piles consist of fill brought to the site and graded (leveled) throughout most of the site on behalf of the owner of WCC LLC. The soil at the site consists of fine to coarse sand fill with trace gravel that overlies similar geologic material at depth. The fill sand contains small quantities of anthropogenic (human made) material.

Runoff from storm events is mostly retained on site by virtue of the fact that the site is lower than the surrounding properties. There may be a small quantity of runoff leaving the site in the southeast corner, near Montauk highway, but that is a very low percentage of the site storm water runoff. The runoff retained on site is either evaporated, transpirated (drawn up by vegetation and transpired) or is percolated to the water table.

The water table beneath the site lies between 3.0 to more than 10.0 feet below the land surface (Plate 2). Since Plate 2 is based on the water table (Plate 1) that was affected by abnormally high recharge during the month of November 2018, it is Alpha's interpretation that the water table on December 7, 2018 was close to its seasonal high level. The interpretation that water table was close to a seasonal high is further supported by the fact that rainfall was also significantly higher than normal in September and October. The data provided on Table 2 and Figure 5 show that September rainfall was 0.95 inches above normal, October was 2.18 inches above normal, and November was 5.19 inches above normal. The months of October and November are also times of the year when evaporation and transpiration are low due to a low sun angle and dormant vegetation.

Ground water flow beneath the site is from the northwest to the southeast. This was the situation in December 2018 (Plate 1) and also during all of the other dates of measurement by Alpha (see Hydrogeology Report in Appendix B). This direction of ground water flow is consistent with an interpretation of the flow direction in the region by the U.S. Geological Survey (USGS) (Monti et al, 2013) and the flow direction at the East Hampton Airport determined by AECOM (2018). The water table is an unconfined aquifer that receives its recharge from direct precipitation and from surface water runoff that collects on the land surface at the site. Recharge occurs at the site and from areas up the hydraulic gradient (upgradient) to the northwest. This upgradient recharge area includes portions of the East Hampton Airport and the East Hampton Town Industrial Park (Figure 6).

Ground water flows down the hydraulic gradient (downgradient) to the southeast toward its natural recharge area at Georgica Pond (Figure 6). Ground water, which passes beneath the site as it flows to Georgica Pond, passes under approximately six residences southeast and downgradient of the site.

Alpha's research shows that the site is located south of, and not within, both the recharge Overlay District Critical Environmental Area (CEA) as designated by the Town and the Special Groundwater

Protection Area (South Fork) CEA as designated by Suffolk County (see Figures I-1 and I-2 in Appendix I). Portions of these CEAs are located downgradient from the site along the east side of the site.

5.1.2 Current Quality of the Site Ground Water and Soil

The ground water beneath the site met NYSDOH Part-5 drinking water standards with the exception of iron and manganese. The ground water also contained PFOA and PFOS at levels above their EPA HALs of 70 parts per trillion (ppt). All of the rest of the metals and compounds of concern; which included petroleum-related VOCs and SVOCs, metals, nonmetals (ammonia, nitrates, and chloride), emergent contaminants (hexavalent chromium and 1,4-dioxane), chlorinated herbicides, and organophosphorus pesticides; were all within drinking water standards.

The site soils were also evaluated for VOCs and SVOCs by screening for vapors and visual observation, and by laboratory analysis of samples from at several locations. No VOCs or SVOCs were detected in the site soils.

Iron and manganese were both found in ground water beneath the site at levels above the NYSDOH Part-5 drinking water limits of 0.3 ppm each and 0.5 ppm combined. Elevated levels of these metals were detected on both the upgradient and downgradient sides of the site; consequently, there is an upgradient source. The results for iron are within the ranges detected in ground water elsewhere in Suffolk County, while manganese detected onsite appeared to be slightly higher and may represent a source in the area. The soil testing for RCRA metals and both iron and manganese also were at levels typical for uncontaminated soils throughout upstate New York.

The only contaminants of concern found within the ground water at the site are PFOS and PFOA, which were found above the EPA HAL of 70 ppt on both the upgradient and downgradient sides of the site. These results, at a minimum, indicate an upgradient source. The East Hampton Airport and a portion of the East Hampton Industrial Park are directly upgradient and within the recharge zone for ground water passing beneath the site (Figure 6). The NYSDEC contractor, AECOM, found PFOA and PFOS at levels higher than the EPA HAL of 70 ppt (roughly equivalent to 70 nanograms per liter (ng/L) at four locations at the airport (AECOM, 2018). The areas where these compounds were detected above the HALs are provided as areas of concern (AOC) in the AECOM report and are

shown herein on Figure 7. Two of the areas are directly upgradient of the site (AOC-3 and 4, Figure 7). One of these two AOCs (AOC-3) contains the Aircraft Rescue and Firefighting Facility (ARFF) that is located at the East Hampton Airport, and the second AOC (AOC-4) includes the burn (firefighting) training center in the East Hampton Town Industrial Park (AECOM, 2018). The other two AOCs (AOC-1 and 2) are upgradient from the eastern portion of the area of residential well testing by the SCDHS that is provided in Appendix D. These are areas where firefighting foam use was documented by AECOM (2018).

Regardless of the apparent upgradient source for the site PFOA and PFOS detections in ground water, Alpha undertook an investigation to evaluate the alleged application of PFAS containing fire suppressant foam during a fire training exercise in June 2000 (Appendix E), as reported by Wright (2018). No PFOA or PFOS were detected in the three soil samples collected by Alpha in the area of that fire training exercise.

The lack of PFOA and PFOS at the site of the fire training exercise is consistent with a comparison of the site photographs taken by Mr. Wright with photographs contained in the AECOM report. The AECOM example of the use of a fire suppressant foam for a training exercise on a bus (Appendix J) shows a thick coating of foam on the both the bus and the ground. This thick foam on the ground and bus in the AECOM produced photographs does not look like the thinner, sparse suds that appear on the ground and bus in the pictures from the WCC site training exercise (Appendix E). The suds at the WCC site appear more consistent with the use of a surfactant such as detergent (soap).

The soapy appearance of the water used at the site in June of 2000 is corroborated by a statement from a fireman who was onsite at the time. According to an affidavit from Mr. James J. McCaffrey, Jr., who was the Chief of the Bridgehampton Fire Department and was onsite during the drill in June 2000, fire suppressant foam was not used at the site during the training exercise (Appendix K). Mr. McCaffrey indicated that a wetting agent was used. Mr. McCaffrey is still a member of the fire department and is a member of the Board of Commissions of the Bridgehampton Fire District. No other information is available from either the Bridgehampton Fire District or the East Hampton Fire Department (whose equipment (see Appendix E) and personnel also participated in the June 2000 training exercise) regarding the June 2000 training exercise at the site (Appendix L).

5.1.3 Current Impacts to Water Resources by the WCC Site

There is no evidence of impacts to either ground water or Georgica Pond by the WCC site. Elevated levels of PFOA and PFAS did not come from the site. Poor quality water that is the product of nutrient loading, primarily by nitrogen and phosphorus, has been identified as the most important contributor to the degradation of Georgica Pond from harmful algal blooms (HABs) (Wise and Bellone, 2017). Wastewater discharge is considered the primary source of nitrogen (Lombardo Associates, 2015). Although phosphorus was not reported in the laboratory analyses, nitrate and chloride testing is sufficient to assess whether there is nutrient loading at the site from wastewater discharges. The low concentration of nitrates in the ground water beneath the site demonstrates that the site is not the source of elevated nitrates in Georgica Pond.

Regardless of the fact that the WCC site is not the source of PFAS, iron and manganese contamination in the water table, the WCC will also be impacted by the presence of those elements and compounds in the water. The impacts on the residential community and those utilizing the WCC site are being addressed by installing municipal water system in Wainscott. According to the Suffolk County Water Authority (SCWA, 2018), 45,000 feet of water main have been installed in Wainscott to address the PFAS issue. It is planned that development of all future lots at the site will include connection to the newly created and expanded Wainscott Water Supply District as the exclusive water supplier to the site.

5.2 Assessment of Future Environmental Impacts

The primary changes to the site in the future will consist of grading the surface fill material, adding access roads, constructing buildings, installing public water supply mains and subsequent end user connections, and installing individual septic systems with leach fields on each lot. The majority of storm water runoff will be contained within the site, as it is now, where it will be removed from the surface by the combined effects of evaporation, transpiration, and percolation to ground water as it is now. The most significant environmental concern will be from point source discharges of nitrates to the subsurface at septic leach fields.

No impacts to ground water are anticipated since the septic systems will be installed to meet SCDHS requirements and approvals. The commercial standards for sewage disposal systems (SCDHS, 2017)

provide the following prohibitions that are already achievable based on the contents of the soil and ground water investigation provided in this report. The commercial standards from the SCDHS document (SCDHS, 2017) are quoted below in italics followed by Alpha's comments.

Sewage Disposal Systems shall not be located:

a) *In any area subject to imminent erosion, which cannot be controlled so as to protect the sewage disposal system(s);*
   There are no obvious erosion issues at the site.
b) *In areas where the highest recorded groundwater level is less than one foot below the original ground surface;*
   The hydrogeologic investigation demonstrated that the water table was three or more feet below the land surface across the site when the water table was likely near its seasonal high. Mapping by Alpha has shown where material could be added when grading the site during development to provide even more separation, if desired.
c) *In areas with existing slopes greater than 15%, unless the site can be properly graded in accordance with these standards. Refer to Section XXII – Final Grading and Backfilling;*
   There is sufficient room at the site to avoid the steep side slopes, which will likely remain as vegetated slopes to form a buffer for the surrounding residential properties.
d) *In areas where the existing sub-soils contain meadow mat, bog, silts, clays, or other impervious material extending below the groundwater table;*
   The hydrogeologic and soil investigations demonstrated that there are no impervious materials extending below the water table.

The scopes of the hydrogeologic and soil investigations by Alpha do not provide sufficient information to address prohibitions e, f, and g. The final prohibition is as follows:

h) *In any area which may reasonably be expected to create a public health risk.*
   There are currently no areas within the site that may reasonably be expected to create a public health risk. The proper spacing as required for regulatory approval will control the

proximity of septic systems to water supplies in the future as the site is permitted and developed.

It is Alpha's opinion, within a reasonable degree of scientific certainty, that there will not be any adverse impacts to the ground water or Georgica Pond if the WCC site is developed.

6.0 CONCLUSIONS

This environmental assessment was conducted to assess whether there are any current impacts to ground water quality and Georgica Pond by the WCC site and whether there is a potential for future impacts to those water resources if the 70-acre site is developed for multi-use commercial and industrial tenants. The site is currently a reclaimed sand and gravel mine with multi-use commercial and industrial tenants at the southern end, and the rest of the property (70 to 75% of the site acreage) is undeveloped. In the future, the site will be developed into individual lots with access roads, buildings, and individual septic systems. Storm water will be contained on site and allowed to evaporate, transpirate, and percolate to the water table as occurs now.

The assessment of current and potential future impacts was conducted by identifying environmental contaminants of concern to the local community, researching past users of the site, conducting a hydrogeologic investigation, and conducting a soil investigation. The following are the key conclusions developed from this environmental assessment. These conclusions are separated between general physical conditions, the current impacts to water resources, and the future impacts to water resources.

6.1 General Physical Conditions

The following conclusions were drawn from this assessment about the physical condition of the site:

- The water table lies between 3.0 to slightly more than 8.0 feet below the site and is more than 10.0 feet below ground surface around the edges of the site.
- Ground water flow beneath the site is from the northwest toward the southeast.
- Ground water is recharged from direct precipitation to the land surface and from storm water runoff that collects on the surface and percolates to the water table.

- The recharge areas for the water table beneath the site are from the site itself and from areas to the northwest that include residential property, the East Hampton Airport, and the East Hampton Industrial Park.
- The primary discharge zone for the ground water flowing beneath the site is Georgica Pond.
- The ground water beneath the site is contaminated with PFOA and PFOS that are at concentrations above the EPA HAL of 70 ppt at some locations beneath the site.
- The elevated concentrations of PFOA and PFOS were on both the upgradient and downgradient sides of the site.
- Elevated concentrations of iron and manganese were found in the ground water on both the upgradient and downgradient sides of the site.
- The ground water in the water table beneath the site met NYSDOH drinking water standards for all other tested parameters, which include hexavalent chromium, 1,4-dioxane, metals (other than iron and manganese), nitrates, chlorides, ammonia, hydrocarbon-related VOCs and SVOCs, chlorinated herbicides, and organophosporus pesticides.
- The soil investigation revealed that the soils above the fine to coarse sand of the "Upper Glacial Aquifer" consist of a fine to coarse sand that is silty at a few locations and contains small amounts of anthropogenic (man-made) materials (cement, concrete, brick, and wood chips) with the fine to coarse sand in four of the nineteen soil borings.
- The soils at the site are not contaminated and do not contain RCRA-8 metals, manganese, petroleum-related SVOCs and VOCs at or above NYS soil cleanup objectives; the iron at the site is consistent with background concentrations in New York; and there were no PFOA and PFOS in the soil at the location of the fire training exercise conducted in June 2000.

6.2 Current Impacts to Water Resources by the WCC Site

The following conclusions, regarding current impacts to water resources, were developed from the soil and hydrogeologic investigations:

- There is no evidence of pollutants entering ground water at the WCC site.
- The elevated levels of nitrates causing the hazardous algal blooms in Georgica Pond are not coming from the WCC site.

- The PFOS and PFOA detected in residential wells downgradient of the WCC site is passing beneath the site from sources upgradient from the WCC site from locations that include the East Hampton Airport and the East Hampton Industrial Park.
- The WCC site is not causing the PFOS and PFOA contamination throughout Wainscott and is not contributing to the PFOA and PFOS contamination downgradient of the site.
- There are no current impacts to either the Town's Recharge Overlay District or Suffolk County's Special Groundwater Protection Area.

6.3 Future Impacts to Water Resources by the WCC Site

The following conclusions were developed with regard to potential future impacts from development of the WCC site:

- The only significant change of environmental significance by further development of the WCC site is the addition of individual septic systems for each new commercial/industrial tenant.
- The depth to the water table and other physical characteristics of the site show that the site can support septic systems that will meet Suffolk County requirements that were established to prevent nitrate loading of ground water and surface water.
- There will be no significant impacts to water resources (ground water (which includes the Town Recharge Overlay District and the County Special Groundwater Protection Area) or Georgica Pond) by the further development of the WCC.

7.0 REFERENCES

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TABLES

TABLE 1
Ground Water Elevation Measurements - 2018
Wainscott Commercial Center
Suffolk County, New York

Well	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-6A		MW-7		MW-8		SG-1*		Georgica Pond USGS Monitoring Station
TOC Elevation (ft rmsl)	14.48		18.94		19.16		18.65		22.36		18.98		18.06		18.49		23.27		20.31		
Date	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE	DTW	SWE	SWE
6/7 - 8/2018	6.02	8.46	9.33	9.61	8.54	10.62	8.74	9.91	11.57	10.79	8.48	10.50	7.58	10.48	8.58	9.91	15.24	8.03	2.19	18.12	5.88 / 5.85
6/26/2018	2.31	12.17	9.53	9.41	8.69	10.47	8.86	9.79	11.71	10.65	8.65	10.33	7.75	10.31	8.76	9.73	15.37	7.90	2.31	18.00	5.81
9/20/2018	6.88	7.60	10.33	8.61	9.80	9.36	9.89	8.76	12.79	9.57	9.70	9.28	8.76	9.30	9.71	8.78	15.87	7.40	2.27	18.04	5.75
12/7/2018	6.37	8.11	9.35	9.59	8.45	10.71	8.71	9.94	11.44	10.92	8.35	10.63	7.45	10.61	8.49	10.00	15.71	7.56	2.15	18.16	**4.22

Notes: Survey was performed by Fox Land Surveying of Westhampton Beach, NY
Elevations referenced to NAV Datum (MSL 1988).
TOC = Top of PVC Casing (Measuring Point) Elevation
DTW = Depth to Ground Water from TOC (feet)
WTE = Water Table Elevation (ft rmsl)
SWE = Surface Water Elevation (ft rmsl)
* Staff Gauge , measurements are from top of wooden stake; stake was broken as of 9/20/18, taped back together. Was broken again on 12/7/2018 and set back up for measurement
Elevation of the top of the Staff Gauge is estimated from the Topographic Survey Map
** The USGS 12 year average for Georgica Pond on 12/7

TABLE 2
2018 Monthly Total Precipitation for Bridgehamton, NY

Month	Precipitation (in.)	Number of Missing Days	Normal
January	4.56	0	4.04
February	5.08	1	3.67
March	4.71	0	5.07
April	3.21	0	4.52
May	2.33	0	3.79
June	3.16	0	4.14
July	3.31	2	3.45
August	4.22	0	4.02
September	5.55	0	4.60
October	6.28	0	4.10
November	9.56	0	4.37
December	4.75	1	4.37
2018 Total	56.72	4	50.14

Station: Bridgehampton, Suffolk County (FIPS 36103), NY;
National Oceanic and Atmospheric Administration ID (GHCN): USC0030089
Other Station IDs: 300889 (Coop); BDGN6 (NWS LI)
Station Location: 40.9520°, -72.2980°
Station Elevation: 42' rmsl
Climate Division: COASTAL (NY04)
source: Northeast Regional Climate Center, Cornell University;
http://climod2.nrcc.cornell.edu/

TABLE 3

VOCs/SVOCs Soil Analytical Results - Wainscott Commercial Center
Town of East Hampton, Suffolk County, New York

NYSDEC CP-51 Petroleum-Related Volatile Organic Compound	NYSDEC Unrestricted Use SCO (ppm)	SB-17 (4-6') 12/7/2018	SB-18 (6') 12/7/2018	SB-19 (6') 12/7/2018
Methyl tert-Butyl Ether (MTBE)	0.93	ND <0.0033	ND <0.0063	ND <0.0035
Benzene	0.06	ND <0.0016	ND <0.0031	ND <0.0017
Ethylbenzene	1.0	ND <0.0016	ND <0.0031	ND <0.0017
Toluene	0.7	ND <0.0016	ND <0.0031	ND <0.0017
m+p Xylene	0.26	ND <0.0033	ND <0.0063	ND <0.0035
o-Xylene	0.26	ND <0.0016	ND <0.0031	ND <0.0017
Isopropylbenzene	NS	ND <0.0016	ND <0.0031	ND <0.0017
n-Propylbenzene	3.9	ND <0.0016	ND <0.0031	ND <0.0017
p-Isopropyltoluene	NS	ND <0.0016	ND <0.0031	ND <0.0017
1,2,4-Trimethylbenzene	3.6	ND <0.0016	ND <0.0031	ND <0.0017
1,3,5-Trimethylbenzene	8.4	ND <0.0016	ND <0.0031	ND <0.0017
n-Butylbenzene	12	ND <0.0016	ND <0.0031	ND <0.0017
sec-Butylbenzene	11	ND <0.0016	ND <0.0031	ND <0.0017
tert-Butylbenzene	5.9	ND <0.0016	ND <0.0031	ND <0.0017
Naphthalene	12	ND <0.0033	ND <0.0063	ND <0.0035

NYSDEC CP-51 Petroleum-Related Semi-Volatile Organic Compound	NYSDEC Unrestricted Use SCO (ppm)	SB-17 (4-6') 12/7/2018	SB-18 (6-7') 12/7/2018	SB-19 (6-8') 12/7/2018
Naphthalene	12	ND <0.19	ND <0.20	ND <0.19
Anthracene	100	ND <0.19	ND <0.20	ND <0.19
Fluorene	30	ND <0.19	ND <0.20	ND <0.19
Phenanthrene	100	ND <0.19	ND <0.20	ND <0.19
Pyrene	100	ND <0.19	ND <0.20	ND <0.19
Fluoranthene	100	ND <0.19	ND <0.20	ND <0.19
Acenaphthene	20	ND <0.19	ND <0.20	ND <0.19
Acenaphthylene	100	ND <0.19	ND <0.20	ND <0.19
Benzo(g,h,i)perylene	100	ND <0.19	ND <0.20	ND <0.19
Benzo(a)anthracene	1.0	ND <0.19	ND <0.20	ND <0.19
Benzo(b)fluoranthene	1.0	ND <0.19	ND <0.20	ND <0.19
Benzo(k)fluoranthene	0.8	ND <0.19	ND <0.20	ND <0.19
Benzo(a)pyrene	1.0	ND <0.19	ND <0.20	ND <0.19
Chrysene	1.0	ND <0.19	ND <0.20	ND <0.19
Indeno(1,2,3-cd)pyrene	0.5	ND <0.19	ND <0.20	ND <0.19
Dibenz(a,h)anthracene	0.33	ND <0.19	ND <0.20	ND <0.19

Notes:

All soil results are reported in milligrams per kilogram (mg/kg), approximately parts per million (ppm)

ND = Not Detected at reporting limit indicated

6NYCRR Part 375.6 Unrestricted Use Soil Cleanup Objective (SCO) or NYSDEC Commissioner's Policy CP-51 Supplemental Soil Cleanup Objective (SSCO)

NS = No SCO or SSCO established

TABLE 4
Metals Soil Analytical Results - Wainscott Commercial Center
Town of East Hampton, Suffolk County, New York

Analyte	NYSDEC Unrestricted Use SCO (ppm)	SB-1 (0.5-1.0') 12/6/2018	SB-2 (0.6-1.1') 12/6/2018	SB-3 (0.7-1.1') 12/6/2018	SB-4 (0.6-1.1') 12/6/2018	SB-5 (0.5-1.0') 12/6/2018	SB-6 (0.8-1.2') 12/6/2018	SB-7 (1.0-1.5') 12/6/2018	SB-8 (1.0-1.5') 12/6/2018	SB-9 (1.5-2.0') 12/6/2018	SB-10 (0.5-1.0') 12/6/2018
Arsenic	13	1.5 J	0.93 J	ND <1.7	5.5	2.6	1.7 J	11	2.8	4.1	ND <1.7
Barium	350	18	14	5.0	16	13	15	24	12	21	4.7
Cadmium	2.5	0.13 J	ND <0.18	ND <0.17	0.27	0.15 J	0.13 J	0.48	0.16 J	0.27	ND <0.17
Chromium	30	5.4	3.9	1.9	8.2	9.5	5.8	14	4.5	7.7	2.2
Iron	NS	4800	3300	1900	7700	6900	4100	13000	3700	5800	2200
Lead	63	31	20	1.4	12	8.5	6.1	15	9	17	2.5
Manganese	1600	69	45	46	86	52	56	120	45	56	22
Mercury	0.18	0.033	0.029	0.0096 J	0.16	0.014 J	0.022 J	0.023 J	0.017 J	0.064	0.0041 J
Selenium	3.9	ND <3.5	ND <3.5	ND <3.5	ND <3.8	ND <3.7	ND <3.7	ND <3.7	ND <3.7	ND <3.6	ND <3.5
Silver	2.0	ND <0.35	ND <0.35	ND <0.35	ND <0.38	ND <0.37	ND <0.37	ND <0.37	ND <0.37	ND <0.36	ND <0.35

Analyte	NYSDEC Unrestricted Use SCO (ppm)	SB-11 (0.8-1.2') 12/6/2018	SB-12 (0.7-1.3') 12/6/2018	SB-13 (1.0-1.5') 12/6/2018	SB-14 (0.8-1.2') 12/6/2018	SB-15 (0.5-1.0') 12/6/2018	SB-16 (0.5-1.0') 12/7/2018	SB-17 (0.8-1.2') 12/7/2018	SB-18 (0.6-1.1') 12/7/2018	SB-19 (1.0-1.5') 12/7/2018
Arsenic	13	1 J	2.4	1.7 J	3.8	3.3	1.3 J	1.2 J	1.4 J	1.2 J
Barium	350	9.6	31	26	24	21	8.4	14	13	11
Cadmium	2.5	0.11 J	0.15 J	0.23	0.21	0.2	0.13 J	ND	0.11 J	0.14 J
Chromium	30	4.7	6.9	7.5	9.2	14	3.4	5.1	6.4	5.3
Iron	NS	3300	3800	5500	7800	5600	4,200	3400	5500	3400
Lead	63	6.4	10	20	9.7	11	14	4.3	4.8	9.6
Manganese	1600	47	54	93	92	100	42	64	57	84
Mercury	0.18	0.011 J	0.019 J	0.075	0.014 J	0.024 J	0.0088 J	0.0047 J	0.0068 J	0.072
Selenium	3.9	ND <3.5	ND <3.7	ND <3.6	ND <3.8	ND <3.6	ND <3.6	ND <3.4	ND <3.6	ND <3.6
Silver	2.0	ND <0.35	ND <0.37	ND <0.36	ND <0.38	ND <0.36	ND <0.36	ND <0.34	ND <0.36	ND <0.36

Notes:

1. All soil results are reported in milligrams per kilogram (mg/kg), approximately parts per million (ppm)
2. 6NYCRR Part 375.6 Unrestricted Use Soil Cleanup Objective (SCO) or NYSDEC Commissioner's Policy CP-51 Supplemental Soil Cleanup Objective (SSCO)
3. NS = No SCO or SSCO established
4. ND = Not Detected at reporting limit indicated
5. J = Detected but below the reporting limit; therefore, result is estimated.

TABLE 5

PFAS Soil Analytical Results - Wainscott Commercial Center
Town of East Hampton, Suffolk County, New York

Analyte	SB-1 (0-6") 12/7/2018	SB-2 (0-6") 12/7/2018	SB-2 (0-6") 12/7/2018
Perfluorohexanoic acid (PFHxA)	ND <2.0	ND <2.0	ND <2.0
N-ethyl perfluorooctanesulfonamidoacetic acidNE (NEtFOSAA)	ND <2.0	ND <2.0	ND <2.0
Perfluorododecanoic acid (PFDoA)	ND <2.0	ND <2.0	ND <2.0
Perfluorotridecanoic acid (PFTrDA)	3.8	2.3	ND <2.0
Perfluorotetradecanoic acid (PFTA)	ND <2.0	ND <2.0	ND <2.0
Perfluoroheptanoic acid (PFHpA)	ND <2.0	ND <2.0	ND <2.0
Perfluorobutanoic acid (PFBA)	ND <2.0	ND <2.0	ND <2.0
Perfluorodecanesulfonic acid (PFDS)	ND <2.0	ND <2.0	ND <2.0
Perfluoroheptanesulfonic acid (PFHpS)	ND <2.0	ND <2.0	ND <2.0
Perfluorooctanesulfonamide (FOSA)	ND <2.0	ND <2.0	ND <2.0
Perfluoropentanoic acid (PFPeA)	ND <2.0	ND <2.0	ND <2.0
6:2 Fluorotelomersulfonate (6:2 FTS)	ND <2.0	ND <2.0	ND <2.0
8:2 Fluorotelomersulfonate (8:2 FTS)	ND <2.0	ND <2.0	ND <2.0
Perfluorohexanesulfonic acid (PFHxS)	ND <2.0	ND <2.0	ND <2.0
Perfluorooctanoic acid (PFOA)	ND <2.0	ND <2.0	ND <2.0
Perfluorobutanesulfonic acid (PFBS)	ND <2.0	ND <2.0	ND <2.0
Perfluorooctanesulfonic acid (PFOS)	ND <2.0	ND <2.0	ND <2.0
Perfluorononanoic acid (PFNA)	ND <2.0	ND <2.0	ND <2.0
Perfluorodecanoic acid (PFDA)	ND <2.0	ND <2.0	ND <2.0
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND <2.0	ND <2.0	ND <2.0
Perfluoroundecanoic acid (PFUnA)	8.1	2.0	1.9J

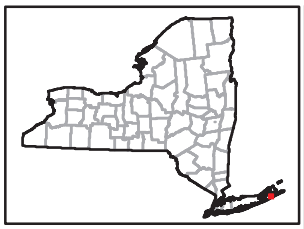
Notes
1. All soil results are reported in micrograms per kilogram (µg/kg), which is equivalent to parts per billion (ppb)
2. ND = Not Detected at reporting limit indicated
3. NS = No Standard available
4. J = Detected but below the reporting limit; therefore, result is estimated by the laboratory
5. The USEPA has established a lifetime Health Advisory Level (HAL) of 70 nanograms per liter (approximately ppt) in drinking water for PFOA and PFOS, either individually or combined. In 2017, the NYSDEC added PFOS and PFOA to the 6NYCRR Part 597 List of Hazardous Substances, but has not established soil screening or cleanup criteria, or ground water quality standards the two compounds. Neither the NYSDEC nor the USEPA has established a criteria or advisory level, in soil or ground water, for the remaining 19 unregulated PFAS listed above.

FIGURES

LEGEND

Site Boundary (approx.)

Source:
-Basemap: 2016 Suffolk County 6-inch resolution natural color orthoimagery, NYS Office of Information Technology Services (ITS). Image date: March 2016.



ALPHA GEOSCIENCE

Proj. No. 17115

FIGURE 1
Site Location Map

Wainscott Commerical Center
East Hampton, Suffolk County, New York

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LEGEND

- Location of Fire Training Exercise in June 2000
- Ready Mix Plant
- Diesel Engine Repair and Former Furniture Repair
- Landscaping Business
- Site Boundary (approx.)

Source:
-Basemap: 2016 Suffolk County 6-inch resolution natural color orthoimagery, NYS Office of Information Technology Services (ITS). Image date: March 2016.

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 2
Areas Of Environmental Interest

Wainscott Commerical Center
Town of East Hampton
Suffolk County, New York

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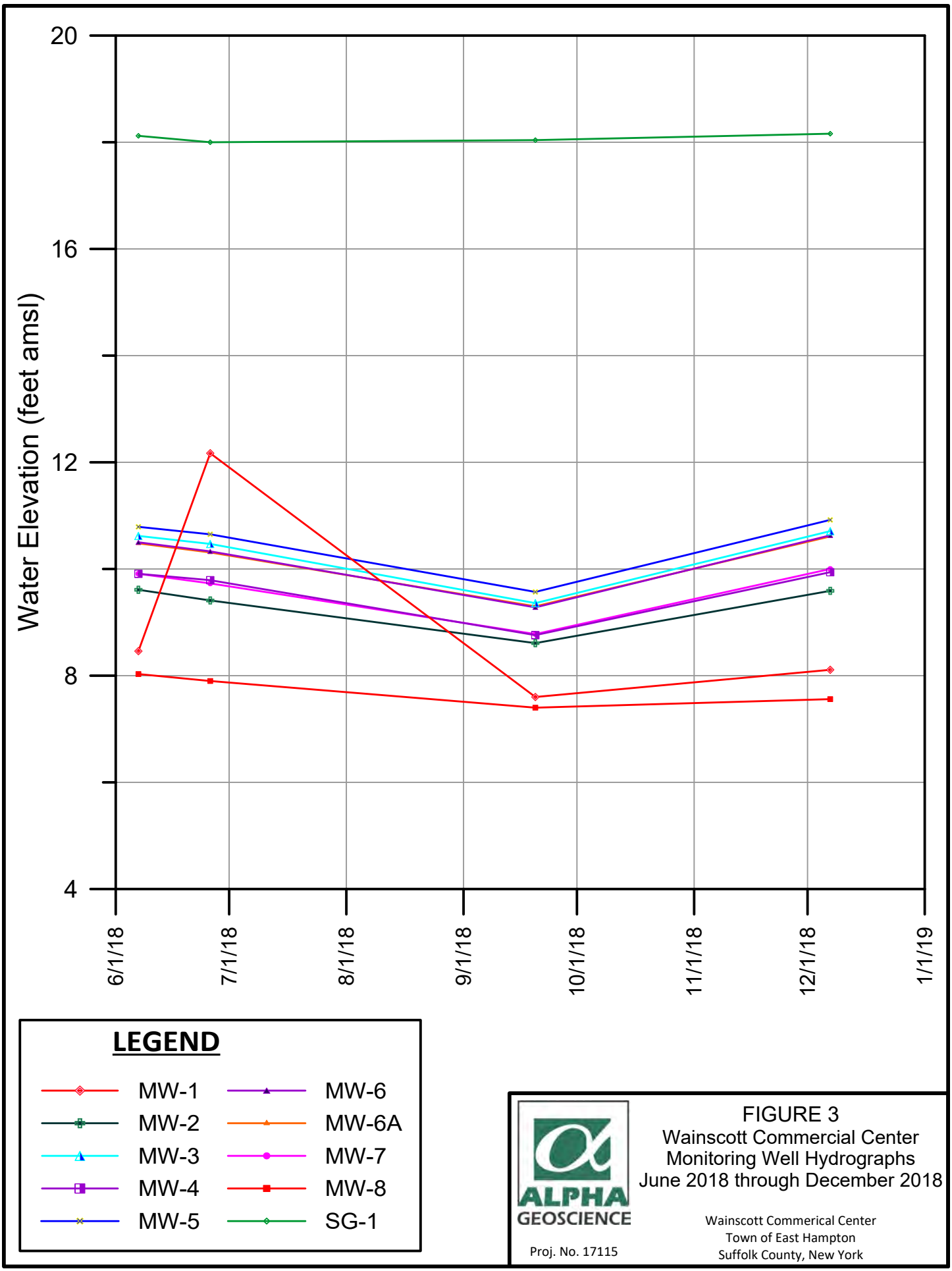

ALPHA GEOSCIENCE

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FIGURE 3
Wainscott Commercial Center
Monitoring Well Hydrographs
June 2018 through December 2018

Wainscott Commerical Center
Town of East Hampton
Suffolk County, New York

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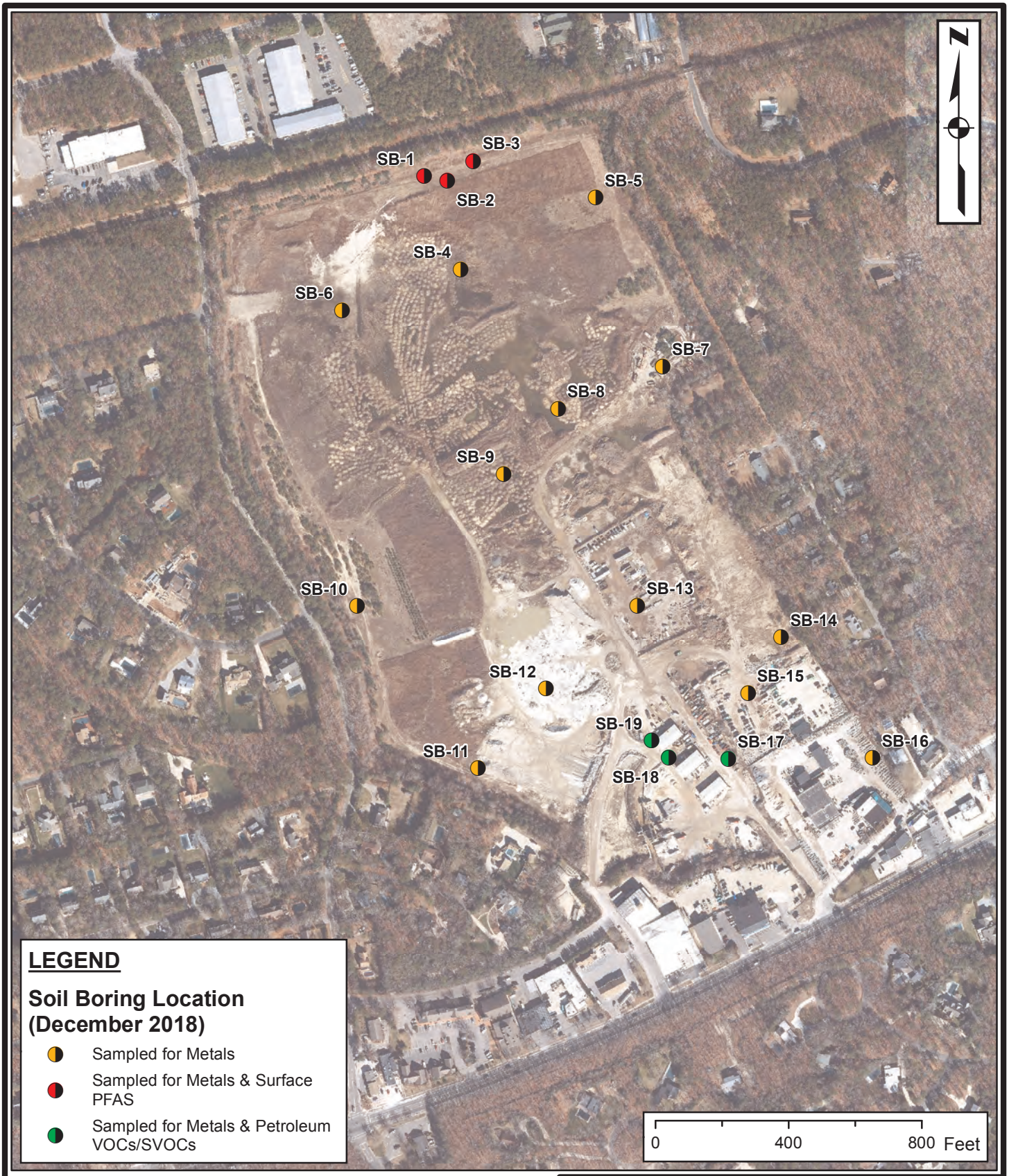
1/7/2019



Notes:
-Basemap: 2016 Suffolk County 6-inch resolution natural color orthoimagery, NYS Office of Information Technology Services (ITS). Image date: March 2016.
-Monitoring well (MW) and staff gauge (SG) are located by Fox Land Surveying on September 14, 2018
-Old Monitoring wells (OMW) located approximately using map by Fox Land Surveying, September 24, 2001

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 4

Soil Boring Locations
December 2018

Wainscott Commerical Center
East Hampton, Suffolk County, New York

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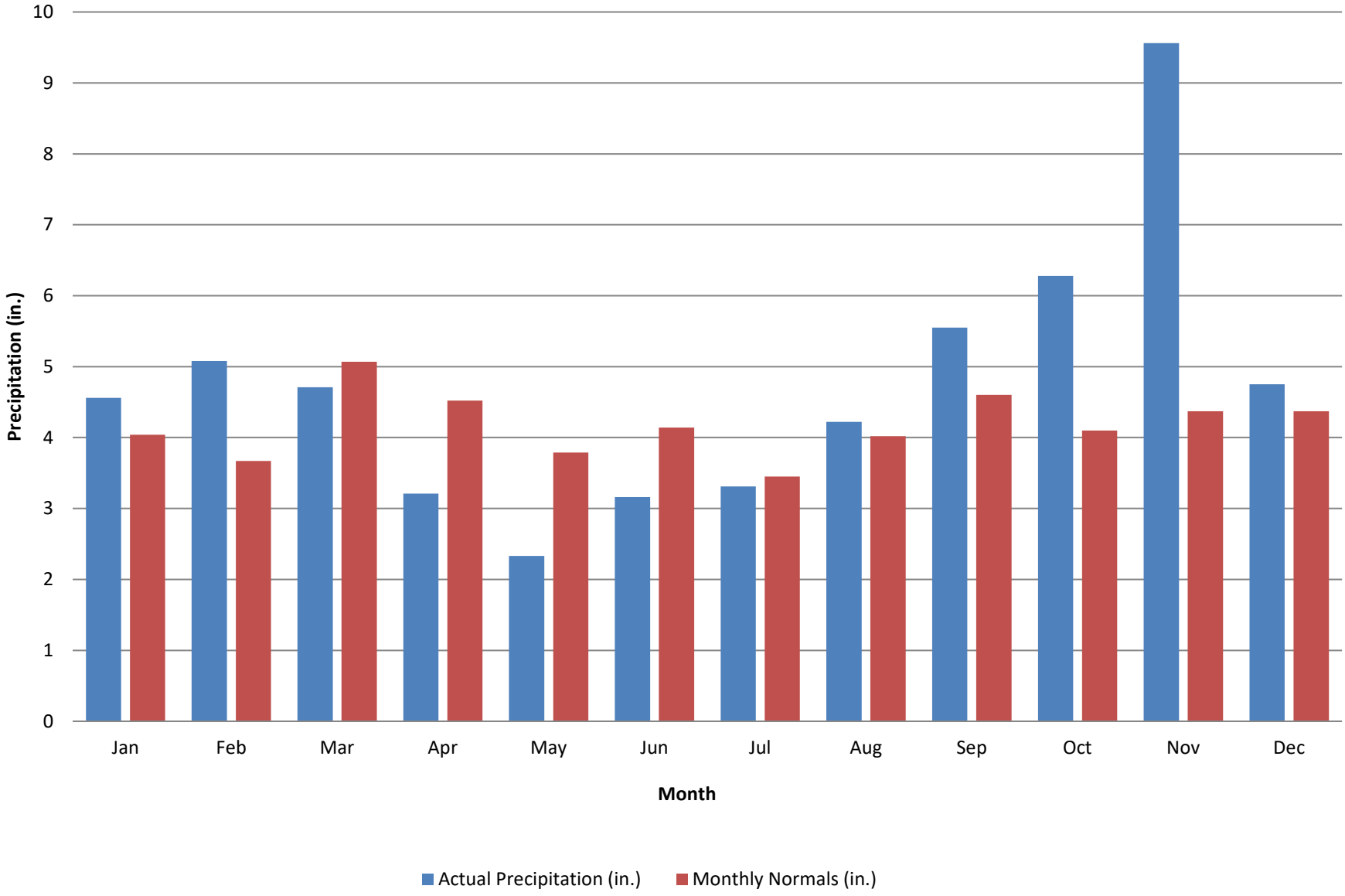
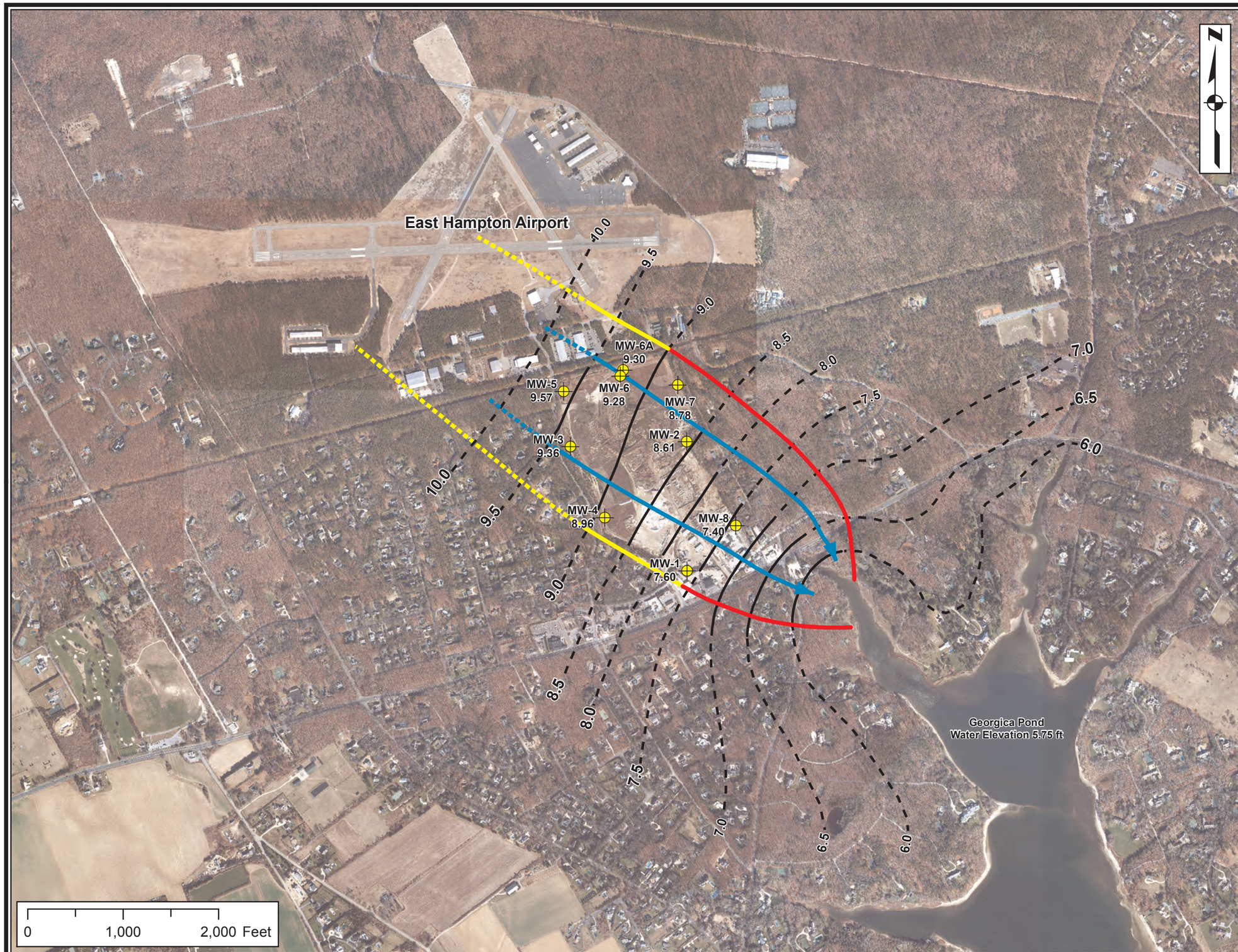
Figure 5
Monthly Precipitation
2018 Actual and Normals at Bridgehampton, NY Station





Legend

- Monitoring Well with Water Table Elevation in feet
- Ground Water Elevation Contour (dashed where inferred)
- Ground Water Flow Direction
- Boundary of Upgradient Recharge Zone
- Boundary of Down Gradient Area

Notes:
-Basemap: 2016 Suffolk County 6-inch resolution natural color orthoimagery, NYS Office of Information Technology Services (ITS). Image date: March 2016.
-Monitoring well and staff gauge were located by Fox Land Surveying on September 14, 2018
-Ground water elevation based on water level measurements by Alpha on September 20, 2018.
-Surface Water Elevation of Georgica Pond measured by USGS September 20, 2018

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Proj. No. 17115

FIGURE 6
Regional Water Table Map ShowingUpgradient Recharge Zone and Down Gradient Area for WCC
Wainscott Commercial Center
Town of East Hampton
Suffolk County, New York

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Legend

- Monitoring Well with Water Table Elevation in feet
- Ground Water Elevation Contour (dashed where inferred)
- Ground Water Flow Direction
- Boundary of Upgradient Recharge Zone
- Boundary of Down Gradient Area
- Area of Concern for PFOA & PFOS (AECOM, 2018)

Notes:
-Basemap: 2016 Suffolk County 6-inch resolution natural color orthoimagery, NYS Office of Information Technology Services (ITS). Image date: March 2016.
-Areas of concern for PFOA & PFOS are based on the areas identified on Figure 8 of "Site Characterization Report: East Hampton Airport, Wainscott, Suffolk County, New York (AECOM, 2018).
-Monitoring well and staff gauge were located by Fox Land Surveying on September 14, 2018
-Ground water elevation based on water level measurements by Alpha on September 20, 2018.
-Surface Water Elevation of Georgica Pond measured by USGS September 20, 2018

ALPHA GEOSCIENCE
Proj. No. 17115

FIGURE 7
Regional Water Table Map with Areas of Concern for PFOA and PFOS

Wainscott Commercial Center
Town of East Hampton
Suffolk County, New York

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PLATES

MW-4 (Well ID)
GSE 15.63 (Ground Surface Elevation in feet amsl)
WTE 9.94 (Water Table Elevation in feet amsl)

Legend

Monitoring Well Location with Ground Surface Elevation (GSE) and Water Table Elevation (WTE)

Ground Water Elevation Contours in Feet Above Sea Level, with Contor Interval of 0.25 Feet

Notes:
- Topographic basemap provided by Fox Land Surveying of Westhampton Beach, NY from data collected on October 5, 2017.
- Ground surface elevations are shown in feet above mean sea level (feet amsl).
- Contour interval is 2 feet.
- Well locations and elevations surveyed by Fox Land Surveying on September 14, 2018.

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Proj. No. 17115

PLATE 1

Water Table Contour Map
12/7/2018 Data

Wainscott Commerical Center
Town of East Hampton
Suffolk County, New York

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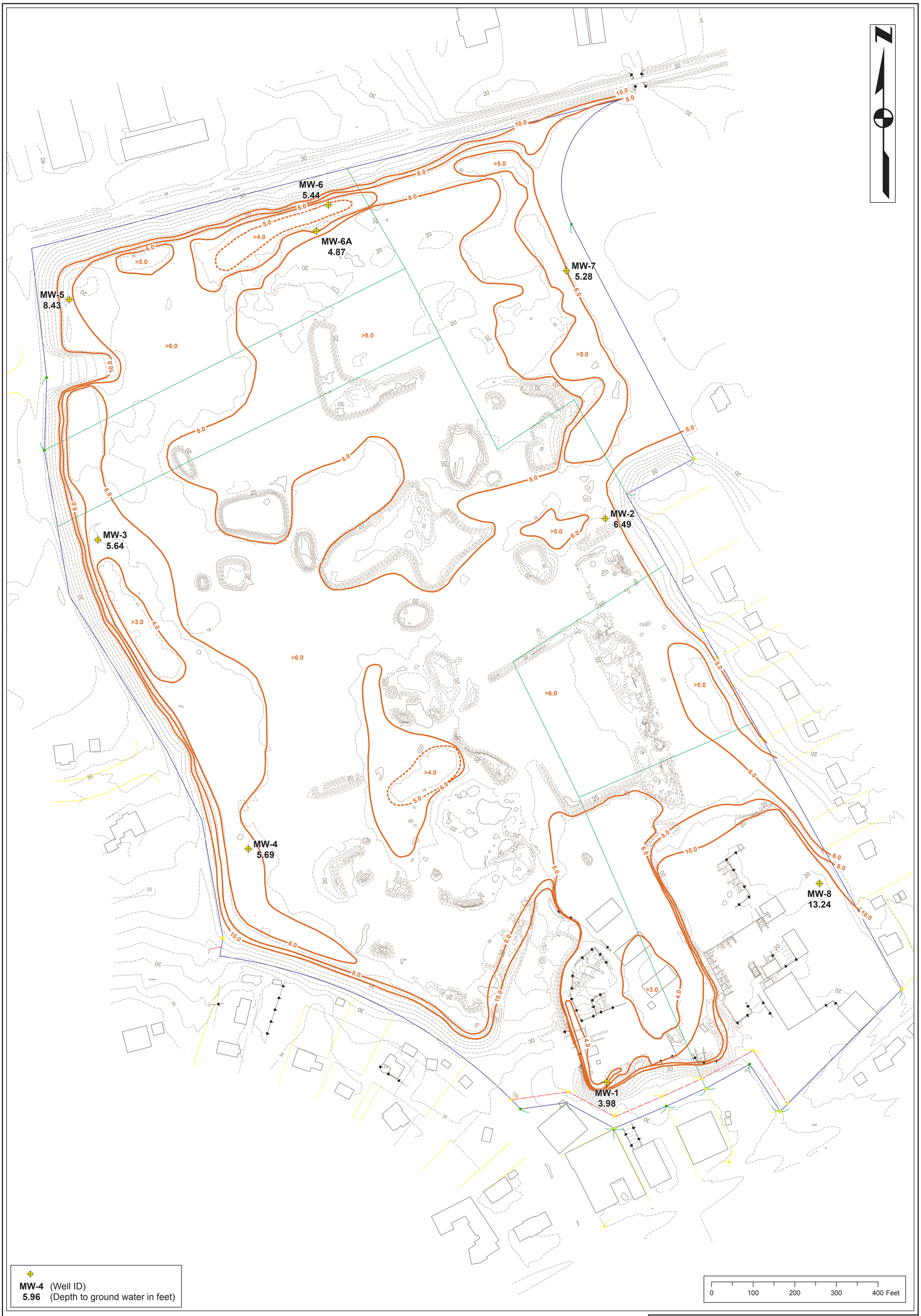

MW-4 (Well ID)
5.96 (Depth to ground water in feet)

Legend

Monitoring Well Location with Depth to Ground Water (DGW) in Feet

Depth to Ground Water Below the Ground Surface, in Feet
Contour interval is 2 feet. Supplemental 1 foot contours are dashed.

Notes:
- Topographic basemap provided by Fox Land Surveying of Westhampton Beach, NY from data collected on October 5, 2017.
- Ground surface elevations are shown in feet above mean sea level (feet amsl).
- Contour interval is 2 feet.
- Well locations and elevations surveyed by Fox Land Surveying on September 14, 2018.

ALPHA GEOSCIENCE

Proj. No. 17115

PLATE 2

Depth to Ground Water Below the Land Surface
(Unsaturated Thickness)
12/7/2018 Data

Wainscott Commerical Center
Town of East Hampton
Suffolk County, New York

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APPENDICES

APPENDIX A

List of Uses and Tenants at Wainscott Commercial Center

List of Uses and Tenants at Wainscott Commercial Center

Current Uses and Tenants

Suffolk Cement - Pre-zoning to present - Ready-Mix Plant (no cement manufacturing), office, cement truck storage

Southampton Masonry - Pre-zoning to present **–** includes cement block manufacturing plant, an office and retail /wholesale store with indoor and outdoor storage

Emergency Mechanical Services - 2001- to present - currently housed in metal buildings "to be removed" per proposed subdivision - diesel truck repair

Landscaping Details – 2012 to present (currently winding down at site after move to Town owned property on Industrial Road) - outdoor storage of trucks, equipment, plant material and supplies

DJ Whelan Corporation - 2006 to present - Dock Builder- outdoor storage of trucks and equipment

Prior Uses and Tenants

Sand Mining and Reclamation - Pre-zoning to 1998 (NYSDEC approved final reclamation of the site and released financial reclamation surety bond in July, 1998).

Grimes Contracting - 1986 to 2006 – located in one of three service commercial buildings – included office, equipment storage (indoor and outdoor)

Bobby Jones Furniture Repair –1988 to 2000- located in one of three service commercial buildings- office- furniture repair

Sandpebble Builders - 1988 to 2000- located in one of three service commercial buildings- contractor- equipment and materials storage

Gunite Unlimited - 1996 to 2000 - located in one of three service commercial buildings - pool contractor- office, equipment storage

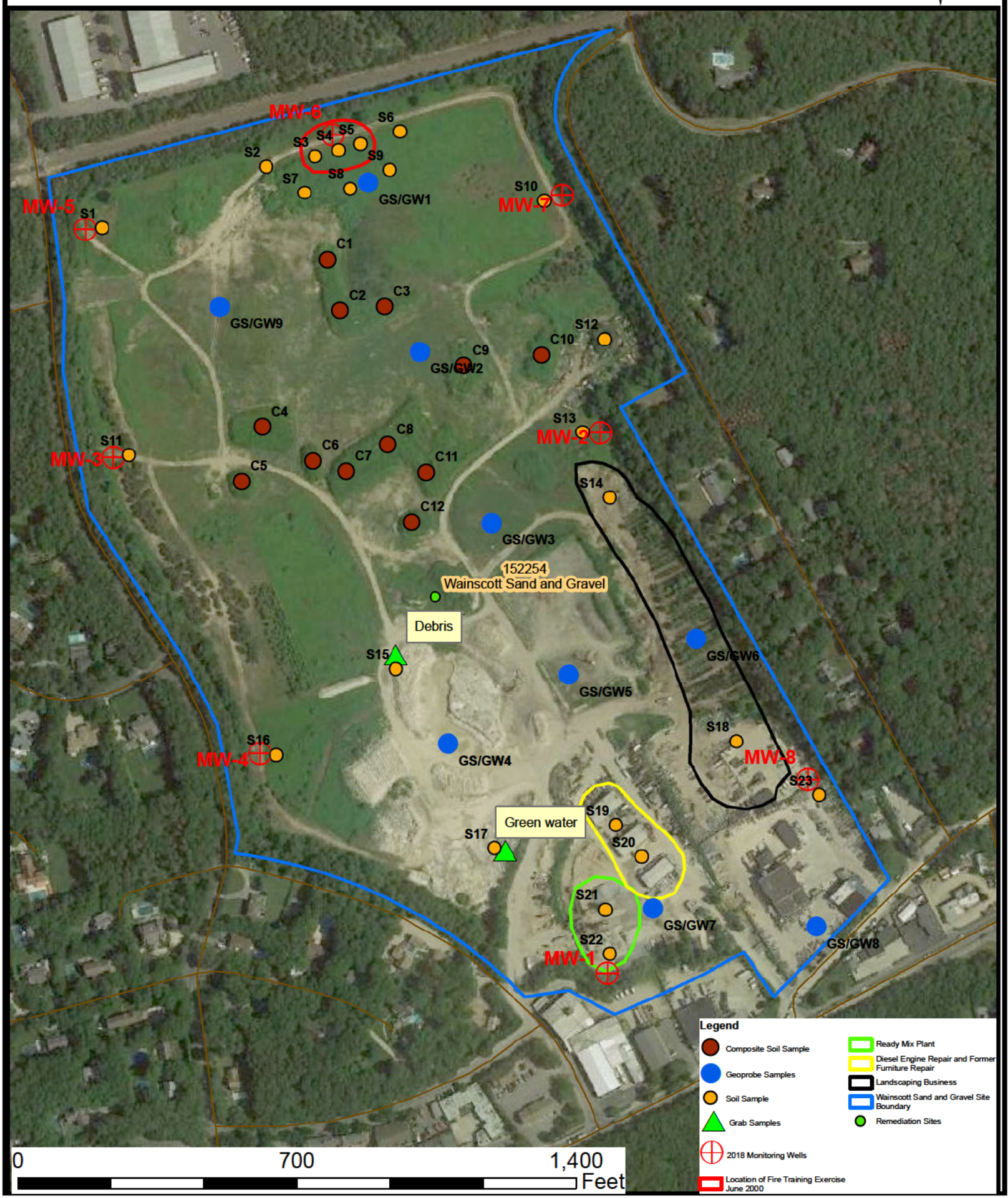
Summerhill Landscaping - 2013 to 2015 - outdoor storage of trucks, equipment, plant material and supplies

Emil Norsic & Son Inc. - 2010 to 2014 - limited to outdoor storage of empty dumpster's toilets (no cleaning or handling of waste on site)

APPENDIX D-4

NYSDEC SITE CHARACTERIZATION SAMPLING PLAN

152254 - Wainscott Sand and Gravel
Site Characterization Sampling Plan



Soil Samples										
	Interval		Analysis							
Sample ID	Surface (0-2")	Shallow (6"-2')	Metals	VOCs	SVOCs	PCBs	Pesticides	Herbicides	PFAS	1,4-dioxane
S1	X	X							X	
S2	X	X							X	
S3	X	X							X	
S4	X	X							X	
S5	X	X							X	
S6	X	X							X	
S7	X	X							X	
S8	X	X							X	
S9	X	X							X	
S10	X	X							X	
S11	X	X							X	
S12	X	X							X	
S13	X	X							X	
S14	X	X							X	
S15	X	X							X	
S16	X	X							X	
S17	X	X							X	
S18	X	X							X	
S19	X	X	X	X	X	X	X	X	X	X
S20	X	X	X	X	X	X	X	X	X	X
S21	X	X	X	X	X	X	X	X	X	X
S22	X	X	X	X	X	X	X	X	X	X
S23	X	X							X	
Totals	23	23	8	8	8	8	8	8	46	8

Note: Totals are the number of analyses multiplied by number of sample intervals

Composite Soil Samples								
	Analysis							
Sample ID	Metals	VOCs	SVOCs	PCBs	Pesticides	Herbicides	PFAS	1,4-dioxane
C1	X	X	X	X	X	X	X	X
C2	X	X	X	X	X	X	X	X
C3	X	X	X	X	X	X	X	X
C4	X	X	X	X	X	X	X	X
C5	X	X	X	X	X	X	X	X
C6	X	X	X	X	X	X	X	X
C7	X	X	X	X	X	X	X	X
C8	X	X	X	X	X	X	X	X
C9	X	X	X	X	X	X	X	X
C10	X	X	X	X	X	X	X	X
C11	X	X	X	X	X	X	X	X
C12	X	X	X	X	X	X	X	X
Totals	12	12	12	12	12	12	12	12

Note: Totals are the number of analyses multiplied by number of sample intervals

Geoprobe Soil Samples									
		Analysis							
Sample ID	Interval	Metals	VOCs	SVOCs	PCBs	Pesticides	Herbicides	PFAS	1,4-dioxane
GS1	Surface (0-2")	X	X	X	X	X	X	X	X
	Shallow (6"-2')	X	X	X	X	X	X	X	X
	Deep (3'-1' above GW Surface)							X	
GS2	Surface (0-2")	X	X	X	X	X	X	X	X
	Shallow (6"-2')	X	X	X	X	X	X	X	X
	Deep (3'-1' above GW Surface)							X	
GS3	Surface (0-2")	X	X	X	X	X	X	X	X
	Shallow (6"-2')	X	X	X	X	X	X	X	X
	Deep (3'-1' above GW Surface)							X	
GS4	Surface (0-2")	X	X	X	X	X	X	X	X
	Shallow (6"-2')	X	X	X	X	X	X	X	X
	Deep (3'-1' above GW Surface)							X	
GS5	Surface (0-2")	X	X	X	X	X	X	X	X
	Shallow (6"-2')	X	X	X	X	X	X	X	X
	Deep (3'-1' above GW Surface)							X	
GS6	Surface (0-2")	X	X	X	X	X	X	X	X
	Shallow (6"-2')	X	X	X	X	X	X	X	X
	Deep (3'-1' above GW Surface)							X	
GS7	Surface (0-2")	X	X	X	X	X	X	X	X
	Shallow (6"-2')	X	X	X	X	X	X	X	X
	Deep (3'-1' above GW Surface)							X	
GS8	Surface (0-2")	X	X	X	X	X	X	X	X
	Shallow (6"-2')	X	X	X	X	X	X	X	X
	Deep (3'-1' above GW Surface)							X	
GS9	Surface (0-2")	X	X	X	X	X	X	X	X
	Shallow (6"-2')	X	X	X	X	X	X	X	X
	Deep (3'-1' above GW Surface)							X	
Totals		18	18	18	18	18	18	27	18

Note: Only PFAS to be analyzed in deepest interval.

Geoprobe Water Samples									
		Analysis							
Sample ID	Interval	Metals	VOCs	SVOCs	PCBs	Pesticides	Herbicides	PFAS	1,4-dioxane
GW1	GW Interface	X	X	X	X	X	X	X	X
	GW Interface - 10'							X	
	GW Interface - 20'							X	
GW2	GW Interface	X	X	X	X	X	X	X	X
	GW Interface - 10'							X	
	GW Interface - 20'							X	
GW3	GW Interface	X	X	X	X	X	X	X	X
	GW Interface - 10'							X	
	GW Interface - 20'							X	
GW4	GW Interface	X	X	X	X	X	X	X	X
	GW Interface - 10'							X	
	GW Interface - 20'							X	
GW5	GW Interface	X	X	X	X	X	X	X	X
	GW Interface - 10'							X	
	GW Interface - 20'							X	
GW6	GW Interface	X	X	X	X	X	X	X	X
	GW Interface - 10'							X	
	GW Interface - 20'							X	
GW7	GW Interface	X	X	X	X	X	X	X	X
	GW Interface - 10'							X	
	GW Interface - 20'							X	
GW8	GW Interface	X	X	X	X	X	X	X	X
	GW Interface - 10'							X	
	GW Interface - 20'							X	
GW9	GW Interface	X	X	X	X	X	X	X	X
	GW Interface - 10'							X	
	GW Interface - 20'							X	
Totals		9	9	9	9	9	9	27	9

Note: Only PFAS to be analyzed in second and third intervals.

Water Samples								
	Analysis							
Sample ID	Metals	VOCs	SVOCs	PCBs	Pesticides	Herbicides	PFAS	1,4-dioxane
MW-1							X	
MW-2							X	
MW-3	X	X	X	X	X	X	X	X
MW-4	X	X	X	X	X	X	X	X
MW-5	X	X	X	X	X	X	X	X
MW-6	X	X	X	X	X	X	X	X
MW-7							X	
MW-8							X	
Totals	4	4	4	4	4	4	8	4

Grab Samples								
	Analysis							
Sample ID	Metals	VOCs	SVOCs	PCBs	Pesticides	Herbicides	PFAS	1,4-dioxane
Debris	X	X	X	X	X	X	X	X
Green Water	X	X	X	X	X	X	X	X
Totals	2	2	2	2	2	2	2	2

Soils							
Analysis							
Metals	VOCs	SVOCs	PCBs	Pesticides	Herbicides	PFAS	1,4-dioxane
39	39	39	39	39	39	86	39

	Soils							
	Analysis							
QA/QC	Metals	VOCs	SVOCs	PCBs	Pesticides	Herbicides	PFAS	1,4-dioxane
DUP	2	2	2	2	2	2	5	2
MS	2	2	2	2	2	2	5	2
MSD	2	2	2	2	2	2	5	2
TB	0	2	0	0	0	0	0	0
FB	2	2	2	2	2	2	5	2
Totals	47	49	47	47	47	47	106	47

Water							
Analysis							
Metals	VOCs	SVOCs	PCBs	Pesticides	Herbicides	PFAS	1,4-dioxane
14	14	14	14	14	14	36	14

	Water							
	Analysis							
QA/QC	Metals	VOCs	SVOCs	PCBs	Pesticides	Herbicides	PFAS	1,4-dioxane
DUP	1	1	1	1	1	1	2	1
MS	1	1	1	1	1	1	2	1
MSD	1	1	1	1	1	1	2	1
TB	0	1	0	0	0	0	0	0
FB	1	1	1	1	1	1	2	1
Totals	18	19	18	18	18	18	44	18
Combined Total	65	68	65	65	65	65	150	65

APPENDIX D-5

SCWA DISTRIBUTION AREA 23 GROUNDWATER DATA

Naturally Occuring Compounds as well as Contaminants					Distribution Area 23 Range of Readings				
Detected Compound	MCL	MCGL	Unit Of Measure	Likely Source	Violation Yes/No	Low Value	High Value	Avg. Value	No. Of Tests
Inorganics									
Alkalinity to pH 4.5 mg CaCO3/L	n/a	n/a	mg/L	Naturally occurring	NO	ND	78.0	46.8	112
Aluminum	n/a	n/a	mg/L	Naturally occurring	NO	ND	0.08	0.02	153
Ammonia, free	n/a	n/a	mg/L	Some fertilizers, septic systems	NO	ND	ND	ND	156
Arsenic	10	0	ug/L	Erosion of natural deposits	NO	ND	ND	ND	153
Barium	2	2	mg/L	Erosion of natural deposits	NO	ND	0.08	0.03	153
Boron	n/a	n/a	mg/L	Naturally occurring	NO	ND	ND	ND	199
Bromide	n/a	n/a	ug/L	Naturally occurring	NO	ND	127.0	ND	179
Cadmium	5	5	ug/L	Natural deposits, galvanized pipe	NO	ND	0.2	ND	153
Calcium	n/a	n/a	mg/L	Naturally occurring, pH control	NO	3.8	46.1	20.9	199
Chloride	250	n/a	mg/L	Naturally occurring, salt water intrusion	NO	9.7	97.7	33.7	263
Chromium, total	100	100	ug/L	Natural deposits	NO	ND	1.7	ND	153
CO2, calculated	n/a	n/a	mg/L	Naturally occurring	NO	0.3	23.7	6.4	112
Cobalt-59	n/a	n/a	ug/L	Naturally occurring	NO	ND	4.3	0.5	153
Color	15	n/a	Color Units	Naturally occurring metals or minerals	NO	ND	10	ND	112
Copper	AL=1.3	1.3	mg/L	Household plumbing	NO	ND	0.04	ND	153
Dissolved Solids, total	n/a	n/a	mg/L	Naturally occurring minerals and metals	NO	66	305	149	57
Fluoride	2.2	n/a	mg/L	Erosion of natural deposits	NO	ND	ND	ND	263
Hardness, total	n/a	n/a	mg/L	Measure of the calcium and magnesium	NO	15.9	143.0	71.0	199
Hexavalent Chromium	n/a	n/a	ug/L	Erosion of natural deposits	NO	ND	3.63	0.39	119
Iron	300	n/a	ug/L	Naturally occurring	YES	ND	424	86	199
Lead	AL=15	0	ug/L	Household plumbing, lead solder	NO	ND	ND	ND	153
Lithium	n/a	n/a	ug/L	Naturally occurring	NO	ND	4.8	1.1	153
Magnesium	n/a	n/a	mg/L	Naturally occurring	NO	1.48	9.35	4.54	199
Manganese	300	n/a	ug/L	Naturally occurring	NO	ND	146	17	199
Molybdenum	n/a	n/a	ug/L	Naturally occurring	NO	ND	ND	ND	153
Nickel	100	n/a	ug/L	Alloys, coatings manufacturing, batteries	NO	ND	4.4	0.7	153
Nitrate	10	10	mg/L	Natural deposits, fertilizer, septic tanks	NO	ND	9.92	3.68	263
Nitrite	1	1	mg/L	Natural deposits, fertilizer, septic tanks	NO	ND	ND	ND	263
Perchlorate	15	5	ug/L	Fertilizers, solid fuel propellant, fireworks	NO	ND	1.25	0.24	149
pH	n/a	n/a	pH Units	Measure of water acidity or alkalinity	NO	6.5	8.5	7.2	111
pH, field	n/a	n/a	pH Units	Measure of water acidity or alkalinity	NO	7.0	8.1	7.3	60
Phosphate, total	n/a	n/a	mg/L	Added to keep iron in solution	NO	ND	1.65	0.33	199
Potassium	n/a	n/a	mg/L	Naturally occurring	NO	0.40	3.88	1.23	199
Silicon	n/a	n/a	mg/L	Naturally occurring	NO	5.3	10.2	7.6	153
Sodium	n/a	n/a	mg/L	Naturally occurring	NO	7.0	55.3	16.3	199
Specific Conductance	n/a	n/a	umho/cm	Total of naturally occurring minerals	NO	77	545	225	112
Strontium-88	n/a	n/a	mg/L	Naturally occurring	NO	0.020	0.148	0.069	153
Sulfate	250	n/a	mg/L	Naturally occurring	NO	3.3	58.0	20.8	263
Tin	n/a	n/a	ug/L	Solder used in plumbing	NO	ND	ND	ND	153
Titanium	n/a	n/a	ug/L	Naturally occurring	NO	ND	ND	ND	199
Total Organic Carbon (TOC)	n/a	n/a	mg/L	Naturally occurring	NO	ND	ND	ND	11
Turbidity	5	n/a	NTU	Silts and clays in aquifer	NO	ND	1.9	ND	113
Vanadium	n/a	n/a	ug/L	Naturally occurring	NO	ND	5.2	ND	153
Zinc	5	n/a	mg/L	Naturally occurring, plumbing	NO	ND	0.02	ND	153
Synthetic Organic Compounds including Pesticides and Herbicides									
Alachlor ESA	50	n/a	ug/L	Degradation product of Alachlor	NO	ND	ND	ND	205
Alachlor OA	50	n/a	ug/L	Degradation product of Alachlor	NO	ND	ND	ND	205
Aldicarb Sulfone	2	1	ug/L	Pesticide used on row crops	NO	ND	ND	ND	206
Aldicarb Sulfoxide	4	1	ug/L	Pesticide used on row crops	NO	ND	0.59	ND	206
Chlordane, Total	2	n/a	ug/L	Residue of banned termiticide	NO	ND	ND	ND	137
1,4-Dioxane	50	n/a	ug/L	Used in manufacturing processes	NO	ND	0.22	ND	153
Hexazinone	50	n/a	ug/L	Used as an herbicide	NO	ND	ND	ND	161
Metalaxyl	50	n/a	ug/L	Used as a fungicide	NO	ND	ND	ND	161
Metolachlor ESA	50	n/a	ug/L	Degradation product of Metolachlor	NO	ND	3.20	ND	205
Metolachlor OA	50	n/a	ug/L	Degradation product of Metolachlor	NO	ND	1.18	ND	205
Tetrachloroterephtalic Acid	50	n/a	ug/L	Used as an herbicide	NO	ND	2.33	ND	150
Volatile Organic Compounds									
Chlorobenzene	5	n/a	ug/L	From industrial chemical factories	NO	ND	ND	ND	239
Chlorodifluoromethane	5	n/a	ug/L	Used as a refrigerant	NO	ND	6.30	ND	239
Cis-1,2-Dichloroethene	5	n/a	ug/L	From industrial chemical factories	NO	ND	ND	ND	239
1,3-Dichlorobenzene	5	n/a	ug/L	Used as a fumigant and insecticide	NO	ND	ND	ND	239
1,4-Dichlorobenzene	5	n/a	ug/L	Used as a fumigant and insecticide	NO	ND	ND	ND	239
Dichlorodifluoromethane	5	n/a	ug/L	Refrigerant, aerosol propellant	NO	ND	ND	ND	239
1,1-Dichloroethane	5	n/a	ug/L	Degreaser, gasoline, manufacturing	NO	ND	ND	ND	239
1,2-Dichloroethane	5	n/a	ug/L	From industrial chemical factories	NO	ND	ND	ND	239
1,1-Dichloroethene	5	n/a	ug/L	From industrial chemical factories	NO	ND	ND	ND	239
1,2-Dichloropropane	5	0	ug/L	From industrial chemical factories	NO	ND	ND	ND	239
Ethyl Benzene	5	n/a	ug/L	From paint on inside of water storage tank	NO	ND	ND	ND	239
4-Methyl-2-Pentanone	50	n/a	ug/L	From manufacturing facilities	NO	ND	ND	ND	239
Methylethylketone (MEK)	50	n/a	ug/L	Used in the coatings industry	NO	ND	ND	ND	239
Methyl-Tert-Butyl Ether	10	n/a	ug/L	Gasoline	NO	ND	0.38	ND	239

Detected Compound	MCL	MCGL	Unit Of Measure	Likely Source	Violation Yes/No	Low Value	High Value	Avg. Value	No. Of Tests
Volatile Organic Compounds (Continued)									
o-Xylene	5	n/a	ug/L	From paint on inside of water storage tank	NO	ND	0.21	ND	239
p,m-Xylene	5	n/a	ug/L	From paint on inside of water storage tank	NO	ND	ND	ND	239
Tetrachloroethene	5	0	ug/L	Factories, dry cleaners, spills	NO	ND	ND	ND	239
Tetrahydrofuran	50	n/a	ug/L	Solvent for natural and synthetic resins	NO	ND	ND	ND	239
Toluene	5	n/a	ug/L	From paint on inside of water storage tank	NO	ND	ND	ND	239
1,2,4-Trichlorobenzene	5	n/a	ug/L	Discharge from textile-finishing factories	NO	ND	ND	ND	239
1,1,1-Trichloroethane	5	n/a	ug/L	Metal degreasing sites, factories	NO	ND	ND	ND	239
Trichloroethene	5	0	ug/L	Metal degreasing sites, factories	NO	ND	ND	ND	239
Trichlorofluoromethane	5	n/a	ug/L	Dry cleaning, propellant, fire extinguishers	NO	ND	ND	ND	239
1,2,3-Trichloropropane	5	n/a	ug/L	Degreasing agent, manufacturing	NO	ND	0.25	ND	239
1,1,2-Trichlorotrifluoroethane	5	n/a	ug/L	Solvent in paints and varnishes	NO	ND	ND	ND	239

Please see pages 12 through 14 for information on the Perfluoroalkyl and Polyfluoroalkyl Substances testing.

Synthetic Organic Compunds including Per- and Polyfluoroalkyl Substances Monitoring					Distribution Area 23 Range of Readings				
Detected Compound	MCL	MCGL	Unit Of Measure	Likely Source	Violation Yes/No	Low Value	High Value	Avg. Value	No. Of Tests
Synthentic Organic Compunds including Perfluoroalkyl and Polyfluoroalkyl Substances - Analysis Performed by EPA Method 537									
Perfluorobutanesulfonic Acid	50	n/a	ug/L	PFOA (or, PFOS) can get into drinking	NO	ND	ND	ND	7
Perfluorohexane Sulfonic Acid	50	n/a	ug/L	water through releases from fluoropolymer	NO	ND	ND	ND	7
Perfluorononanoic Acid	50	n/a	ug/L	manufacturing or processing facilities,	NO	ND	ND	ND	7
Perfluorooctanoic Sulfonate	0.07	n/a	ug/L	wastewater treatment plants and	NO	ND	ND	ND	7
Perfluorooctane Sulfonate	0.07	n/a	ug/L	landfills	NO	ND	ND	ND	7
Synthentic Organic Compunds including Perfluoroalkyl and Polyfluoroalkyl Substances - Analysis Performed by NYS Approved SCWA PFAAS Method									
Perfluorobutanesulfonic Acid	50	n/a	ug/L		NO	ND	ND	ND	77
Perfluoro-n-hexanoic Acid	50	n/a	ug/L	PFOA (or, PFOS) can get into drinking	NO	ND	ND	ND	77
Perfluorohexane Sulfonic Acid	50	n/a	ug/L	water through releases from fluoropolymer	NO	ND	ND	ND	77
Perfluorononanoic Acid	50	n/a	ug/L	manufacturing or processing facilities,	NO	ND	ND	ND	77
Perfluorooctanoic Sulfonate	0.07	n/a	ug/L	wastewater treatment plants and	NO	ND	0.004	ND	77
Perfluorooctane Sulfonate	0.07	n/a	ug/L	landfills	NO	ND	0.005	ND	77

Please see pages 16 through 18 for information on the PPCPs testing.

Pharmaceuticals and Personal Care Products (PPCPs) Monitoring					Distribution Area 23 Range of Readings				
Detected Compound	MCL	MCGL	Unit Of Measure	Likely Source	Violation Yes/No	Low Value	High Value	Avg. Value	No. Of Tests
Synthetic Organic Compounds including Pesticides and Pharmaceuticals									
Butalbital	50	n/a	ug/L	Used for the treatment of pain	NO	ND	ND	ND	137
Carbamazepine	50	n/a	ug/L	Anticonvulsant, mood stabilizing drug	NO	ND	ND	ND	137
Dilantin	50	n/a	ug/L	Antiepileptic drug	NO	ND	ND	ND	137
Gemfibrozil	50	n/a	ug/L	Lipid lowering drug	NO	ND	ND	ND	137
5-(4-Hydroxyphenyl)-5-Phenylhydantoin	50	n/a	mg/l	Used for determining drug levels in the body	NO	ND	ND	ND	137
Ibuprofen	50	n/a	ug/L	Anti-inflammatory drug	NO	ND	ND	ND	137
Imidacloprid	50	n/a	ug/L	Used as a pesticide	NO	ND	0.14	ND	137
Lamotrigine	50	n/a	ug/L	Pharmaceutical anticonvulsant drug	NO	ND	ND	ND	137
Meprobamate	50	n/a	ug/L	Antianxiety drug	NO	ND	ND	ND	137
Phenobarbital	50	n/a	ug/L	Anticonvulsant, mood stabilizing drug	NO	ND	ND	ND	137
Primidone	50	n/a	ug/L	Pharmaceutical anticonvulsant drug	NO	ND	ND	ND	137
Sulfamethoxazole	50	n/a	ug/L	Antibiotic	NO	ND	ND	ND	137

Disinfectants and Disinfection Byproducts (DDBPs) Monitoring					Distribution Area 23 Range of Readings				
Detected Compound	MCL	MCGL	Unit Of Measure	Likely Source	Violation Yes/No	Low Value	High Value	Avg. Value	No. Of Tests
Disinfectant and Disinfection By-Products (MCL is the sum of the four starred compounds shown below)**									
Bromochloroacetic Acid	50	n/a	ug/L	By-product of chlorination	NO	ND	ND	ND	8
Bromodichloromethane	**80	n/a	ug/L	By-product of chlorination	NO	ND	5.15	ND	239
Bromoform	**80	n/a	ug/L	By-product of chlorination	NO	ND	2.15	ND	239
Chlorate	n/a	n/a	mg/L	By-product of chlorination	NO	ND	0.51	0.12	122
Chloroform	**80	n/a	ug/L	By-product of chlorination	NO	ND	8.63	1.09	239
Dibromoacetic Acid	*60	n/a	ug/L	By-product of chlorination	NO	ND	0.73	ND	8
Dibromochloromethane	**80	n/a	ug/L	By-product of chlorination	NO	ND	5.54	ND	239
Dichloroacetic Acid	*60	n/a	ug/L	By-product of chlorination	NO	ND	ND	ND	8
Free Chlorine	4	n/a	mg/L	Used as disinfectant	NO	0.20	2.20	0.87	1203
Monobromoacetic Acid	*60	n/a	ug/L	By-product of chlorination	NO	ND	ND	ND	8
Trichloroacetic Acid	*60	n/a	ug/L	By-product of chlorination	NO	ND	ND	ND	8
(*MCL is the sum of the starred compounds shown above, including Monochloroacetic Acid not present)									

Please see pages 22 through 24 for information on the DDBPs testing.

APPENDIX E-1

SONIR MANUAL

SONIR MODEL USER'S GUIDE

Simulation of Nitrogen in Recharge (SONIR)
Nelson, Pope & Voorhis, LLC Microcomputer Model

April 7, 2020

INTRODUCTION

SONIR is a microcomputer model developed by Charles J. Voorhis, CEP, AICP and copyrighted with the Library of Congress for exclusive use by Nelson, Pope & Voorhis, LLC (NP&V) in order to simulate the hydrologic water budget of a site and determine total nitrogen and nitrogen present in recharge in connection with land use projects. The model was developed on the Microsoft Excel Spreadsheet (trademark of Microsoft Products) for IBM (trademark of International Business Machines, Inc.) or compatible Personal Computers capable of running Excel. SONIR is updated periodically by NP&V to account for updated references and data in keeping with industry standards and environmental changes. NP&V is a professional environmental planning consulting firm with expertise in water resource management and impact assessment, nitrogen budget modeling, watershed management plans, and groundwater, soil and air sampling and environmental monitoring. Firm qualifications are provided in **Attachment A**.

Nitrogen has been identified as a source of contamination primarily from sanitary discharge and lawn fertilization. Nitrogen is of concern as a drinking water contaminant, and there is an established health limit of 10 milligrams per liter (mg/l) in drinking water. Nitrogen is also of concern in surface water, as it is a nutrient that when present in high concentrations can cause algal blooms (including harmful algal blooms, HABs), resulting in biological oxygen demand as algae is biologically decomposed as well as unsafe and potentially toxic conditions in the case of cyanobacteria. Depleted oxygen in surface waters causes conditions unfavorable to fish species and can result in extremely undesirable aesthetic impacts, primarily related to odors. Accordingly, it is necessary to understand the concentration of nitrogen in recharge as well as nitrogen load, as related to a proposed site development, examination of mitigation measures and comparison of alternatives.

Utilizing a mass-balance concept, and applying known hydrologic facts and basic assumptions, it is possible to predict the concentration of nitrogen in recharge to the shallow aquifer underlying a given site. This prediction can in turn be used to determine impacts and significance of impacts in consideration of hydrogeologic factors. Similar techniques have been used to simulate nitrogen in recharge as published by the New York State Water Resources Institute, Center for Environmental Research at Cornell University, Ithaca, New York (**Hughes and Pacenka, 1985**). SONIR is intended to provide a more versatile model based upon the BURBS Mass-Balance concept. SONIR allows for use of the model to predict nitrogen impact from many sources including sewage treatment plants, and further allows for determination of a wider variety site coverage and recharge components under the hydrologic water budget section. SONIR has more versatility in the input of information, and also provides a printout of each step performed by the model, in order for regulatory agencies and review entities to understand how values are derived.

This text describes in detail the definition of terms, supported by referenced information regarding input of data for the simulation. The concept of determining the concentration of nitrogen in recharge involves a predication of the weight (mass) of nitrogen introduced to the site, as compared to the quantity of recharge resulting from precipitation and wastewater water discharge. Losses due to evapotranspiration and runoff must be accounted for in the simulation. The values and relationship associated with these parameters determines the quantity of recharge which enters the site. The prediction is generally annualized due to the availability of average annual hydrologic data; however, data input can be determined on a seasonal basis if information is available.

The model includes four (4) data sheets identified as follows:

Data Input Field - Sheet 1
Site Recharge Computations - Sheet 2
Site Nitrogen Budget - Sheet 3
Nitrogen in Recharge Output Field - Sheet 4

All information required by the model is input in Sheet 1- Data Input Field. Sheets 2 and 3 utilize data from Sheet 1 to compute the Site Recharge and the Site Nitrogen Budget. Sheet 4 utilizes the total values from Sheets 2 and 3 to perform the final Nitrogen in Recharge computations. Sheet 4 also includes tabulations of all conversion factors utilized in the model.

It should be noted that the simulation is only as accurate as the data which is input into the model. An understanding of hydrologic principles is necessary to determine and justify much of the data inputs used for water budget parameters. Further principles of environmental science and engineering are applied in determining nitrogen sources, application and discharge rates, degradation and losses, and final recharge. Users must apply caution in arriving at assumptions in order to ensure justifiable results.

Since the preparation of the Draft EIS, information has become available from the Long Island Nitrogen Action Plan (LINAP), which is useful updating nitrogen budget model assumptions. LINAP included a metadata analysis of all available information to establish recommended nitrogen application rates, leaching rates, population data, pet waste assumptions and updated methods to determine atmospheric deposition. LINAP assumptions were received from the Suffolk County Department of Health Services and the New York State Department of Environmental Conservation as of January, 2017, and are used where appropriate for many updated nitrogen budget analyses in SONIR. A copy of the LINAP assumptions is included as **Attachment B** to this SONIR Model User's Guide.

SITE RECHARGE COMPUTATIONS

Overview

SONIR utilizes the basic hydrologic equation for determining the quantity of recharge anticipated by subtracting recharge losses from total precipitation. The quantity of recharge resulting from a given site is determined using the hydrologic budget equation **(Koszalka, 1984; p. 19):**

$$R = P - (E + Q)$$

where:
R = recharge
P = precipitation
E = evapotranspiration
Q = overland runoff

The quantity of recharge must be determined for each type of land use existing on a site, in order to determine the resultant site recharge. Surfaces commonly considered include: impervious surfaces; turfed areas; and natural areas; however, SONIR allows for a variety of land cover types to be considered in the model. In addition, site recharge occurs as a result of irrigation and wastewater discharge. In cases where water is imported to a site via a public water system, this quantity of recharge must be considered as additional water recharged on site. SONIR allows for all of these recharge components to be included in the simulation. Many sites have fresh surface water in the form of lakes and ponds. Precipitation falls upon these surfaces; however, such features generally act as a mechanism for water loss as a result of evaporation. SONIR includes a Water Area Loss component in determining the site Hydrologic Water Budget and in computing recharge nitrogen.

Data Input - Sheet 1

The following provides a discussion of data sources and assumptions associated with the hydrologic water budget, corresponding to the Data Input Field in Sheet 1 of SONIR:

1. *Area of Site* - The total area of the site (in acres) that is capable of recharging precipitation is entered in this data cell. For sites that include tidal wetlands, the area that is inundated by tidal waters should be excluded, as recharge from these areas should not be considered in the context of nitrogen simulation. For sites that include fresh surface water, the area can be included, provided evaporative water loss from surface water is considered by entering the acreage of surface water in Data Cell 15 noted below.

2. *Precipitation Rate* - Precipitation in the form of rainfall and snowmelt is determined using long-term recorded values from local weather stations. Cornell University maintains the Northeast Regional Climate Center, from which long-term precipitation data for Long Island weather stations is available. Monthly precipitation averages are published for the period 1951-1980 in Thornthwaite and Mather's Climatic Water Budget

Method **(Snowden and Pacenka, 1985).** More updated precipitation data from the NOAA National Climatic Data Center for the period 1981 to 2010 was obtained from http://www.currentresults.com/Weather/New-York/average-yearly-precipitation.php. The nearest precipitation monitoring stations included Bridgehampton and Brookhaven, NY. Bridgehampton is listed as 50.1 inches per year and Brookhaven is listed as 49.9 inches/year. Data entry is in inches. The more conservative lower value for Brookhaven, NY was used in this simulation.

3. *Acreage of Fertilized (SONIR allows multiple categories of fertilizer dependent vegetation to be entered)* - The total area fertilized (in acres) is entered in this Data Cell. This area includes all lawn/turf area that is irrigated and fertilized. If there is no lawn area, a value of zero (0) is entered.

4. *Fraction of Land in Fertilized* - No entry need be made in this Data Cell. SONIR will compute the Fraction of Land in Fertilized by dividing the lawn area by total area.

5. *Evapotranspiration from Fertilized* - Evapotranspiration is the natural water loss attributed to evaporation and plant utilization. Rainwater that is evaporated and transpired by plants is returned to the atmosphere as vapor. There are various methods for determining evapotranspiration, including direct measure and calculation. A commonly recognized method is the Thornthwaite and Mather Climatic Water Budget Method. Evapotranspiration rates for various locations on Long Island have been determined by the U.S. Geological Survey, as documented in: "Ground-Water-Recharge Rates in Nassau and Suffolk Counties, New York" **(Peterson, 1987; p. 10).** The following general rates as a percent of total precipitation are excerpted from that reference:

Location	Soil Type	Vegetation	ET (in)	ET (%)
Bridgehampton	sandy loam	shallow root	21.2	46.6
	silt loam	shallow root	21.4	47.2
LaGuardia	sand	shallow root	24.2	52.9
	clay loam	shallow root	25.4	55.5
	sandy loam	moderate root	26.2	57.2
JFK Airport	sand	shallow root	22.5	53.8
	clay loam	shallow root	23.9	57.3
	sandy loam	moderate root	25.0	60.0
Mineola	sand	shallow root	22.4	47.8
	sand-silt	shallow root	23.8	51.0
	sandy loam	moderate root	25.1	53.7
	sandy loam	orchards	25.5	54.5
Patchogue	fine sand	mature forest	25.5	53.5
Riverhead	sandy loam	shallow root	22.4	49.3
		orchards	24.8	54.7
Setauket	sandy loam	mature forest	26.8	57.9
Upton	silt loam	deep root	23.9	48.4
	sandy loam	moderate root	23.0	46.5

The most applicable rate for this project is 23.0 inches per year, based on the soils and land cover associated with Upton, NY.

6. *Runoff from Fertilized* - Runoff is the quantity of water that travels overland during a precipitation event. Soil infiltration capacity is the critical factor in determining runoff; however, factors such as slope and vegetation also determine runoff characteristics to a lesser extent on Long Island because of soil conditions. Less urbanized areas of Long Island with characteristically dry soils with groundcover will have a low runoff percentage as a function of total precipitation, as compared to the more urbanized portions of western Long Island. Peterson **(1984; p. 14)** estimates runoff as a percent of total precipitation for Nassau County (2.1 %); Suffolk County (0.7 %), and Long Island in general (1.0 %). If an average precipitation rate of 45-50 inches per year is assumed, runoff will vary from 0.31 to 0.94 inches. Fertilized areas would be expected to be in the higher end of the range. Judgements of higher and lower runoff can be made on a site-specific basis depending upon slope and groundcover types.

7. *Acreage of Unvegetated* - The total acreage of unvegetated area is entered in this Data Cell. This area includes sand, barren soils, and porous drives and trails. If there is no unvegetated area, a value of zero (0) is used.

8. *Fraction of Land Unvegetated* - No entry need be made in this Data Cell. SONIR will compute the Fraction of Land Unvegetated by dividing the unvegetated area by total area.

9. *Evapotranspiration from Unvegetated* - Evapotranspiration from Unvegetated areas is determined to be 30% of the evapotranspiration for vegetated surfaces due to lack of groundcover vegetation.

10. *Runoff from Unvegetated* - The runoff coefficients noted in the discussion for Data Cell 6 above, are applied to unvegetated areas on a site-specific basis. Runoff in the middle to the higher end of the range (2.1% of precipitation) is expected due to lack of groundcover vegetation.

11. *Acreage of Water (this category could include irrigation ponds and/or other surface water features)* - SONIR considers evaporation from surface water in the computation of site recharge. Surface water, particularly groundwater fed lakes and ponds are a source of water loss in the water budget. The quantity of fresh surface water (in acres) is entered in this Data Cell.

12. *Fraction of Land in Water* - No entry need be made in this Data Cell. SONIR will compute the Fraction of Water on the site by dividing the water area by total area.

13. *Evaporation from Water* - Surface water features will cause evaporation of water in excess of normal evapotranspiration as documented by **Warren et al, 1968,** Hydrology of Brookhaven National Laboratory and Vicinity Suffolk County, New York. It is estimated that the upper limit of evaporation from a large free-water surface is approximately 30.00 inches per year **(Warren et al, 1968; p. 26).** This value is entered in Data Cell 17 as the most accurate approximation.

14. *Makeup Water* - SONIR allows for consideration of the impact of man-made lakes on site recharge. Lakes are generally lined with an impermeable material. Evaporation occurs from the surface of the lake at a rate of 30.00 inches per year. In order to maintain a constant water level, an on-site well is generally installed to provide make-up water to the lake or pond. The quantity of make-up water is equivalent to the quantity of evaporation, given the fact that the function of the well is to replace water that is evaporated. Therefore, for cases where make-up water is used to maintain a constant water level, a value of 30.00 inches per year is entered in Data Cell 18.

15. *Acreage of Natural* - The total quantity of natural area (in acres) is entered in this Data Cell. This area includes naturally vegetated areas such as woodland, meadow, etc. If there is no natural area, a value of zero (0) is entered.

16. *Fraction of Land Natural* - No entry need be made in this Data Cell. SONIR will compute the Fraction of Land Natural by dividing the natural area by total area.

17. *Evapotranspiration from Natural* - Evapotranspiration from Natural areas is determined in the same manner as described for Data Cell 5 above.

18. *Runoff from Natural* - The runoff coefficients noted in the discussion for Data Cell 6 above, are applied to natural areas on a site specific basis. Generally lower values in the range of 0.7 % of precipitation are expected due to groundcover and canopy vegetation.

19. *Acreage of Impervious* - The total area of impervious surface (in acres) is entered in this Data Cell. This area includes paved driveways, parking areas, roofs, roads, etc. If there are no impervious surfaces, a value of zero (0) is entered.

20. *Fraction of Land Impervious* - No entry need be made in this Data Cell. SONIR will compute the Fraction of Land in Impervious by dividing the impervious area by total area.

21. *Evaporation from Impervious* - Impervious surfaces will allow water to evaporate, particularly during summer months. There is no vegetation; therefore there is no transpiration by plants. Evaporation from Impervious is estimated to be approximately 10 % of total precipitation **(Hughes and Porter, 1983; p. 10).** This value accounts for evaporation from parking lots and other surfaces during summer months, averaged over the entire year. This indicates that recharge/runoff would comprise the remaining 90% of precipitation. This assumption coincides with most drainage computations required by Code Subdivision Regulations for determined leaching pool capacity.

22. *Runoff from Impervious* - The approximation of Evaporation from Impervious would indicate that recharge/runoff would comprise the remaining 90% of precipitation, as there are no other losses from impervious surfaces. In consideration of paved areas, runoff is not transported off the site or to surface water as a loss. Runoff is diverted to leaching pools and allowed to re-enter the hydrologic system beneath a given site. Therefore, in terms of site recharge computations, the value for Runoff from Impervious is zero (0).

23. *Acreage of Other Area (SONIR provides this portion of the model to customize additional cover types)* - This is a general category which can be used to include additional groundcover types in the simulation. Acreage of Other Area is entered (in acres). This Data Cell can be used to include site recharge considerations from a portion of the site that has different hydrologic properties, such as rain gardens, a moist hardwood forest or vegetated freshwater wetland, where evapotranspiration would be high and runoff would be extremely low or is a placeholder to customize data input/analysis.

24. *Fraction of Land in Other Area* - No entry need be made in this Data Cell. SONIR will compute the Fraction of Land in Other Area by dividing the land in other area by total area.

25. *Evapotranspiration from Other Area* - Evapotranspiration from Other areas is determined in the same manner as described for Data Cell 5 above. Value can be varied depending upon the hydrologic properties of the groundcover type. For rain gardens, this value would be high and similar to wetlands and surface water at 30 inches/year.

26. *Runoff from Other Area* - The runoff coefficients noted in the discussion for Data Cell 6 above, are applied to Other Areas on a site-specific basis. Value can be varied depending upon the hydrologic properties of the groundcover type. For rain gardens, no runoff would be expected.

27. *Acreage of Land Irrigated* – Use of water for irrigation purposes is an additional site recharge component not considered in any of the Data Cells above. The quantity of land irrigated on a given site is entered in this Data Cell (in acres).

28. *Fraction of Land Irrigated* - No entry need be made in this Data Cell. SONIR will compute the Fraction of Land Irrigated by dividing the Land Irrigated area by total area.

29. *Irrigation Rate* - The rate of irrigation must be entered in this Data Cell (in inches). Hughes and Porter **(1983; p. 19)** indicated that lawn irrigation is estimated to be about 5.5 inches per year; however, many sources recommend that irrigation be used to supplement natural rainfall to ensure that at least 1 inch of water is applied per week (http://www.gardening.cornell.edu/homegardening/scene7866.html). Assuming a growing season after spring when rainfall is more abundant and summer is hotter with typically less rainfall than spring, a 16-24 week period from May through October is used, with an irrigation rate of 1 inch per week. This value (16-24 inches) is entered in Data Cell 29 as the most accurate approximation for subdivision use. Golf courses receive more irrigation. Specific calculations find that Indian Hills uses 21,175,842 gallons/year. This equates to 27.74 inches per year over the irrigated area of 28.11 acres based on the following calculations:

Parameter	Units
21,175,842	gallons/yr
28.11	acres
1,224,472	SF
2.3118528	ft/irrigation
2830798.1	CF irrigation
7.48052	CF/gallon
21,175,842	gallons/year
27.74	inches/yr

30. *Number of Dwellings* - The number of dwellings is entered in this Data Cell in order to allow for computation of wastewater disposal from residential use. Wastewater imported to a site, or even withdrawn from on-site wells and recharged through sanitary effluent is an additional recharge component that must be considered. If the project is for a commercial use or utilizes a denitrification system, the number of dwellings should not be entered in the Data Entry Field, as the wastewater flow will include recharge and nitrogen components. The DEIS contains information regarding the number of dwellings.

31. *Water Use per Dwelling* - The water use should correspond to the total site non-irrigation water use, divided by the number of units. An average of 300 gpd is used for this analysis.

32. *Wastewater Design Flow (units)* - No entry need be made in this Data Cell if the analysis is for single family homes. SONIR will compute the Wastewater Design Flow by multiplying the Number of Dwellings by the Water Use per Dwelling. If multifamily homes, the wastewater design flow should be used.

33. *Wastewater Design Flow* - SONIR permits the consideration of recharge and nitrogen input based on wastewater design flow if this is more appropriate than a determination based on number of units. This could include residential wastewater flow (e.g., combined units and clubhouse), commercial projects, denitrification systems and sewage treatment plants. SCDHS design flow factors are typically used to determine wastewater design flow. Once computed, the anticipated wastewater flow is entered in this Data Cell.

Site Recharge Computations - Sheet 2

Once data entry is complete for Site Recharge Parameters, SONIR will complete a series of detailed Water Budget computations for the overall site. The following describes the computations that are performed by the model:

A. *Fertilizer Area Recharge* - Fertilizer Area Recharge is determined by use of the basic Hydrologic Budget Equation [R = P - (E + Q)] as defined previously. The quantity of recharge determined by this method is then multiplied by that portion of the site occupied

by Lawn Area to determine the component of Lawn Area Recharge in overall site recharge.

B. *Unvegetated Area Recharge* - Unvegetated Area Recharge is determined by use of the basic Hydrologic Budget Equation. The quantity of recharge determined by this method is then multiplied by that portion of the site occupied by Unvegetated Area to determine the component of Unvegetated Area Recharge in overall site recharge.

C. *Water Area Loss* - The Hydrologic Budget Equation is modified to consider Water Area Loss. This is particularly useful in water quantity stressed areas of Long Island. If runoff (Q) is considered be zero (0), then lake storage/recharge without make-up water would be Precipitation minus Evaporation (P - E). The resultant quantity of lake storage/recharge is then reduced by the amount of make-up water (M). The final quantity of loss is then multiplied by that portion of the site occupied by water to determine the component of water loss as related to the overall site water budget.

D. *Natural Area Recharge* - Natural Area Recharge is determined by use of the basic Hydrologic Budget Equation. The quantity of recharge determined by this method is then multiplied by that portion of the site occupied by Natural Area to determine the component of Natural Area Recharge in overall site recharge. This area can also include land that is revegetated to natural conditions.

E. *Impervious Area Recharge* - Impervious area recharge is also determined using the Hydrologic Budget Equation; however, the value for runoff is zero (0) due to the fact that runoff is controlled by conveyance to on site leaching facilities or is allowed to runoff into depressions where runoff is recharged on site.

F. *Other Area Recharge* - Other Area Recharge is determined by use of the basic Hydrologic Budget Equation. The quantity of recharge determined by this method is then multiplied by that portion of the site occupied by Other Area to determine the component of Other Area Recharge in overall site recharge.

G. *Irrigation Recharge* - Irrigation recharge is an additional recharge component artificially added on sites where irrigation occurs. This quantity is determined in the same manner as the Hydrologic Water Budget except that the irrigation rate (in inches) is substituted for precipitation. The resultant recharge is multiplied by the area of the site that is irrigated, in order to determine the Irrigation Recharge in overall site recharge.

H. *Wastewater Recharge* - Wastewater is also a recharge component artificially added to a site. SONIR annualizes the wastewater design flow and assumes it is applied over the entire by multiplying Wastewater Design Flow by the Area of the Site, resulting in a per foot measure of wastewater over the site. This is converted to inches to be included in overall site recharge.

Once the eight (8) series of Site Recharge Computations are complete, SONIR totals each individual component to determine Total Site Recharge. The sum of these recharge

contributions, is that quantity of water that is expected to enter the site on an annual basis due to precipitation, after the development is completed. This value is important in determining the concentration of nitrogen in recharge, and is important as a means of determining hydrologic impacts of a project in terms of changes to site recharge.

SITE NITROGEN BUDGET

Overview

The total nitrogen released on a given site must be determined in order to provide a means of simulating nitrogen in recharge. Nitrogen sources include: sanitary nitrogen; fertilizer nitrogen; pet waste nitrogen; precipitation nitrogen; and water supply nitrogen (wastewater and irrigation). The total of these quantities represents total site nitrogen.

Data Input - Sheet 1

The following provides a discussion of data sources and assumptions associated with the nitrogen budget, corresponding to the Data Input Field in Sheet 1 of SONIR:

1. *Persons per Dwelling* – For residential projects the number of persons per dwelling is a demographic multiplier used in the determination of human population of a site. The US Census Bureau publishes data for household population. The average population per household for a senior development is 1.5 persons per dwelling. For single family homes, the household population is based on US Census data for the Fort Salonga Census Designated Place (CDP), which is 2.89 persons per household.[1]

2. *Nitrogen per Person per Year* – For untreated wastewater, annual nitrogen per person is a function of nitrogen bearing waste in wastewater. For residential land use the population of the development is determined and the nitrogen generated is assumed to be 10 pounds per capita per year **(Hughes and Porter, 1983; p. 8).** This value is also consistent with LINAP assumptions.

3. *Sanitary Nitrogen Leaching Rate* - For normal residential systems, Porter and Hughes report that 50% of the nitrogen entering the system is converted to gaseous nitrogen and the remainder leaches into the soil **(Porter and Hughes, 1983; p. 14).** LINAP provides updated values for leaching from a conventional sanitary system, finding that there is 6% loss/attenuation from the septic tank and 10 percent attenuation from leaching rings/plume, indicating an 84% leaching rate. This rate is used for conventional sanitary system leaching.

4. *Area of Land Fertilized 1* - The area of land fertilized is input in Data Cell 4. This value may correspond to the Acreage of Lawn and/or the Acreage of Land Irrigated, but is not necessarily the same value. This entry should be determined on a site-specific basis.

[1] https://www.census.gov/quickfacts/fortsalongacdpnewyork

5. *Fertilizer Application Rate 1* - Fertilizer nitrogen is determined by a fertilizer application rate over a specified area of the site. The fertilizer application rates vary depending upon the type of use. The following table indicates the rate of fertilization as a function of use as excerpted from the Non-Point Source Management Handbook **(Koppelman, 1984; Chapter 5, p.6):**

Residential (contract)	1.5 lbs/1000 sq ft
Residential (unmanaged)	2.3 lbs/1000 sq ft
Commercial	3.5 lbs/1000 sq ft
Golf Course	3.5 lbs/1000 sq ft
Sod Farms	4.0 lbs/1000 sq ft
Recreational Lands	0.2 lbs/1000 sq ft

If a use has a Fertilizer Management Plan then the plan should be consulted for application rates. In addition, a commercial landscaping firm has been interviewed to determine trends in commercial fertilizer application. Various fertilizer formulations are used including 10-6-4, 16-4-8 and 20-10-5 (nitrogen-phosphate-potash) depending upon season. Heavier nitrogen application rates are generally used in the spring. Fertilizer used is 50% organic nitrogen. This is applied in a dry form approximately 2-3 times per year, and a 50-pound bag is applied over approximately 16,000 square feet. Based on this rate if 20-10-5 nitrogen were applied in the spring, and 16-4-8 were applied during summer and fall, this would result in an application rate of 1.5-2.1 pounds per 1000 square feet. The high of this range is a conservative value based on three applications of relatively high nitrogen fertilizer. Judgment must be used to determine the application rates per above and further review of references as appropriate or for specific instances. LINAP fertilization rates are found in **Attachment B**; however, there is no rate for commercial application.

For golf course use, specific information may be consulted regarding empirical data of fertilizer applied for existing golf courses, and/or planned application rates for a given golf course. For Indian Hills, actual/empirical data is available for 2019 fertilizer application rates. In addition, maximum application rates are provided from the golf course superintendent. The actual rates are less than half the maximum application rates for 2018, therefore, use of maximum application rates is considered to be a very conservative factor to use. The weighted average for greens, fairways and tees is provided below for actual rates and maximum rates. It is noted that rough and mowed areas of the course do not receive any appreciable amount of fertilization.

Weighted Average Application Rate (2018 applications)

Golf Coverage	Ac	SF	/1000 SF	Rate	lbs
Greens	2.47	107,593	108	0.91	97.91
Fairways	23.87	1,039,777	1,040	0.62	644.66
Tees	1.77	77,101	77	1.42	109.48
Totals	28.11	1,224,472	1,224	n/a	852.06
Weighted Average					0.70

Weighted Average Application Rate (maximum expected)

Location	Ac	SF	/1000 SF	Rate	lbs
Greens	2.47	107,593	108	3.00	322.78
Fairways	23.87	1,039,777	1,040	1.500	1559.7
Tees	1.77	77,101	77	2.00	154.2
Totals	28.11	1,224,472	1,224	n/a	2036.6
Weighted Average					1.66

For agricultural use, Porter & Hughes **(1983)** provides information on N-fertilizer application rates that were researched for the study "Land Use and Groundwater Quality in the Pine Barrens of Southampton." Various farm uses were assessed and it was found that nurseries fertilized at a rate of 168.3 lbs/acre of nitrogen (or 3.86 lbs/1000 SF), potato forms applied 175 lbs/acre of nitrogen (4.02 lbs/1000 SF) and vegetable crops applied 140 lbs/acre of nitrogen (3.21 lbs/1000 SF). Other advancements in farming practice are expected to have occurred, such that application rates are less than what was found in 1983.

6. *Fertilizer Nitrogen Leaching Rate 1* - Nitrogen applied as fertilizer is subject to plant uptake (20 to 80%; 50% on average) and storage in thatch and soils (36 to 47%), thereby reducing the total amount of nitrogen leached. The percentage of plant uptake and storage are based on studies cited in the LIRPB's Special Groundwater Protection Area Plan. Those studies estimated a conservative nitrogen leaching rate of 14-15%. LINAP leaching rates are found in **Attachment B**. LINAP estimates leaching rates from residential lawn turf to be 30% and golf course leaching rates to be less, at 20%. Further work by the Cornell University School of Integrative Plant Science, Horticulture Section was consulted as well as references from A. Martin Petrovic, Ph.D. at Cornell University **(1990, Petrovic, A.M.)**. Further review of references from this source finds a useful comparison of turfgrass fertilizer leaching rates from various land cover types including golf courses and lawns. When considering four (4) field studies of golf course fertilizer nitrogen leaching, the leaching rates ranged from 0.02% to 13.2% and averaged 3%. When considering field studies for lawn nitrogen leaching rates, the average was 9.61% **(2008, Petrovic, A.M.)**. The purpose of the document was to advise the Massachusetts Estuary Program on appropriate turfgrass leaching rates for the Pleasant Bay Region on Cape Cod.[2] Though lawn and golf course leaching rates were not substantially different, the results did identify residential lawns as having a higher leaching average leaching rate based on field studies. Local conditions should be considered in terms of the level of detail needed for nitrogen budget analysis; however, a range of 5-10% for golf courses (noted to be greater than the average of 3% from field studies) is supported for golf courses, particularly when subject to a Golf Course Management plan to properly prepare soils and turf for maximum nutrient uptake. The DEIS for Indian Hills includes an extensive golf course management plan and the existing professional golf course superintendent at IHC is trained and manages the course for minimum fertilization and maximum uptake.

[2] Hydrogeologic conditions on Cape Cod are similar to Long Island due to glacial origin, bays and estuaries.

7. *Area of Land Fertilized 2* - More than one fertilizer nitrogen input is provided in order allow consideration of mixed use and/or golf course projects where land is fertilized at different rates.

8. *Fertilizer Application Rate 2* - Fertilizer Application Rates for this entry can be determined based upon Data Cell 5 above.

9. *Fertilizer Nitrogen Leaching Rate 2* - Fertilizer Nitrogen Leaching Rates can be determined based upon Data Cell 6 above.

10. *Outdoor Cat Population* – This section of SONIR considers LINAP information for pet waste nitrogen. Pet waste nitrogen results from the excretion of domestic pets in the outside environment. There is relatively little definitive information concerning this nitrogen source; however, several references were located and are analyzed herein. The 208 Study provides a table of nitrogen concentration in manure for various animals, not including dogs or cats. Total nitrogen values in the range of 0.30-0.43 lbs/day/1000 lbs live weight are reported for cattle, sheep and horses **(Koppelman, 1978; Animal Waste report p. 3).** It is assumed that dogs constitute the major source of animal waste that would be present in the yards of residential developments. Cat waste would be significantly less due to the lesser live weight of cats and the fact that many cat owners dispose of cat waste in solid waste by using an indoor litter box. If an average of 0.35 lbs of nitrogen is assumed for dogs, and an average of 25 pounds live weight is assumed per dog, then the total annual nitrogen per pet would be 3.19 lbs/year. The only other reference identified for this User Manual that approximates nitrogen in pet waste is Land Use and Ground-Water Quality in the Pine Barrens of Southampton **(Hughes and Porter, 1983; p. 10).** This reference assumed an application rate of 6.5 lbs/acre of nitrogen. Pet waste was assumed to be deposited evenly over all turf. This assumption was not correlated to population density or pet density, but only to turfed acreage. In comparison of the two values, the per pet value corresponds to approximately 2 turfed acres. For the purpose of this model, the value of 3.19 lbs/pet/year is considered to be the most justifiable value for pet waste and is entered in this Data Cell.

    Pet waste is also subject to a leaching rate factor. Pet waste is generally found to be a minor contributor of nitrogen in an overall nitrogen budget. A conservative leaching rate of 50% of the nitrogen applied to the ground to be removed through N reduction processes.

    LINAP examined pet waste and has revised some of the assumptions that came from prior reports based on a metadata search of available literature through January 2017. LINAP estimates indoor and outdoor cat populations at 1.16 cats/household and 0.74 cats/household, respectively, and an outdoor dog population of 1.4 dogs/household. LINAP further estimates the pounds of nitrogen per year at 3.22 lbs/year for cats and 4.29 lbs/year for dogs, and further estimates a volatilization rate of 75% or a leaching factor 25%. These updated assumption values are used in this document, subject to consideration of the type of land use anticipated. Single family residential use would be expected to have a higher population of cats, and greater potential for outdoor occupancy.

Multiple family use would be expected to have a lower population of cats and a lower likelihood of outdoor pet occupancy, with more indoor cats and therefore greater use of litter boxes and alternative disposal of cat waste (i.e., landfill disposal as compared to land surface defecation). For multiple family and senior citizen MF use, a lower cat population would be expected (on the order of one-quarter), and some uses may prohibit cats. Adjustments can be made as needed to reflect practical rates and expected conditions.

11. *Cat Waste Nitrogen Load* - This is quantified as 3.22 lbs/year of nitrogen per cat for outdoor cats per LINAP. This would apply to single family residential use. For multiple family use, indoor cats are assumed.

12. *Outdoor Dog Population* – This is quantified as 1.4 dogs/household per LINAP. This would apply to single family residential use. For multiple family use, a lower dog population would be expected, and some uses may prohibit dogs. Adjustments can be made as needed to reflect practical rates and expected conditions.

13. *Dog Waste Nitrogen Load* – This has been updated to 4.29 lbs/year of nitrogen per dog per LINAP. This would apply to single family residential use. For multiple family use, less dogs as well as effective "pick up after your pet" programs are assumed, resulting in one-quarter the expected Dog Waste Nitrogen Load for multifamily and senior MF housing.

14. *Pet Waste Nitrogen Leaching Rate* – This has been updated to 25% based on LINAP assumptions, which seem reasonable due to waste deposited on the ground and subject additional "weathering" and volatilization in the surface environment prior to recharge.

15. Adjusted Pet Waste (if applicable)(days/year occupied) – This entry allows for an adjustment for seasonal communities where year round occupancy is not expected. An estimated occupancy rate is inserted in this cell.

16. *Area of Land Irrigated* - No entry need be made in this Data Cell. This value is the same as Data Cell 27 of the Site Recharge Parameters and SONIR will transfer the data entry to this Cell.

17. *Irrigation Rate* - No entry need be made in this Data Cell. This value is the same as Data Cell 29 of the Site Recharge Parameters and SONIR will transfer the data entry to this Cell.

18. *Irrigation Nitrogen Leaching Rate* - Hughes and Porter **(1983; p. 10)** states "plant uptake and gaseous losses are assumed to remove at least 85% of the nitrogen entering in precipitation." Irrigation nitrogen would be expected to be subject to the same losses as applied to fertilizer leaching; therefore, a leaching rate in the range of 10-15% can be assumed and entered in this Data Cell.

19. *Atmospheric Nitrogen Application/Load* – This section of SONIR is changed from the Draft EIS, based on LINAP information. The Draft EIS assessed Precipitation Nitrogen using the concentration of Nitrogen in Precipitation and the Precipitation Nitrogen Leaching Rate described in the Draft EIS as follows: "*Nitrogen in Precipitation* - Groundwater nitrogen is partially derived from rainwater. Nitrate-nitrogen concentrations in precipitation have been reported to be on the order of 1-2 mg/l in Nassau and Suffolk Counties **(SCDHS, 1987; p. 6-4)**, with some evidence of decrease since preparation of the SCCWRMP. A conservative value of 0.75 mg/l was used." "*Precipitation Nitrogen Leaching Rate*, which was described as follows: "A slightly higher nitrogen leaching rate may be appropriate for precipitation which falls generally on natural as well as turfed surfaces. While turfgrass leaching has been extensively documented and found to reduce leaching as a result of plant uptake and thatch/root zone processes, natural areas in sandy soils may result in less uptake. A factor of 15% is applied to precipitation nitrogen as based on Hughes and Porter) **(1983; p. 10)**." For the Draft EIS, there was also a *Nitrogen in Water Supply* factor, described as follows: "The concentration of Nitrogen in Water Supply determines the quantity of nitrogen that enters the site as a result of irrigation nitrogen and wastewater flow. Local water supply data should be utilized if available, otherwise a value of between 1 and 2 mg/l could be utilized."

    LINAP has conducted more updated research regarding Atmospheric Deposition. An Atmospheric Deposition Application/Load is assumed to be 0.041 lbs/1000 SF of land area. This is then subject to various leaching rates depending on the type of groundcover.

20. *Atmospheric N Leaching Rate (Natural/Wetlands)* – The estimated leaching rate value for natural area/wetlands is 25% per LINAP.

21. *Atmospheric N Leaching Rate (Turf 30%/Golf 20%)* – The estimated leaching rate value for turfed areas is 30% and for golf course turfed areas is 20% per LINAP.

22. *Atmospheric N Leaching Rate (Agriculture; Impervious; Other)* - Agricultural land leaching is estimated to be 40% as are other surfaces not specifically identified as natural, wetlands, turf or golf turf.

23. *Nitrogen in Water Supply* – An entry cell for nitrogen in water supply is provided if this is needed for analysis.

24. *Nitrogen in Commercial/STP Flow 1* - This data entry allows SONIR to compute the quantity of nitrogen resulting from commercial discharge, denitrification systems and/or sewage treatment plants. Total nitrogen in community wastewater is identified as having a total nitrogen concentration of 20 mg/l in weak effluent; 40 mg/l in medium strength effluent, and 85 mg/l in strong effluent **(Metcalf & Eddy, Inc, 1991).** . For comparison purposes, it is recommended that a value of 50 mg/l be used for total nitrogen

concentration in sanitary systems.[3] Properly functioning denitrification systems and sewage treatment plants are capable of reducing total nitrogen to less than 10 mg/l in accordance with discharge limitations. A value of 10 mg/l can be entered in this data cell for such systems or other applicable value dependent on specific treatment efficiencies. A value of 8 mg/l is commonly used to demonstrate improved treatment efficiencies. Alternative wastewater systems for single family homes are being considered in Suffolk County; such systems are achieving treatment to reduce nitrogen to the range of 19 mg/l. The SONIR model computes the number of pounds of nitrogen in sanitary discharge as a function of concentration. The absolute nitrogen is utilized in the model; however, it must recognized that from the discharge point, nitrogen is nitrified through conversion of ammonia to nitrate in the leaching area beneath the discharge point. Further, natural transformation in the form of denitrification occurs as a result of bacteria. This causes release of nitrogen gas and may account for further reduction of 50% or more subsequent to discharge **(Canter and Knox, 1979; pp. 77-78; Hughes and Porter, 1983; p. 14).** As a result SONIR is conservative in predicting the concentration of nitrogen in recharge, and when natural denitrification of sanitary effluent is considered, actual concentration would be less.

25. *Nitrogen in Commercial/STP Flow 2* – An additional entry cell is provided for an alternative concentration should this be needed for analysis.

Site Nitrogen Budget - Sheet 2

Once data entry is complete for Nitrogen Budget Parameters, SONIR will complete a series of detailed computations to determine the individual component of nitrogen from each source and the total nitrogen for the overall site and use. The following describes the computations that are performed by the model:

A. *Sanitary Nitrogen - Residential* - SONIR establishes the site population using the number of units on the site, and the demographic multiplier. The nitrogen load factor is then applied and reduced by the leaching rate, resulting in the total residential nitrogen component. If the project is for a commercial use or residential sanitary wastewater flow is used to determine nitrogen from residential, then the resultant value should be zero (0).

B. (B) *Cat Waste Nitrogen* – The pet waste nitrogen was determined on a per pet basis; however, the number of pets for a given residential project must be determined. In order to correlate the number of pets to human population, a ratio was determined using information contained in the 208 Study, wherein it was estimated that there is 1 dog per 5 residents in suburban areas and 1 dog per 7 residents in urban areas **(Koppelman, 1978; Animal Waste Report, pp. 6).** This

[3] SCDHS General Guidance Memo #28 includes guidelines for siting proposed or expanded STPs; this memo indicates: "A total nitrogen concentration of 50 mg/l may be used when calculating the equivalent mass loadings."

results in an average number of dogs based upon of 17% of the human population. Accordingly, this multiplier is used based upon the population of a land use project in order to estimate the nitrogen waste from pets. The pet waste nitrogen is subject to reduction as a function of the leaching rate, leading to the total pet waste nitrogen in pounds."

Updated analysis s provided based on LINAP assumptions which determine both Cat Waste and Dog Waste Nitrogen by using an updated pet population (number of pets per dwelling), an updated pet waste nitrogen load and an updated leaching rate. Cat Waste Nitrogen uses the numbers inserted in the Nitrogen Budget Parameter sheet in SONIR as described above.

(B') *Dog Waste Nitrogen* - Dog Waste Nitrogen is also determined by using an updated pet population (number of pets per dwelling), an updated pet waste nitrogen load and an updated leaching rate. Dog Waste Nitrogen uses the numbers inserted in the Nitrogen Budget Parameter sheet in SONIR as described above.

C. *Sanitary Nitrogen (Commercial/STP)* - SONIR utilizes the Commercial/STP Flow that is converted to liters and multiplied by the nitrogen concentration in waste. This provides a weight of nitrogen in milligrams, which is converted to pounds for the total nitrogen from this component.

D. *Water Supply Nitrogen* (other than wastewater, if applicable) - SONIR utilizes the residential wastewater design flow to compute the weight of nitrogen contributed from the water supply. The method of calculation is the same as Sanitary Nitrogen (Commercial/STP). For commercial projects, this value is accounted for in the Commercial/STP Flow and as a result, the value is zero (0).

E. *Fertilizer Nitrogen 1 (Fertilized Landscaping)* - This calculation utilizes data entry from the Area of Land Fertilized 1, in the Data Input Field, to determine the weight of fertilizer nitrogen applied to the area. The area is multiplied by the application rate and reduced by the leaching rate documented previously to arrive at total weight.

F. *Fertilizer Nitrogen 2 (Optional Fertilization Rate)* - If fertilization rates vary, the Area of Land Fertilized 2, is utilized to determine nitrogen from this source.

G. *Atmospheric Nitrogen* – Updated analysis is provided based on LINAP assumptions which determine Atmospheric Deposition using the Nitrogen Budget Parameters outlined above. The deposition rate of 0.041 lbs/1000 SF is multiplied by the square footage of each cover type, and then subject to an individual leaching rate based on the cover type. Section G computes the resultant Atmospheric Deposition.

H. *Irrigation Nitrogen* - Although a very small component, the Irrigation Nitrogen is determined using the Irrigation Recharge R(irr) computed in the Site Recharge Computations, over the irrigated area of the site to produce a volume of irrigation recharge. The Irrigation Recharge value is used in order to account for reduction of recharge due to evapotranspiration, since this component is only intended to determine nitrogen leaching into soil as a result of irrigation nitrogen in the water supply. This value is converted to liters and multiplied by the concentration of nitrogen in irrigation water supply. The Irrigation Nitrogen Leaching Rate (expected to the same as for precipitation) is applied to the weight to determine the total nitrogen from this source.

Once the eight (8) series of Site Nitrogen Budget computations are complete, SONIR totals each individual component to determine the Total Site Nitrogen. This value is used in determining the weight per volume ratio of nitrogen in recharge as computed in Sheet 4 of the SONIR model.

FINAL COMPUTATIONS AND SUMMARY

SONIR utilizes data generated in Sheets 2 and 3 of the model to compute a mass/volume ratio for nitrogen in recharge. Nitrogen in recharge is converted from pounds to milligrams in order to provide units compatible for mass/volume concentration. Likewise, the quantity of site recharge is applied over the site in order to determine an overall volume number for site recharge. This is then converted to liters. The final computation divides the total weight of nitrogen in milligrams, by the total volume of recharge in liters, to arrive at the Nitrogen in Recharge ratio in milligrams per liter (mg/l). This concentration represents the Final Concentration of Nitrogen in Recharge, which is highlighted on Sheet 4.

Sheet 4 also provides a site recharge summary in order to compare recharge between natural conditions, a proposed project and/or alternatives. Total Site Recharge is presented in both inches, and as a volume in cubic feet/year, gallons/year and million gallons/year (MGY). The final sheet also summarizes the Conversions Used in SONIR. Conversions are standard conversion multipliers as found in standard engineering references.

◆ ◆ ◆ ◆ ◆

SONIR is a valuable tool allowing for versatile determination of site recharge as determined from many components of site recharge. SONIR determines the weight of nitrogen applied to a site from a variety of sources as well. SONIR is a fully referenced model utilizing basic hydrologic and engineering principals, in a simulation of nitrogen in recharge. Input data should be carefully justified in order to achieve best results. SONIR can be used effectively in comparing land use alternatives and relative impact upon groundwater due to nitrogen. By running the model for Existing Conditions, Proposed Project conditions and/or alternative land uses, comparison of impacts can be made and mitigation can be evaluated for consideration in land use decision-making. Questions, comments or suggestions concerning this model should be addressed to: Nelson, Pope & Voorhis, LLC, 572 Walt Whitman Road, Melville, New York 11747.

SIMULATION OF NITROGEN IN RECHARGE (SONIR)

NELSON, POPE & VOORHIS, LLC MICROCOMPUTER MODEL

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ATTACHMENT A

NP&V QUALIFICATIONS

NELSON, POPE & VOORHIS, LLC
WATERSHED ANALYSIS, SEQRA & PHASE I/II TESTING
QUALIFICATIONS STATEMENT

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About Nelson, Pope & Voorhis...

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Nelson, Pope & Voorhis, LLC (NP&V) was formed in 1997 and has grown in capabilities and size since that time. The merging of Charles Voorhis & Associates (13 year history) with Nelson & Pope (a 50-year tradition in engineering and related services) created an environmental planning firm with a wealth of experience to bring to complex environmental problem solving, planning and feasibility, resource assessment and site investigations.

NP&V serves governmental and private sector clients in preparing creative solutions in the specialized area of complex environmental project management and land use planning and analysis.

Nelson, Pope & Voorhis has the benefit of knowledge of local issues, local resources, and the passion to provide the very best solutions and strategies for the local area. This provides unparalleled knowledge of the application of the community planning process, comprehensive planning and SEQRA/NEPA Administration. The result is a team of highly compatible land use professionals that will get the job done in a manner that ensures real and implementable solutions.

NP&V employees are recognized as experts in environmental, land use and planning issues and have provided consulting services to various municipalities. NP&V encourages continuing education through participation in conferences and seminars for all staff and holds regular training luncheons utilizing APA and other training packages.

Nelson, Pope & Voorhis has a capable staff of professionals, including planners and economic analysts, ecologists, hydrologists, wetlands specialists and environmental professionals. When integrated with technical staff of Nelson & Pope, the team is expanded to include civil, sanitary and transportation engineers and land surveyors.

Nelson, Pope & Voorhis would appreciate the opportunity to discuss how we can assist you in achieving your goals. We are committed to providing quality environmental, planning and consulting services to all clients. This statement of qualifications is an introduction to the many services we provide with a focus on municipal services; the following pages contain a more detailed presentation of services offered by Nelson, Pope & Voorhis, as well as a sampling of completed projects and key staff resumes.

Call us at (631) 427-5665. We welcome the opportunity to serve your environmental, planning and consulting needs.

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Charles Voorhis is managing partner and is a member of the American Institute of Certified Planners (AICP) and is a Certified Environmental Professional (CEP), having over 30 years of experience in environmental planning on Long Island and the New York area. Mr. Voorhis oversees the business in terms of management, marketing and expertise, provides expert testimony in hearings and court proceedings, and ensures that client needs are served to the best of the firm's ability.

The firm has significant expertise in applied use of the State Environmental Quality Review Act (SEQRA) and National Environmental Policy Act (NEPA) with understanding of the practical and legal use of these laws from both the private and municipal perspective. Staffing includes environmental professionals assembled to work together as a team with complementary expertise and interests. NP&V personnel maintain wildlife collection permits in New York State, and are active contributors to the Long Island Geographic Information System (GIS) user group meetings and publications.

The firm has developed a number of copyright protected computer models for environmental analysis in the areas of: wildlife and ecology; water budget analysis and groundwater impacts; economic and market analysis; and stormwater impact prediction. The reports and graphics generated for projects are high in quality and professionally prepared through the use of state-of-the-art technology in digital aerial photography, geocoding and mapping of site features using differential global positioning systems (GPS), AutoCAD analysis/mapping, ESRI geographic information systems (GIS) programs including ArcMap and 3D Analyst and Spatial Analyst, custom spreadsheet models for regional land use impact assessment, and related technological tools for advanced data management and word processing. The seamless integration of environmental and engineering services with Nelson & Pope is accomplished by direct communication and computer networking to ensure that projects are managed through the review process to the development stage.

NP&V features three divisions, created to better serve clients with high quality, innovative and responsive consulting

THE THREE DIVISIONS OF NP&V...

ENVIRONMENTAL PLANNING CONSULTING

MUNICIPAL PLANNING
SEQRA COMPLIANCE
HARBOR MANAGEMENT PLANNING
FEASIBILITY STUDIES
DUE DILIGENCE ASSISTANCE
REGIONAL PLANNING
ECONOMIC PLANNING
ENVIRONMENTAL SITE ASSESSMENT
ENVIRONMENTAL SCIENCE & ANALYSIS
WETLAND PERMITTING
STORM WATER MANAGEMENT PLANS
WATERFRONT & COASTAL ZONE PROJECTS
MAPPING
WATERSHED MANAGEMENT & WATER SUPPLY
PERMITTING & PROCESSING
SUSTAINABILITY & LEED
PROJECT PLANNING & SUPPORT

The division of **ENVIRONMENTAL & COMMUNITY PLANNING** specializes in comprehensive local and regional planning. Technology is key in today's planning field and NP&V continues to keep pace with the most current tools available for planning applications. Use of Geographic Information System (GIS) software, 3D Analyst, ArcScene and Spatial Analyst, as well as CommunityViz (3-D simulation and analysis software), architectural SketchUp (modeling software), AutoCAD, and planning and analysis software and spreadsheets, results in rapid, accurate and high quality data, analysis, illustration and reporting. This division conducts planning studies, revitalization plans, community development/public participation activities, and human resource analysis including noise, air, demographic, socio-economic and visual resource assessment (including 3D simulations, photo simulations and shadow studies). The division is directed by Kathryn Eiseman, AICP and includes planners, economic analysts and GIS specialists with environmental, planning and architectural backgrounds.

The division of **ENVIRONMENTAL RESOURCE & WETLANDS ASSESSMENT** provides quality services in the preparation of Environmental Impact Statements (EIS's), Environmental Assessments (EA's), planning and zoning law review and preparation, stormwater permitting and erosion control compliance, and wetland delineation, assessment, mitigation and permitting. This division is headed by Carrie O'Farrell, AICP and has a capable staff including environmental scientists, wetland ecologists and environmental professionals to ensure timely delivery of quality products.

The division of **PHASE I/II ASSESSMENTS & REMEDIATION** performs Phase I and II Environmental Site Assessments (ESA's), voluntary cleanup, brownfields cleanup, RI/FS and all aspects of site remediation and investigation. The division is headed by Steven McGinn, CEI a member of Nelson & Pope's environmental services branch for 13 years with significant experience in preparation of Phase I/II ESA's field investigations and remediation. This division includes a staff of hydrogeologists and environmental professionals and coordinates required field equipment and laboratory services. NP&V has performed large and small assessments and provides the fastest possible turnaround to meet due diligence periods and deadlines which are often a factor in real estate transactions. NP&V Phase I/II ESA services are known and accepted by lending institutions throughout the tri-state area. NP&V owns, maintains and operates GPR (Ground Penetrating Radar) and PowerProbe units to provide expanded services in site investigations. A description of NP&V qualifications and resumes of personnel proposed for the project and specific project experience is included in the

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Summary of Services...

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SEQRA Compliance
Harbor Management Planning
Feasibility Studies
Due Diligence Assistance
Regional Planning
Economic Planning
Environmental Site Assessment
Environmental Science & Analysis
Wetland Permitting
Storm Water Management Plans
Waterfront & Coastal Zone Projects
Mapping
Watershed Management & Water Supply
Permitting & Processing
Sustainability & Leed
Project Planning & Support

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What we do at Nelson, Pope & Voorhis...

- **SEQRA/NEPA Compliance and Environmental Analysis:** Environmental impact statements (EIS); assessment forms (EAF); ecological and wildlife studies; noise and air emission impact studies; and compliance with Federal, State & local environmental regulations & laws.

- **Municipal Planning:** Full environmental and planning review services for municipalities including site plan and subdivision review, zoning board review and SEQRA Administration.

- **Regional and Community Planning:** Conceptual site development planning; public outreach: visioning workshops and charrettes; development alternatives; zoning; site yield studies; build-out analysis; visual analysis (3-D modeling; photo simulations) and comprehensive regional and hamlet planning studies.

- **Feasibility and Due Diligence Assistance:** Comprehensive research into site development related issues affecting project implementation, timing and costs.

- **Economic Planning:** Fiscal and economic impact analyses, market analyses & feasibility studies, economic development strategies, niche market and branding planning, tax base analysis, housing incentives and programs and community development.

- **Grants Administration:** Preparation of federal and state funded municipal grant applications, project management; including the preparation of all reporting documents.

- **Environmental Site Assessment:** Phase I, II and III environmental site assessments; geophysical surveys; remedial investigation and feasibility studies; Brownfield investigations; voluntary cleanup program; oil spill closure; asbestos and lead testing and abatement.

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Summary of Services...

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Watershed Management & Water Supply
Permitting & Processing
Sustainability & Leed
Project Planning & Support

- **Soil Borings & Subsurface Investigations:** Soil borings, Ground Penetrating Radar; groundwater investigations, modeling; and flow studies; monitoring well and peizometer installation.

- **Storm Water Management Plans (SWPPPS):** Design of management plans for storm water and erosion control compliance with latest Federal and State regulations; preparation and processing of NOI; and site compliance during construction…

- **Waterfront and Coastal Zone Projects:** Planning; permitting of waterfront improvement projects; water quality data management and studies; and docking facilities…

- **Mapping:** Inventory of physical features; GIS mapping; data management and analysis; and ground penetrating radar for identification of subsurface conditions…

- **Watershed Management and Water Supply:** Comprehensive regional watershed and water supply management and planning studies…

- **Permitting and Processing:** Preparation and processing of environmental applications for submittal; client representation before municipal agencies and departments and expert testimony for legal support and hearings…

- **Wetland Permitting:** Flagging and identification of fresh water and tidal wetlands; preparation of wetland permitting; and wetland restoration plans.

Nelson, Pope & Voorhis has the benefit of knowledge of local issues, local resources, and the passion to provide the very best solutions and strategies for the local area. This provides unparalleled knowledge of the application of the community planning process, comprehensive planning and SEQRA Administration. The result is a team of highly compatible land use professionals that will get the job done in a manner that ensures real and feasible solutions.

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PROJECTS

Nelson Pope & Voorhis

North Shore Embayments Watershed Management Plan Suffolk County

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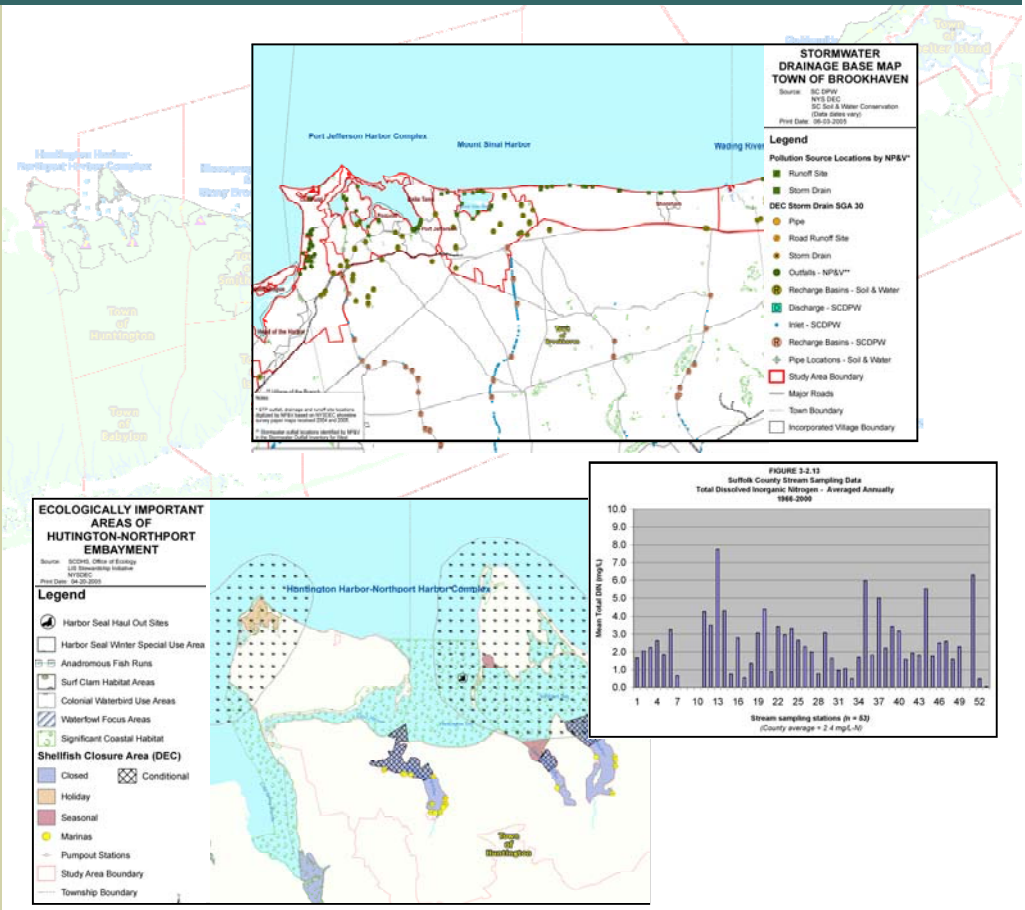

Completed an intensive watershed study for the north shore of Suffolk County to estimate existing pollution loads and develop a plan that would allow Suffolk County to reduce 58.5 % of its nitrogen load to Long Island Sound by 2014. Nelson, Pope & Voorhis (NP&V) used GIS technology to collectively look at decades of surface and ground water quality data, consider sensitive natural resource areas, land use and soils, storm drainage systems, sewered vs. non-sewered areas, population growth, and ultimately determine point and nonpoint source pollution loads from priority subwatersheds. NP&V developed a tax parcel-based spatial model to estimate past, current and future nitrogen loads from individual pollution sources (i.e. sewage treatment plants, septic systems, lawn fertilizers, agricultural fertilizers, road runoff etc.) and determine the sources of nitrogen that could most effectively and economically be managed.

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NYSDOS
South Shore Estuary Reserve
Fish Barrier Inventory

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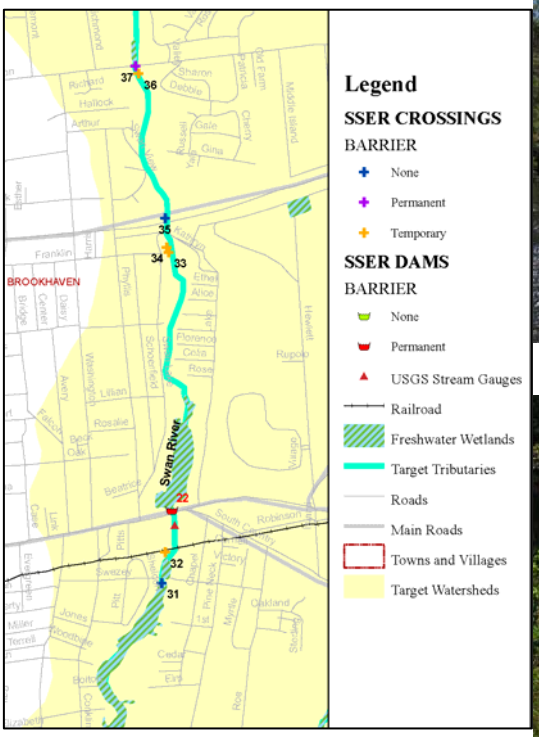

NP&V has inventoried and assessed potential barriers to fish passage as part a study funded by the NYS Department of State and South Shore Estuary Reserve (SSER) through the Environmental Protection Fund. In an effort to restore the historic habitats of diadromous fish (such as alewife, American eel and sea-run trout) in the tributaries of Great South Bay, the project goal was to inventory stream crossings and barriers such as dams to develop a prioritization strategy for the removal or modification of structures which inhibit fish passage to their spawning grounds. Stream assessments (e.g. crossing & dam location/size, in-stream and riparian habitat assessments) and related information (e.g. watershed land use, barrier owner information) were incorporated into a GIS database to aid this prioritization assessment. The fish barrier database can now be easily expanded to include inventories of additional streams within the region, as well as to track the progress of habitat restoration initiatives, including dam removals and installation of fish ladders. Streams evaluated include: Carll's River, Brown's River, Swan River, Mud Creek, Beaver Dam Creek and the Carman's River.

Additionally, NP&V prepared a Watershed Management Plan for Beaver Dam Creek.

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Great Cove Watershed Management Plan & Stormwater Improvements
Town of Islip

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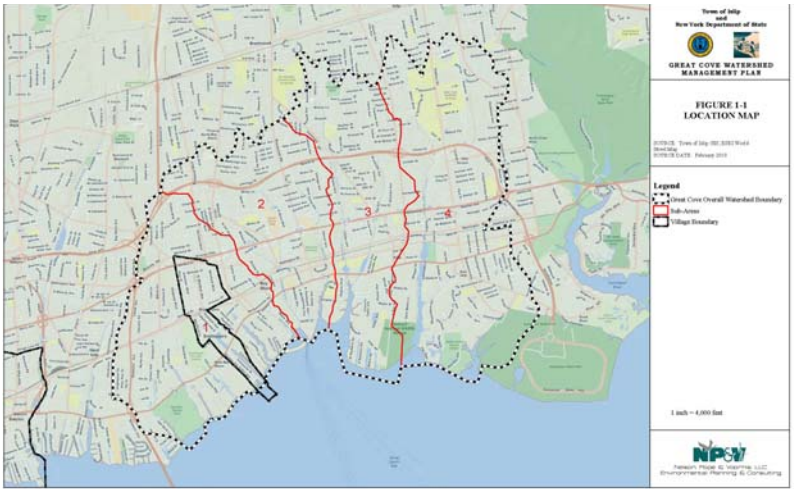

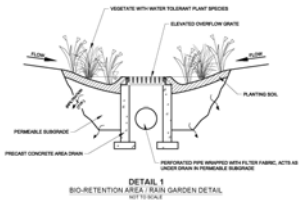

NP&V prepared the Great Cove Watershed Management Plan for the Town of Islip (funded by the NYSDOS). Great Cove includes the western half of the Town's frontage on the Great South Bay, with a 16,000+ acre drainage contributing area comprised of industrial, commercial and higher population suburban areas constructed prior to 1970. Many areas within the watershed have high groundwater conditions, extensive impervious cover and drainage infrastructure and collection systems that discharge directly to Great Cove and the creeks tributary to it. The Management Plan focuses on improvement of water quality through the identification, control and reduction of non-point source pollution. Sixteen conceptual designs for drainage improvement projects within the watershed were prepared. Drainage improvement designs included use of green infrastructure techniques such as bio-retention areas, vegetated swales, pervious pavement, and various infiltration designs. Conceptual designs and estimated construction costs were prepared for each location. Additionally, the project included a review of municipal operations and best management practices identified for salt storage, truck washing, roadway and stormwater system maintenance, and highway yard storage and drainage.

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Lake Montauk Watershed Management Plan Town of East Hampton

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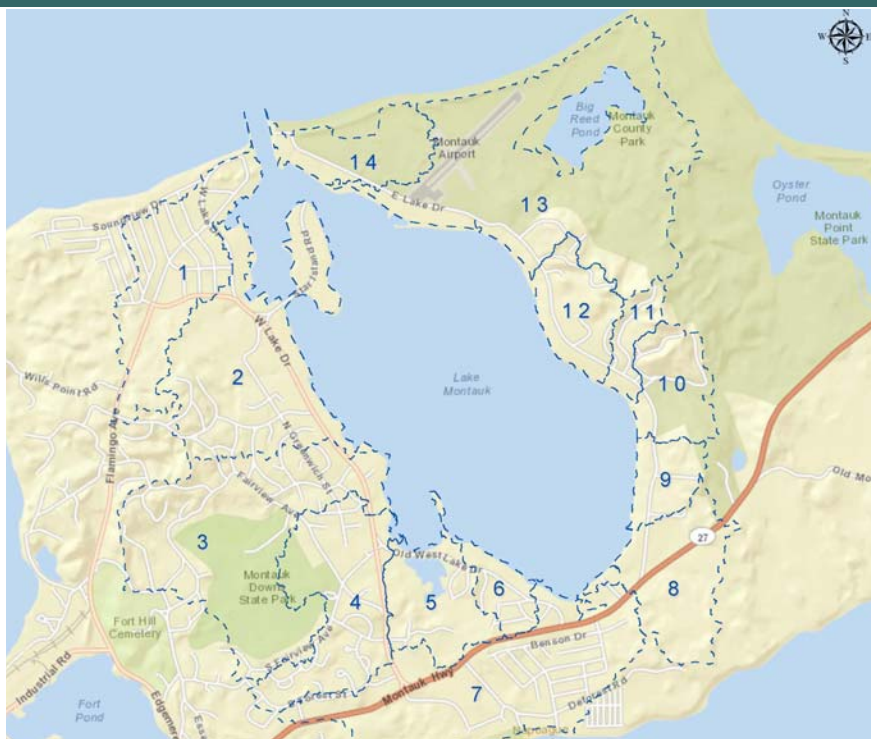
Permitting & Processing



NP&V completed the Lake Montauk Watershed Management Plan for the Town of East Hampton (funded by the New York State Department of State). NP&V worked with the Town and CCE (who conducted surface water sampling and DNA analysis, as well as eel grass surveys and habitat assessments) to prepare a complete characterization of the Lake, gather input from the WMP advisory committee and furnish recommendations for watershed management. The upland contributing drainage areas to Lake Montauk are comprised of primarily residential uses with some commercial uses, marinas and yacht clubs located along or in immediate proximity to the waterfront. Many areas within the watershed have high groundwater conditions, poorly draining soils, and aged sanitary systems that impact the health of the Lake. The Management Plan focuses on improvement of water quality through the identification, control and reduction of non-point source pollution. Additionally, recommendations considered potential direct sanitary discharge to the Lake as evidence suggested contribution of coliform due to sanitary system failure. An implementation matrix that included sources of grant funding was prepared to aid in simple and rapid implementation of recommendations by the Town. The project was completed in July 2014.

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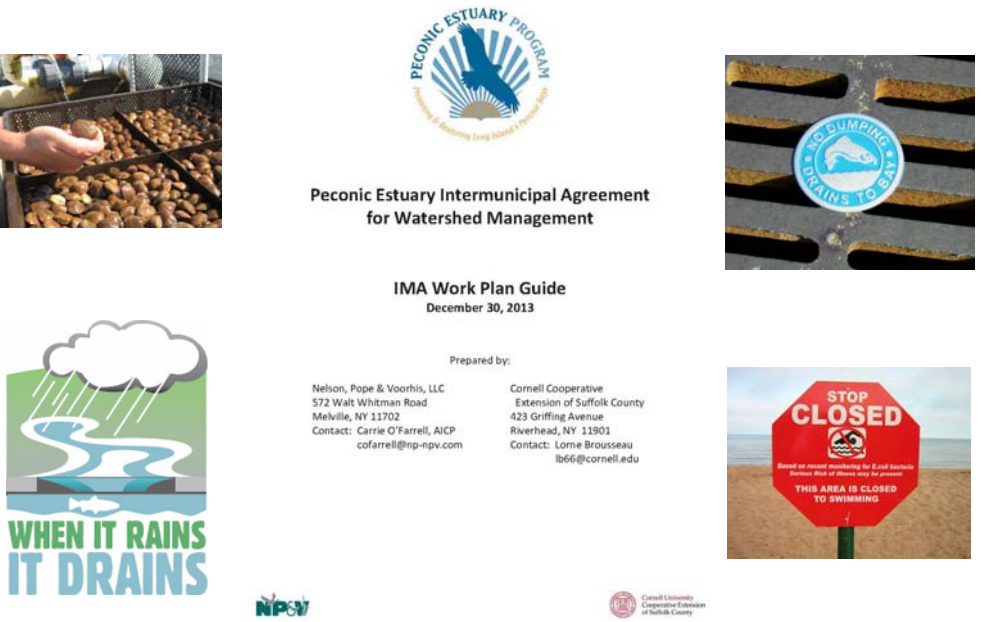
Nelson Pope & Voorhis

Peconic Estuary Inter-municipal Stormwater Management Services (MS4) Suffolk County

Environmental Planning Consulting

Feasibility & Due Diligence Assistance
Regional & Site Planning
Economic Planning
Environmental Site Assessment
Environmental Science & Analysis
Wetland Permitting
Storm Water Management Plans
Waterfront & Coastal Zone Projects
Mapping
Watershed Management & Water Supply
Permitting & Processing



The Peconic Estuary Program (PEP) retained NP&V, working with Cornell Cooperative Extension of Suffolk County (CCE), to establish an inter-municipal agreement (IMA) to establish collaboration efforts of 12 east end municipalities, Suffolk County and the NYS Department of Transportation to work together towards water quality improvements in the Peconic Estuary. The intention of the IMA was to establish a collective effort to secure funding and provide cost-saving implementation of water quality improvement programs and projects to benefit the Peconic Estuary. This effort involved regular meetings with representatives from all the municipalities/entities within the surface water contributing area of the Peconic Estuary, as well as meetings with each of the municipal governing boards.

NP&V and CCE drafted the IMA, established priority actions and programs with the IMA participants, established a Work Plan outlining various priority projects and actions, and completed several implementation products including: a grant application to establish funding for an estuary coordinator and three on-line training modules with supporting checklists and materials to assist participates with MS4 Stormwater Permit training requirements (illicit discharge detection, goose management and facility best management practices).

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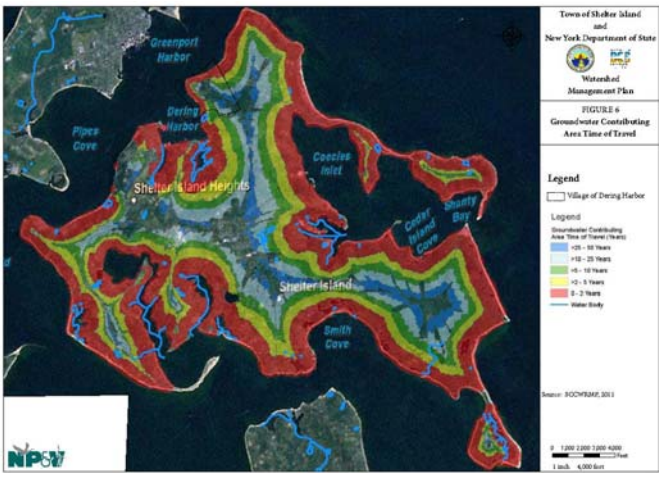
Town of Shelter Island Watershed Management Plan

Environmental Planning Consulting

Feasibility & Due Diligence Assistance
Regional & Site Planning
Economic Planning
Environmental Site Assessment
Environmental Science & Analysis
Wetland Permitting
Storm Water Management Plans
Waterfront & Coastal Zone Projects
Mapping
Watershed Management & Water Supply
Permitting & Processing



The Town of Shelter Island and Village of Dering Harbor retained NP&V to prepare a watershed management plan for the entirety of the island. The plan was funded by a grant from the NYSDOS and developed according to NYSDOS guidelines for watershed management plans. This document characterizes the watershed's natural resources, identifies known impairments, inventories existing land uses and open space, provides a comprehensive stormwater infrastructure inventory, determines critical stormwater runoff areas, identifies gaps in existing local laws, programs and practices, recommends actions to prevent further degradation, as well as identifies an implementation strategy to restore the watershed. Recommendations considered non-point source pollution from runoff and sanitary systems, as well as methods for remediation of a phosphorus impaired pond. Development of the plan included public participation and outreach to the local community. The project was completed in July 2014.

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NELSON POPE & VOORHIS

ENVIRONMENTAL IMPACT STATEMENTS & NEPA/SEQRA ADMINISTRATION

ENVIRONMENTAL PLANNING CONSULTING:

FEASIBILITY & DUE DILIGENCE ASSISTANCE
REGIONAL & SITE PLANNING
ECONOMIC PLANNING
ENVIRONMENTAL SITE ASSESSMENT
ENVIRONMENTAL SCIENCE & ANALYSIS
WETLAND PERMITTING
STORM WATER MANAGEMENT PLANS
WATERFRONT & COASTAL ZONE PROJECTS
MAPPING
WATERSHED MANAGEMENT & WATER SUPPLY
PERMITTING & PROCESSING

EIS CONSULTING SERVICES:

LANDSCAPE AND ENVIRONMENTAL DESIGN
ECOLOGICAL & WILDLIFE STUDIES
LOCAL/REGIONAL PLANNING STUDIES
ECONOMIC & MARKET IMPACT STUDIES
HISTORIC & CULTURAL RESOURCE STUDIES
HYDROLOGIC AND SOIL SUITABILITY STUDIES
NOISE IMPACT AND AIR EMISSION STUDIES
VISUAL IMPACT ANALYSIS STUDIES & 2/3-D MODELS
GEOGRAPHIC INFORMATION SYSTEM (GIS) SERVICES

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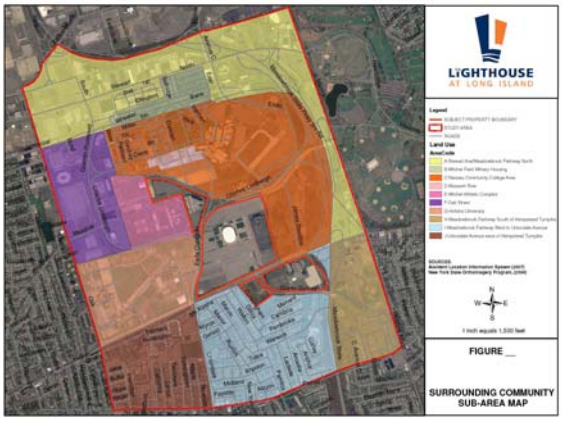

Environmental review pursuant to State Environmental Quality Review Act (SEQRA)/National Environmental Policy Act (NEPA) is required for any project of consequence proposed by private interests or government. NP&V excels at implementation of NEPA/SEQRA and performs NEPA/SEQRA review of proposed projects for government and private clients. We prepare all NEPA/SEQRA documents and ensure correct processing by agencies on behalf of our clients. NP&V has the experience and knowledge to navigate through this process to ensure that NEPA/SEQRA decisions which are made as a result of our consult are technically and administratively correct.

Sample Projects:

- **The Lighthouse @ Long Island, Nassau Coliseum EIS:** Draft and Final GEIS for a proposed 8 million square foot mixed-use development on 150-acres at the Nassau Veterans Memorial Coliseum site and adjacent commercial properties. NP&V was responsible for preparing the GEIS analysis for soils, topography, ecology, nitrogen analysis and water budget, aesthetics and visual resources, which included a regional visual analysis, air and noise sections. NP&V also delineated wetlands along the extent of the Meadowbrook Parkway to assist in evaluating potential impacts of possible roadway improvements.
- **Heckscher Museum of Art, Environmental Assessment**: NP&V completed NEPA administration and environmental consulting services for the proposed expansion and rehabilitation of the existing Heckscher Art Museum, listed on the National Register of Historic Places. Services involved the preparation of an Environmental Assessment Report for review by the National Park Service. Impact issues assessed as part of this review included coordination and Section 106 review by the State Office of Parks and Historic Preservation for historic compatibility and integrity, alienation and conversation of park lands, groundwater and drainage design and freshwater wetlands.
- **Brookhaven Walk, Town of Brookhaven, EIS**: Prepared an EIS for an innovative 850,000 SF regional shopping destination on a 150-acre site in Yaphank. NP&V worked closely and effectively in advising the applicant as to overall application strategies and provision of background information on the site, as well as input in relation to applicable land use plans and development restrictions in determining overall project uses, yields and site design. During the review period, the Town Board revised its Zoning Code, which necessitated a substantial revision of the project's site plans, particularly with respect to sanitary wastewater treatment.

RESUMES

Charles J. Voorhis, AICP, CEP

PERSONAL PROFESSIONAL QUALIFICATIONS

Licensing and Certification:

- Certified Environmental Professional (CEP)
- American Institute of Certified Planners (AICP)
- Certified Environmental Inspector, Environmental Assessment Association
- US Coast Guard Master Steam and Auxiliary Sail Vessels

Experience:

- Managing Partner of Firm, Nelson, Pope & Voorhis, LLC; Melville, New York (1/97-Present)
- Principal of Firm, Charles Voorhis & Associates, Inc.; Miller Place, New York (8/88-1/97)
- Director, Division of Environmental Protection, Department of Planning, Environment and Development; Town of Brookhaven, New York (3/86-8/88)
- Environmental Analyst, Division of Environmental Protection, Department of Planning, Environment and Development; Town of Brookhaven, New York (8/82-3/86)
- Private and Public Consultant, Planning and Environmental Issues (8/82-3/87)
- Public Health Sanitarian, Suffolk County Department of Health Services; Hauppauge, New York (1/80-8/82)
- Environmentalist I, Suffolk County Department of Environmental Control, Central Islip, New York (2/78- 8/79)

Education:

- SUNY at Stony Brook; Master of Science in Environmental Engineering, concentration in Water Resource Management, 1984
- Princeton Associates; Groundwater Pollution and Hydrology Short Course, Princeton, New Jersey, 1983
- New York State Health Department, Environmental Health Training Course, Hauppauge, New York, 1982
- Southampton College of Long Island University; Bachelor of Science in Environmental Geology, 1977

Significant Professional Achievements:

- Great Cove Watershed Management Plan, 2011
- Town of Southold Comprehensive Plan Update, Economic Chapter, 2010
- Beaver Dam Creek Watershed Management Plan, 2009
- Lake Agawam Comprehensive Management Plan, 2009
- Southold TDR Planning Report and GEIS, 2008
- Suffolk County North Shore Embayments Watershed Management Plan, 2007
- Mt. Sinai Harbor Management Plan, 2006
- The Residences at North Hills, DEIS and FEIS, 2005-06
- Shelter Island Water Supply Study, 2005
- Town of Southold Comprehensive Implementation Strategy, 2003
- Lower Port Jefferson Harbor Action Plan, 2002
- Setauket Fire District Needs Analysis, 2001
- Southampton Agricultural Opportunities Subdivision, DEIS, FEIS and Findings, 2001
- Old Orchard Woods, DEIS and FEIS, 2000
- Town of Smithtown Armory Park, DEIS, 2000
- Town of Southold Water Supply Management & Water Protection Strategy, 2000
- CVS @ Greenlawn, DEIS and FEIS, 1998
- Knightsbridge Gardens, DEIS and FEIS, 1997
- Camelot Village @ Huntington, DEIS, 1997
- Airport International Plaza, DEIS and FEIS, 1996
- Price Club @ New Rochelle, DEIS and FEIS, 1995
- Commack Campus Park @ Commack DEIS and FEIS, 1994
- Water Mill Shops @ Water Mill DEIS, 1993
- PJ Venture Wholesale Club @ Commack DEIS and FEIS, 1993
- Dowling College NAT Center DEIS and FEIS, 1992
- Final EIS Angel Shores @ Southold, 1991
- Town of Brookhaven Boat Mooring Plan, 1991
- Draft EIS Round Hill @ Old Westbury, 1990
- Draft EIS St. Elsewhere @ Nesconset, 1989
- EQBA, Acquisition Study for Brookhaven Town, 1987
- Award for Environmentally Sensitive Land Design, Pine Barrens Review Comm., 1988
- Town of Brookhaven Land Use Plan, 1987
- Discussion of Hydrogeologic Zone Boundaries in the Vicinity of S. Yaphank, LI, NY, 1986
- Comprehensive Review of Industrial Zoned Land in the Sensitive Hydrogeologic Zone, Brookhaven, 1983

Professional & Other Organizations (past and present):

- American Planning Association, Washington, D.C.
- National Association of Environmental Professionals, Alexandria, VA
- Environmental Assessment Association, Scottsdale, Arizona
- American Water Resources Association, Syracuse, New York
- New York Water Pollution Control Association, Riverdale, NY
- Water Pollution Control Federation, Washington, D.C.
- Long Island Seaport & EcoCenter, Inc., Director, Port Jefferson, NY
- Boy Scouts of America, Trained Scoutmaster, Nathanial Woodhull District, NY
- Historical Society of Port Jefferson, Trustee, Port Jefferson, NY
- Environmental Conservation Board, Village of Port Jefferson, NY
- Port Jefferson Village, Waterfront Advisory Committee, Port Jefferson, NY
- Town of Brookhaven Mount Sinai Harbor Advisory Committee, Medford, NY
- Brookhaven Conservation Advisory Council, Medford, NY

Carrie O'Farrell, AICP

PERSONAL PROFESSIONAL QUALIFICATIONS

Experience:

- Partner/Division Manager of the Environmental Resource & Wetland Assessment Division, Nelson, Pope & Voorhis, LLC Melville, New York (3/2005 - present).

- Environmental Planner; Nelson, Pope & Voorhis, LLC, Melville, NY (10/2002 to 2/2005). Preparation of environmental assessments, environmental impact statements and various other land use and feasibility studies. Development of land use plans for town zoning and planning purposes, and coordinate reviews with various town and state officials. Preparation of freshwater & tidal wetlands permits & permit plans, NYSDEC Stormwater Pollution Prevention Plans and Stormwater General Permit filings.

- Consultant and Environmental Policy Analyst, Booz Allen Hamilton, Inc., Washington, D.C. (1999 to 2002). Provide program management, planning, on-site support, and data analysis for various federal agency environmental programs including U.S. Department of Energy, Federal Aviation Administration (FAA), and U.S. Department of Defense. Prepared policy recommendations, program information briefings, Congressional testimony, and various program support activities. Reviewed and prepared sections of environmental impact analyses, policy language, responses to public comments, press releases, and fact sheets; and coordinated interagency meetings and comment resolution between various federal offices.

Education:

- Bachelor of Science: University of Rochester, Environmental Science, May 1999

Significant Professional Achievements:

- Environmental Impact Statements (EIS): Downtown Hempstead Rezoning, Village of Hempstead; The Uplands at St. Johnland, Kings Park; Lighthouse @ Long Island, Kensington Estates, Woodbury; Roslyn Landing @ Roslyn; Glen Harbor Partners Town of N. Hempstead; The Residences @ North Hills, Village of North Hills; Lands End, Village of Sands Point; Korean Church of Long Island, Village of Lake Success; Sandy Hills, Town of Brookhaven;
- Draft Generic EIS and Mixed Use Planned Development District legislation: Gabreski Airport PDD; North Sea Mixed Use Development District, Southampton, NY.
- Planned Development District Master Plan & Planned Development District (PDD) Legislation: Gabreski Airport Master Plan, Town of Southampton; North Sea PDD, Town of Southampton; Poxabogue Golf Course PDD, Town of Southampton
- Expanded Part I & Part III Environmental Assessments: Williams Estate, Cold Spring Harbor; Parrish Art Museum, Town of Southampton; Cenacle Manor, Ronkonkoma; The Seasons at East Meadow; Laurel Hollow Subdivision; Greenport Marina, Greenport, NY; Engel Burman @ Plainview; Shaw Estates, Manorville
- NYC CEQR Environmental Assessments: Briarwood Plaza Bell Boulevard Rezoning; Hatzolah of Boro Park
- DEC SPDES Phase II Permits & Municipal Compliance: Village of Poquott, Village of Port Jefferson, & Village of Bellport Stormwater Management Plans; Completion of DEC annual reports; completion of 100+ Stormwater Pollution Prevention Plans for Stormwater Discharges from Construction Activity (GP-0-10-001) for construction sites throughout Nassau & Suffolk Counties.
- Municipal Planning Studies: Great Cove Watershed Management Plan, Town of Islip; Mount Sinai Harbor Management Plan, Town of Brookhaven; NYSDOS Beaver Dam Creek Watershed Management Plan; NYSDOS Barriers to Fish Passage in six South Shore Estuary Reserve Tributaries; Town of North Hempstead, North Sheets Creek Beach Shoreline & Park Improvements; Town of Shelter Island Water Supply Study;
- Wetlands Permits & Feasibility Studies: Fire Island Pines Property Owner's Association, Brookhaven; Bedford Ponds, Bedford, NY; Kismet Walks, Town of Islip; Mooney Pond, Coram, Town of Brookhaven; Port Washington Yacht Club, Port Washington.
- Site plan/subdivision review: Village of Lake Success, Town of Southampton, Town of Southold and Villages of Poquott and Southampton.
- US Department of Energy (DOE) Yucca Mountain Project Draft, Supplemental, and Final EIS. Conducted DOE headquarters policy review, prepared draft language, and coordinated inter- agency comment/review of documents for nationwide NEPA project.
- U.S. Department of Energy Yucca Mountain Site Recommendation. Assisted in the development and review of U.S. Secretary of Energy's Yucca Mountain Site Recommendation Decision and Congressional approval.
- NEPA Environmental Assessment: Heckscher Museum, Huntington, NY.

Eric C. Arnesen, LPG

PERSONAL PROFESSIONAL QUALIFICATIONS

Experience:

- Project Manager/Hydrogeologist, Nelson, Pope & Voorhis, LLC, Melville, NY (2014-Present)
- Hydrogeologist, Nelson, Pope & Voorhis, LLC, Melville, NY (1999-2014). Responsible for providing technical and professional expertise for Phase I, II, III, RI/FS studies, ESAs, EISs and EAFs regarding groundwater, surface water, soil and solid waste issues, and performs Stormwater Pollution Prevention Plan inspections and site monitoring.
- Hydrogeologist, Fanning, Phillips and Molnar, Ronkonkoma, NY (1998-1999). Field coordination and management of delineation and long-term monitoring programs for Air Force Center for Environmental Excellence (AFCEE) at United States Air Force Bases.
- Hydrogeologist, ERM-Northeast, Woodbury, NY (1993-1998). Field coordination and management of Phase I and II Investigation studies. Field Manager of RI/FSs, removal actions and plume delineation studies under jurisdiction of USEPA, USDOE and NYSDEC.
- Geologist/Hydrogeologist Roux Associates, Huntington, NY (1988-1993). Involved in over 30 Phase I and II investigations in all aspects of participation.

Education:

- State University of New York at Stony Brook, Masters of Science, Hydrogeology (2000).
- State University of New York at Cortland Bachelors of Science, Geology (1988).

Significant Professional Achievements:

- Prepared several Draft EISs for major development projects on Long Island which included the development of a 600,000 sq ft industrial facility on a 78 acre parcel within the Central Pine Barrens Compatible Growth Area in Yaphank, New York; a PRC complex on a 74 acre parcel within the Central Pine Barrens Compatible Growth Area in Eastport, New York and for a proposed home improvement center in Rocky Point, New York. Considered variety of environmental resources including water, geology, soils ecology community, aesthetics, transportation, cultural, zoning, land use and planning. Evaluated impacts developments may have on these resources and proposed mitigation measures to reduce impacts. Also evaluated alternatives to proposed project to determine most appropriate and feasible development approach. Presented finding during public information meetings sponsored by the Town planning board.
- Prepared several Draft EISs for the State Education Department (SED) related to the expansion and/or construction of educational facilities. Specifically, conducted an environmental review and authored the Draft EIS related to the proposed construction of a new Middle School for the Hewlett-Woodmere School District; High School expansion for the Center Moriches School District; construction for a proposed new public libraries in South Huntington, West Hempstead and Merrick and expansion of the Baldwin Public Library. Reviewed and analyzed potential project impacts on environmental resources, demography, public services, traffic patterns, cultural resources, aesthetics and surrounding land use. Outlined measures to be undertaken to mitigate any negative impact which may have resulted from each project.
- Prepared Part III EAF's for several development proposals including PRCs, multiple retail outlets, restaurants and apartment complexes. Addressed issues outlined in scoping documentation which include groundwater, topography, ecology, transportation cultural resources, aesthetic resources, community services, community character, sanitary disposal, etc. Analyzed impact development has on these resources and proposed mitigation measures to alleviate negative effects.
- Prepared multiple Phase I studies for a variety of industrial, commercial and residential facilities for the purpose of facilitating property transfer. Also prepared Phase I ESA's for County & Town agencies related to Land Preservation Acquisition.
- Conducted compliance inspections for several construction sites as per the requirements outlined under the NYSDEC SWPPP (GP-0-08-001).

Significant Professional Achievements:

- Conducted groundwater mounding hydrogeological studies as well as groundwater flow assessment studies to assess the potential impacts related to discharges from proposed new or expanded Sewage Treatment Plants (STP) within multi-family residential communities. The studies included the collection of geologic and hydrogeologic data which was incorporated into a numerical groundwater mounding model.
- Prepared Compatible Growth Area Application package for a Development of Regional Significance related to the construction of a light industrial facility in the Central Pine Barrens Region on Long Island, New York. Provided information requested by Central Pine Barrens Commission to ensure compliance with the standards and guidelines outlined in the Central Pine Barrens Comprehensive Land Use Plan.
- Conducted RI/FS for an electroplating facility in Farmingdale, New York. Prepared RI/FS report in accordance with NYSDEC requirements for the evaluation of remedial alternatives related to impacts to soils and groundwater. Evaluated technical data for the proposal of several remedial alternatives which included groundwater pump and treat, capping, excavation and encapsulation.
- Supervised and conducted field activities related to several RI/FS and Phase II studies for a variety of facilities which include government installations, dry cleaners, and industrial facilities. Oversaw all aspects of field investigation including well and boring installations, sampling activities, geophysical studies, air quality studies and hydrogeological studies (pump tests, step tests, stratigraphic mapping, etc.).

Professional & Other Organizations (past and present):

- Licensed Professional Geologist, Tennessee Department of Commerce, License # 4471
- OSHA 40 Hour HAZWOPER and 8 hour HAZWOPER refresher
- Geophysical Survey Systems, Inc., Theory and Practice of Applying Subsurface Interface Radar in Engineering and Geophysical Investigations Training Course, March 2004
- National Highway Institute, FHWA-NHI-132079 Subsurface Investigation Qualification, October, 2009.
- SUNY, Stormwater Management Program, Erosion & Sediment Control Site Design Training, May, 2008.

ATTACHMENT B

LINAP ASSUMPTIONS – JANUARY 2017

Attachment B LINAP Assumptions

N Source	Application Load (lb-N/1,000sf/yr)	% of Parcel Fertilized	Leaching Rate (%) / Soil	Vadose Zone Loss	Aquifer Loss	Notes	Reasoning
Fertilizer	2.04	20-60%	30%	0%	0-15%	Residential; 1 lb-N/1,000 sf per application; 49% > 1 application per year (3-4); 31% 1 application per year; 4.5% 1 application every 3 years; 15.5% No fertilizer; Represent averages. Vaudrey gives average, low and high values	Modified from Vaudrey. 40% leaching rate is double the leaching rate used by MEP and between that and the NLM values. Leaching rate doubled due to age of turf and irrigation practices in Suffolk County. No strong evidence for vadose zone losses. Aquifer denitrification potential will be tested in sensitivity simulationsm as will a range of leaching rates (20 to 61%). Use Cornell % Turf for residential. Golf course application consistent with Cornell/Porter.
	3.89	Greens and Fairways	20%	0%	0-15%	golf courses	
	0.92	75%	30%	0%	0-15%	Parks and athletic fields; Assumes 50% of parks use fertilizer; Assumes 75% of the land is fertilized	
	0.46	90%	40%	0%	0-15%	Pasture/hay	Generally a permanent, non-rotating form of ag
	1.61	90%	40%	0%	0-15%	Orchards	Generally a permanent, non-rotating form of ag
	0.34	90%	40%	0%	0-15%	Vineyards (vinifera grapes)	Generally a permanent, non-rotating form of ag
	5.74	90%	40%	0%	0-15%	Sod	Generally a permanent, non-rotating form of ag
	2.53	90%	40%	0%	0-15%	Other Crops	Rotating crops. This represents the weighted average of the other crop types.

N Source	Application Load (lb-N/1,000sf/yr)	Leaching Rate (%) / Soil	Vadose Zone Loss	Aquifer Loss	Notes	Reasoning
Atmospheric	0.041	25%	0%	0-15%	Natural vegetation	Application load reduced to correspond with Southold Cedar Beach data and CASTNET data from surrounding stations. Leaching rates from TNC (2016).
		30%	0%		Turf	
		40%	0%		Agriculture	
		25%	0%		Wetlands	

N Source	Load (lbs-N/person/yr)	Attenuation Factors			Reasoning
		Septic Tank (Suffolk)	Leaching Ring & Plume	Aquifer	
On-Site Wastewater Systems (Residential)	**10**	**6%**	**10%**	**0-15%**	**This loading estimate is consistent with what was used on Long Island and the NLM but slightly reduced from the 10.58 (NLM) and the 11 lbs/person/yr mentioned by the Chesapeake report to account for additional N load from non-residential sources. The 6% lost in the septic tank from NLM. 10% from leaching rings and plume. 15% from aquifer as per Young, Kroeger and Hanson (2013), but this is likely the high end for Long Island. This will be evaluated with sensitivity simulations. For residential developments served by STPs, use County DMR data (No individual load appied to parcels served by STPs). People per household supplied by the Towns / Census**

Population (people per household)
See Population_EastEnd and Population_WestEnd
Eastern towns will be weighted for seasonal population (assuming July and August)

	Approach
On-Site Wastewater Systems (Non-Residential)	Use County DMR data. For sites without DMR data, use Suffolk County Commercial Sewer Standards (flow per unit area), building footprints and an assumed effluent of 60 mg-N/L.

Land Use Type	Flow (gpd/sf)
Commercial	0.07
Industrial	0.04
Institutional	0.06
Downtown Commercial	0.07

PLUS an assumed 2 dwelling units

For Parks
Number of cars/trucks per park per year (from SCDHS) x 4 people per vehicle (SCHDS) x 5 gallons per person (SCDHS) x 60 mg-N/L

Animal N Load (lbs-N/animal/yr)	Cats	Dogs	% Lost to Volatilization	Geese & Ducks	Deer
	3.22	4.29	75%	*	*

Cat & Dog Population (number per household)		
	Indoor	Outdoor
Cats	1.16	**0.74**
Dogs	0	**1.4**

APPENDIX E-2

SONIR WAINSCOTT
EXISTING CONDITIONS

SIMULATION OF NITROGEN IN RECHARGE (SONIR)

NELSON, POPE & VOORHIS, LLC MICROCOMPUTER MODEL

NAME OF PROJECT — **Wainscott Commercial Center - Existing Conditions/Alternative 1**
Wainscott, NY

DATA INPUT FIELD

A	Site Recharge Parameters	Value	Units
1	Area of Site	70.51	acres
2	Precipitation Rate	50.10	inches
3	Acreage of Fertilized Landscaping	1.28	acres
4	Fraction of Land in above	0.018	fraction
5	Evapotranspiration from above	21.20	inches
6	Runoff from above	0.50	inches
7	Acreage of Unfertilized Landscaping	0.00	acres
8	Fraction of above	0.000	fraction
9	Evapotranspiration from above	21.20	inches
10	Runoff from above	0.50	inches
11	Acreage of Unvegetated/Dirt Roads	24.29	acres
12	Fraction of above	0.344	fraction
13	Evapotranspiration from above	21.20	inches
14	Runoff from above	0.00	inches
15	Acreage of Water/Ponds	0.00	acres
16	Fraction of Site in above	0.000	fraction
17	Evaporation from above	30.00	inches
18	Makeup Water (if applicable)	0.00	inches
19	Acreage of Natural	44.25	acres
20	Fraction of above	0.628	fraction
21	Evapotranspiration from above	21.20	inches
22	Runoff from above	0.50	inches
23	Acreage of Impervious/Paved/Bldgs	0.78	acres
24	Fraction of Land in above	0.011	fraction
25	Evapotrans. from above	5.01	inches
26	Runoff from Impervious	0.00	inches
23	Acreage of Other	0.00	acres
24	Fraction of Land in above	0.000	fraction
25	Evapotrans. from above	21.20	inches
26	Runoff from above	0.00	inches
27	Acreage of Land Irrigated	1.28	acres
28	Fraction of Land Irrigated	0.018	fraction
29	Irrigation Rate	27.74	inches
30	Number of Dwellings	0	units
31	Water Use per Dwelling	0	gal/day
32	Wastewater Design Flow (existing uses)	964	gal/day

B	Nitrogen Budget Parameters	Value	Units
1	Persons per Dwelling	0.00	persons
2	Nitrogen per Person per Year	10.0	lbs
3	a. Sanitary Nitrogen Leaching Rate	84%	percent
3	b. Treated Sanitary Nitrogen Leaching Rate	100%	percent
4	Fertilized Landscaping	1.28	acres
5	Fertilizer Application Rate (for above)	2.00	lbs/1000 sq ft
6	Fertilizer Nitrogen Leaching Rate (for above)	20%	percent
7	Fertilized Land (other, if applicable)	0.00	acres
8	Fertilizer Application Rate (for above)	0.00	lbs/1000 sq ft
9	Fertilizer Nitrogen Leaching Rate (for above)	0%	percent
10	Outdoor Cat Population	0.19	pets/dwelling
11	Cat Waste Nitrogen Load	3.22	lbs/pet/year
12	Outdoor Dog Population	0.35	pets/dwelling
13	Dog Waste Nitrogen Load	4.29	lbs/pet/year
14	Pet Waste Nitrogen Leaching Rate	25%	percent
15	Area of Land Irrigated	1.28	acres
16	Irrigation Rate	27.74	inches
17	Irrigation Nitrogen Leaching Rate	10%	percent
18	Atmospheric Nitrogen Application/Load	0.04	lbs/1000 sq ft
19	Atmos. N Leaching Rate (Natural/Wetlands)	25%	percent
20	Atmos. N Leaching Rate (Turf/Landscaped)	20%	percent
21	Atmos. N. Leaching Rate (Ag; Imperv; Other)	40%	percent
22	Nitrogen in Water Supply	2.00	mg/l
23	Nitrogen in Sanitary Flow	50.00	mg/l

C	Comments
1)	Please refer to user manual for data input instructions; updated per LINAP.
	Total Acreage Check 70.6 100%

NPV

SIMULATION OF NITROGEN IN RECHARGE (SONIR)

NELSON, POPE & VOORHIS, LLC MICROCOMPUTER MODEL

Wainscott Commercial Center - Existing Conditions/Alternative 1

SITE RECHARGE COMPUTATIONS

A	*Fertilized Landscaping*	*Value*	*Units*
1	A = Fraction of Land in Cover Type	0.018	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	21.20	inches
4	Q = Runoff Rate	0.50	inches
5	R(a) = P - (E + Q)	28.40	inches
6	R(A) = R(a) x A	0.52	inches

B	*Unfertilized Landscaping*	*Value*	*Units*
1	A = Fraction of Land in Cover Type	0.000	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	21.20	inches
4	Q = Runoff Rate	0.50	inches
5	R(b) = P - (E + Q)	28.40	inches
6	R(B) = R(b) x A	0.00	inches

C	*Unvegetated/Dirt Roads*	*Value*	*Units*
1	A = Fraction of Land in Cover Type	0.344	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	21.20	inches
4	Q = Runoff Rate	0.00	inches
5	R(c) = P - (E + Q)	28.90	inches
6	R(C) = R(c) x A	9.96	inches

D	*Water/Ponds*		
1	A = Fraction of Site in Water	0.000	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evaporation Rate	30.00	inches
4	Q = Runoff Rate	0.00	inches
5	M = Makeup Water	0.00	inches
6	R(d) = {P - (E+Q)} - M	20.10	inches
7	R(D) = R(d) x A	0.00	inches

E	*Natural*		
1	A = Fraction of Land in Cover Type	0.628	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	21.20	inches
4	Q = Runoff Rate	0.50	inches
5	R(e) = P - (E + Q)	28.40	inches
6	R(E) = R(e) x A	17.82	inches

F	*Impervous/Paved/Roads*	*Value*	*Units*
1	A = Fraction of Land in Cover Type	0.011	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	5.01	inches
4	Q = Runoff Rate	0.00	inches
5	R(f) = P - (E + Q)	45.09	inches
6	R(F) = R(f) x A	0.50	inches

G	*Other*		
1	A = Fraction of Land in Cover Type	0.000	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	21.20	inches
4	Q = Runoff Rate	0.00	inches
5	R(g) = P - (E + Q)	28.90	inches
6	R(G) = R(g) x A	0.00	inches

H	*Irrigation Recharge*		
1	A = Fraction of Land Irrigated	0.018	fraction
2	I = Irrigation Rate	27.74	inches
3	E = Evaptranspiration Rate	21.40	inches
4	Q = Runoff Rate	0.00	inches
5	R(h) = I - (E + Q)	6.34	inches
6	R(H) = R(H) x A	0.12	inches

I	*Wastewater Recharge*		
1	WDF = Wastewater Design Flow	964	gal/day
2	WDF = Wastewater Design Flow	47,044	cu ft/yr
3	A = Area of Site	3,071,416	sq ft
4	R(j) = WDF/A	0.02	feet
5	R(I) = Wastewater Recharge	0.18	inches

J	*Runoff Recharge*		
1	Q(A) = Runoff from Landscaped	0.009	inches
2	Q(B) = Runoff from Unfertilized Landscaping	0.000	inches
3	Q(C) = Runoff from Unvegetated	0.000	inches
4	Q(E) = Runoff from Natural	0.314	inches
5	Q(H) = Runoff from Other	0.000	inches
6	Q(I) = Runoff from Irrigation	0.00	inches
7	Q(tot) = Q(A)+Q(B)+Q(C)+Q(E)+Q(H)+Q(I)	0.32	inches

Total Site Recharge		
R(T) =	R(A)+R(B)+R(C)+R(D)+R(E)+R(F)+R(G)+R(H)+R(I)+R(J)+Q(tot)	
R(T) =	**29.41**	**inches**

NPV

SIMULATION OF NITROGEN IN RECHARGE (SONIR)

SHEET 3

NELSON, POPE & VOORHIS, LLC MICROCOMPUTER MODEL

Wainscott Commercial Center - Existing Conditions/Alternative 1

SITE NITROGEN BUDGET

A	*Sanitary Nitrogen-Residential*	*Value*	*Units*
1	Number of Dwellings	0	units
2	Persons per Dwelling	0.00	capita
3	P = Population	0.00	capita
4	N = Nitrogen per person	10	lbs
6	N = (total; pre loss/removal)	0	lbs
7	LR = Leaching Rate	84%	percent
8	N(S) = P x N x LR	0.00	lbs
9	N = loss/removed	0.00	lbs

C	*Sanitary Nitrogen (Wastewater Design Flow)*		
1	CF = Commercial/STP Flow	964	gal/day
2	CF = Commercial/STP Flow	1,331,790	liters/yr
5	N =Nitrogen	50.00	mg/l
6	N = Nitrogen	146.83	lbs
7	LR = Leaching Rate	84%	percent
8	N(S) = CF x N x LR	55,935,184	milligrams
9	N(S) = Sanitary Nitrogen	123.34	lbs
10	N = loss/removed	23.49	lbs

E	*Fertilized Land (Fertilized Landscaping)*		
1	A = Area of Land Fertilized	55,757	sq ft
2	AR = Application Rate	2.00	lbs/1000 sf
3	N(T) = Nitrogen (total applied)	111.51	lbs
4	LR = Leaching Rate	20%	percent
5	N(F1) = A x AR x LR	22.30	lbs
6	N = loss/removed	89.21	lbs

G	*Atmospheric Nitrogen (existing condition)*		
1	Application Load	0.041	lbs/1000 sf
2	Area of Natural/Wetlands/1000 sf	1,928	1000 sf
3	Leaching Rate	25%	percent
4	Atmos. N Load-1 (natural/wetlands)	19.76	lbs/year
5	Area of turf/landscaped/1000 sf	56	1000 sf
6	Leaching Rate	20%	percent
7	Atmos. N Load-2 (golf/turf)	0.46	lbs/year
8	Area of Impervious/Agricult/1000 sf	34	1000 sf
9	Leaching Rate	40%	percent
10	Atmos. N Load-3 (ag; imperv; other)	0.56	lbs/year
11	N(at) = N Load 1 + 2 +3	20.77	lbs
12	N = loss/removed	61.94	lbs

B	*Cat Waste Nitrogen*	*Value*	*Units*
1	Number of Cats per Dwelling	0.19	cats/dwelling
2	Number of Cats (Cats/dwelling x dwellings)	0	cats
3	Cat Waste Nitrogen Load	3.22	lbs/cat/year
4	N(p) = AR x cats x Adjustment (if applicable)	0.00	lbs/year
5	LR = Leaching Rate	25%	percent
6	N(P) = N(p) x LR	0.00	lbs
7	N = (loss/removed)	0.00	lbs

B'	*Dog Waste Nitrogen*	*Value*	*Units*
1	Number of Dogs per Dwelling	0.35	dogs/dwelling
2	Number of Dogs (Dogs/dwelling x dwellings)	0	dogs
3	Dog Waste Nitrogen Load	4.29	lbs/dog/year
4	N(p) = AR x dogs x Adjustment (if applicable)	0.00	lbs/year
5	LR = Leaching Rate	25%	percent
6	N(P) = N(p) x LR	0.00	lbs
7	N = (loss/removed)	0.00	lbs

D	*Water Supply Nitrogen (other than wastewater, if applicable)*		
1	WDF = Wastewater Design Flow	0	gal/day
2	WDF = Wastewater Design Flow	0	liters/yr
3	N = Nitrogen in Water Supply	50.00	mg/l
4	N(WW) = WDF x N	0	milligrams
5	N(WW) = Wastewater Nitrogen	0.00	lbs

F	*Fertilized Land (Unfertilized Landscaping)*		
1	A = Area of Land Fertilized 2	0	sq ft
2	AR = Application Rate	0.00	lbs/1000 sf
3	N(T) = Nitrogen (total applied)	0.00	lbs
4	LR = Leaching Rate	0%	percent
5	N(F2) = A x AR x LR	0.00	lbs
6	N = loss/removed	0.00	lbs

H	*Irrigation Nitrogen*		
1	R = Irrigation Recharge (inches)	0.12	inches
2	R = Irrigation Rate (feet)	0.0096	feet
3	A = Area of Land Irrigated	1,208,354	sq ft
4	R(I) = R(irr) x A	11,589	cu ft
5	R(I) = Site Irrigation (liters)	328,212	liters
6	N = Nitrogen in Water Supply	2.00	mg/l
7	N(T) = Nitrogen (total applied)	1.45	lbs
8	LR = Leaching Rate	10%	percent
9	N(irr) = R(I) x N x LR	65,642	milligrams
10	N(irr) = Irrigation Nitrogen	0.14	lbs
11	N = loss/removed	1.30	lbs

Total Site Nitrogen		
N=	N(S) + N(P) + N(WW) + N(F1) + N(F2) + N(ppt) + N(irr)	
N=	**166.56**	lbs

NPV

SIMULATION OF NITROGEN IN RECHARGE (SONIR)

NELSON, POPE & VOORHIS, LLC MICROCOMPUTER MODEL

NAME OF PROJECT **Wainscott Commercial Center - Existing Conditions/Alternative 1**
Wainscott, NY

FINAL COMPUTATIONS

A	*Nitrogen in Recharge (concentr.)*	*Value*	*Units*
1	N = Total Nitrogen (lbs)	166.56	lbs
2	N = Total Nitrogen (milligrams)	75,616,492	milligrams
3	R(T) = Total Recharge (inches)	29.41	inches
4	R(T) = Total Recharge (feet)	2.45	feet
5	A = Area of Site	3,071,416	sq ft
6	R = R(T) x A	7,528,776	cu ft
7	R = Site Recharge Volume	213,214,948	liters
9	NR = N/R	0.35	mg/l

CONCENTRATION OF
NITROGEN IN RECHARGE

0.35

A	*Nitrogen in Recharge*	*Value*	*Units*
1	N = Total Nitrogen (lbs)	166.56	lbs
2	N = Total Nitrogen (milligrams)	75,616,492	milligrams
3	R(T) = Total Recharge (inches)	29.41	inches
4	R(T) = Total Recharge (feet)	2.45	feet
5	A = Area of Site	3,071,416	sq ft
6	R = R(T) x A	7,528,776	cu ft
7	R = Site Recharge Volume	213,214,948	liters
9	NR = N/R	0.35	mg/l

B	*Site Recharge Summary*	*Value*	*Units*
1	R(T) = Total Site Recharge	29.41	inches/yr
2	R = Site Recharge Volume	7,528,776	cu ft/yr
3	R = Site Recharge Volume	56,319,163	gal/yr
4	R = Site Recharge Volume	56.32	MG/yr

Conversions used in SONIR	
Acres x 43,560 = Square Feet	Gallons x 0.1337 = Cubic Feet
Cubic Feet x 7.48052 = Gallons	Gallons x 3.785 = Liters
Cubic Feet x 28.32 = Liters	Grams / 1,000 = Milligrams
Days x 365 = Years	Grams x 0.002205 = Pounds
Feet x 12 = Inches	Milligrams / 1,000 = Grams

Nitrogen Load Summary - On-Site	**Load**	**Percent**
Sanitary Nitrogen (On-Site Wastewater)	123.34	74.05%
Fertilized Landscaping	22.30	13.39%
Dog Waste Nitrogen	0.00	0.00%
Cat Waste Nitrogen	0.00	0.00%
Atmospheric Nitrogen	20.77	12.47%
Irrigation Nitrogen	0.14	0.09%
Total Pounds Nitrogen	166.56	100.00%

NPV

APPENDIX E-3

SONIR WAINSCOTT
PROPOSED PROJECT

SIMULATION OF NITROGEN IN RECHARGE (SONIR)

NELSON, POPE & VOORHIS, LLC MICROCOMPUTER MODEL

NAME OF PROJECT — **Wainscott Commercial Center - Proposed Project**
Wainscott, NY

DATA INPUT FIELD

A	Site Recharge Parameters	Value	Units
1	Area of Site	70.51	acres
2	Precipitation Rate	50.10	inches
3	Acreage of Fertilized Landscaping	0.00	acres
4	Fraction of Land in above	0.000	fraction
5	Evapotranspiration from above	21.20	inches
6	Runoff from above	0.50	inches
7	Acreage of Unfertilized Landscaping	31.31	acres
8	Fraction of above	0.444	fraction
9	Evapotranspiration from above	21.20	inches
10	Runoff from above	0.50	inches
11	Acreage of Unvegetated/Dirt Roads	0.00	acres
12	Fraction of above	0.000	fraction
13	Evapotranspiration from above	21.20	inches
14	Runoff from above	0.00	inches
15	Acreage of Water/Ponds	0.00	acres
16	Fraction of Site in above	0.000	fraction
17	Evaporation from above	30.00	inches
18	Makeup Water (if applicable)	0.00	inches
19	Acreage of Natural	9.20	acres
20	Fraction of above	0.130	fraction
21	Evapotranspiration from above	21.20	inches
22	Runoff from above	0.50	inches
23	Acreage of Impervious/Paved/Bldgs	30.00	acres
24	Fraction of Land in above	0.425	fraction
25	Evapotrans. from above	5.01	inches
26	Runoff from Impervious	0.00	inches
23	Acreage of Other	0.00	acres
24	Fraction of Land in above	0.000	fraction
25	Evapotrans. from above	21.20	inches
26	Runoff from above	0.00	inches
27	Acreage of Land Irrigated	0.00	acres
28	Fraction of Land Irrigated	0.000	fraction
29	Irrigation Rate	27.74	inches
30	Number of Dwellings	0	units
31	Water Use per Dwelling	0	gal/day
32	Wastewater Design Flow (existing uses)	16,016	gal/day

B	Nitrogen Budget Parameters	Value	Units
1	Persons per Dwelling	0.00	persons
2	Nitrogen per Person per Year	10.0	lbs
3	a. Sanitary Nitrogen Leaching Rate	84%	percent
3	b. Treated Sanitary Nitrogen Leaching Rate	100%	percent
4	Fertilized Landscaping	0.00	acres
5	Fertilizer Application Rate (for above)	2.00	lbs/1000 sq ft
6	Fertilizer Nitrogen Leaching Rate (for above)	20%	percent
7	Fertilized Land (other, if applicable)	0.00	acres
8	Fertilizer Application Rate (for above)	0.00	lbs/1000 sq ft
9	Fertilizer Nitrogen Leaching Rate (for above)	0%	percent
10	Outdoor Cat Population	0.19	pets/dwelling
11	Cat Waste Nitrogen Load	3.22	lbs/pet/year
12	Outdoor Dog Population	0.35	pets/dwelling
13	Dog Waste Nitrogen Load	4.29	lbs/pet/year
14	Pet Waste Nitrogen Leaching Rate	25%	percent
15	Area of Land Irrigated	0.00	acres
16	Irrigation Rate	27.74	inches
17	Irrigation Nitrogen Leaching Rate	10%	percent
18	Atmospheric Nitrogen Application/Load	0.04	lbs/1000 sq ft
19	Atmos. N Leaching Rate (Natural/Wetlands)	25%	percent
20	Atmos. N Leaching Rate (Turf/Landscaped)	20%	percent
21	Atmos. N. Leaching Rate (Ag; Imperv; Other)	40%	percent
22	Nitrogen in Water Supply	2.00	mg/l
23	Nitrogen in Sanitary Flow	19.00	mg/l

C	Comments
1)	Please refer to user manual for data input instructions; updated per LINAP.
	Total Acreage Check 70.51 100%

NPV

SIMULATION OF NITROGEN IN RECHARGE (SONIR)

NELSON, POPE & VOORHIS, LLC MICROCOMPUTER MODEL

Wainscott Commercial Center - Proposed Project

SITE RECHARGE COMPUTATIONS

A	*Fertilized Landscaping*	*Value*	*Units*
1	A = Fraction of Land in Cover Type	0.000	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	21.20	inches
4	Q = Runoff Rate	0.50	inches
5	R(a) = P - (E + Q)	28.40	inches
6	R(A) = R(a) x A	0.00	inches

B	*Unfertilized Landscaping*	*Value*	*Units*
1	A = Fraction of Land in Cover Type	0.444	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	21.20	inches
4	Q = Runoff Rate	0.50	inches
5	R(b) = P - (E + Q)	28.40	inches
6	R(B) = R(b) x A	12.61	inches

C	*Unvegetated/Dirt Roads*	*Value*	*Units*
1	A = Fraction of Land in Cover Type	0.000	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	21.20	inches
4	Q = Runoff Rate	0.00	inches
5	R(c) = P - (E + Q)	28.90	inches
6	R(C) = R(c) x A	0.00	inches

D	*Water/Ponds*		
1	A = Fraction of Site in Water	0.000	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evaporation Rate	30.00	inches
4	Q = Runoff Rate	0.00	inches
5	M = Makeup Water	0.00	inches
6	R(d) = {P - (E+Q)} - M	20.10	inches
7	R(D) = R(d) x A	0.00	inches

E	*Natural*		
1	A = Fraction of Land in Cover Type	0.130	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	21.20	inches
4	Q = Runoff Rate	0.50	inches
5	R(e) = P - (E + Q)	28.40	inches
6	R(E) = R(e) x A	3.71	inches

F	*Impervous/Paved/Roads*	*Value*	*Units*
1	A = Fraction of Land in Cover Type	0.425	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	5.01	inches
4	Q = Runoff Rate	0.00	inches
5	R(f) = P - (E + Q)	45.09	inches
6	R(F) = R(f) x A	19.18	inches

G	*Other*		
1	A = Fraction of Land in Cover Type	0.000	fraction
2	P = Precipitation Rate	50.10	inches
3	E = Evapotranspiration Rate	21.20	inches
4	Q = Runoff Rate	0.00	inches
5	R(g) = P - (E + Q)	28.90	inches
6	R(G) = R(g) x A	0.00	inches

H	*Irrigation Recharge*		
1	A = Fraction of Land Irrigated	0.000	fraction
2	I = Irrigation Rate	27.74	inches
3	E = Evaptranspiration Rate	21.40	inches
4	Q = Runoff Rate	0.00	inches
5	R(h) = I - (E + Q)	6.34	inches
6	R(H) = R(H) x A	0.00	inches

I	*Wastewater Recharge*		
1	WDF = Wastewater Design Flow	16,016	gal/day
2	WDF = Wastewater Design Flow	781,589	cu ft/yr
3	A = Area of Site	3,071,416	sq ft
4	R(j) = WDF/A	0.25	feet
5	R(I) = Wastewater Recharge	3.05	inches

J	*Runoff Recharge*		
1	Q(A) = Runoff from Landscaped	0.000	inches
2	Q(B) = Runoff from Unfertilized Landscaping	0.222	inches
3	Q(C) = Runoff from Unvegetated	0.000	inches
4	Q(E) = Runoff from Natural	0.065	inches
5	Q(H) = Runoff from Other	0.000	inches
6	Q(I) = Runoff from Irrigation	0.00	inches
7	Q(tot) = Q(A)+Q(B)+Q(C)+Q(E)+Q(H)+Q(I)	0.29	inches

Total Site Recharge		
R(T) =	R(A)+R(B)+R(C)+R(D)+R(E)+R(F)+R(G)+R(H)+R(I)+R(J)+Q(tot)	
R(T) =	**38.84**	**inches**

NPV

SIMULATION OF NITROGEN IN RECHARGE (SONIR)

NELSON, POPE & VOORHIS, LLC MICROCOMPUTER MODEL

Wainscott Commercial Center - Proposed Project

SITE NITROGEN BUDGET

A	Sanitary Nitrogen-Residential	Value	Units
1	Number of Dwellings	0	units
2	Persons per Dwelling	0.00	capita
3	P = Population	0.00	capita
4	N = Nitrogen per person	10	lbs
6	N = (total; pre loss/removal)	0	lbs
7	LR = Leaching Rate	84%	percent
8	N(S) = P x N x LR	0.00	lbs
9	N = loss/removed	0.00	lbs

C	Sanitary Nitrogen (Wastewater Design Flow)		
1	CF = Commercial/STP Flow	16,016	gal/day
2	CF = Commercial/STP Flow	22,126,504	liters/yr
5	N =Nitrogen	19.00	mg/l
6	N = Nitrogen	926.99	lbs
7	LR = Leaching Rate	84%	percent
8	N(S) = CF x N x LR	353,139,010	milligrams
9	N(S) = Sanitary Nitrogen	778.67	lbs
10	N = loss/removed	148.32	lbs

E	Fertilized Land (Fertilized Landscaping)		
1	A = Area of Land Fertilized	0	sq ft
2	AR = Application Rate	2.00	lbs/1000 sf
3	N(T) = Nitrogen (total applied)	0.00	lbs
4	LR = Leaching Rate	20%	percent
5	N(F1) = A x AR x LR	0.00	lbs
6	N = loss/removed	0.00	lbs

G	Atmospheric Nitrogen (existing condition)		
1	Application Load	0.041	lbs/1000 sf
2	Area of Natural/Wetlands/1000 sf	1,765	1000 sf
3	Leaching Rate	25%	percent
4	Atmos. N Load-1 (natural/wetlands)	18.09	lbs/year
5	Area of turf/landscaped/1000 sf	0	1000 sf
6	Leaching Rate	20%	percent
7	Atmos. N Load-2 (golf/turf)	0.00	lbs/year
8	Area of Impervious/Agricult/1000 sf	1,307	1000 sf
9	Leaching Rate	40%	percent
10	Atmos. N Load-3 (ag; imperv; other)	21.43	lbs/year
11	N(at) = N Load 1 + 2 +3	39.52	lbs
12	N = loss/removed	86.41	lbs

B	Cat Waste Nitrogen	Value	Units
1	Number of Cats per Dwelling	0.19	cats/dwelling
2	Number of Cats (Cats/dwelling x dwellings)	0	cats
3	Cat Waste Nitrogen Load	3.22	lbs/cat/year
4	N(p) = AR x cats x Adjustment (if applicable)	0.00	lbs/year
5	LR = Leaching Rate	25%	percent
6	N(P) = N(p) x LR	0.00	lbs
7	N = (loss/removed)	0.00	lbs

B'	Dog Waste Nitrogen	Value	Units
1	Number of Dogs per Dwelling	0.35	dogs/dwelling
2	Number of Dogs (Dogs/dwelling x dwellings)	0	dogs
3	Dog Waste Nitrogen Load	4.29	lbs/dog/year
4	N(p) = AR x dogs x Adjustment (if applicable)	0.00	lbs/year
5	LR = Leaching Rate	25%	percent
6	N(P) = N(p) x LR	0.00	lbs
7	N = (loss/removed)	0.00	lbs

D	Water Supply Nitrogen (other than wastewater, if applicable)		
1	WDF = Wastewater Design Flow	0	gal/day
2	WDF = Wastewater Design Flow	0	liters/yr
3	N = Nitrogen in Water Supply	19.00	mg/l
4	N(WW) = WDF x N	0	milligrams
5	N(WW) = Wastewater Nitrogen	0.00	lbs

F	Fertilized Land (Unfertilized Landscaping)		
1	A = Area of Land Fertilized 2	0	sq ft
2	AR = Application Rate	0.00	lbs/1000 sf
3	N(T) = Nitrogen (total applied)	0.00	lbs
4	LR = Leaching Rate	0%	percent
5	N(F2) = A x AR x LR	0.00	lbs
6	N = loss/removed	0.00	lbs

H	Irrigation Nitrogen		
1	R = Irrigation Recharge (inches)	0.00	inches
2	R = Irrigation Rate (feet)	0.0000	feet
3	A = Area of Land Irrigated	1,208,354	sq ft
4	R(I) = R(irr) x A	0	cu ft
5	R(I) = Site Irrigation (liters)	0	liters
6	N = Nitrogen in Water Supply	2.00	mg/l
7	N(T) = Nitrogen (total applied)	0.00	lbs
8	LR = Leaching Rate	10%	percent
9	N(irr) = R(I) x N x LR	0	milligrams
10	N(irr) = Irrigation Nitrogen	0.00	lbs
11	N = loss/removed	0.00	lbs

Total Site Nitrogen		
N=	N(S) + N(P) + N(WW) + N(F1) + N(F2) + N(ppt) + N(irr)	
N=	**818.19**	lbs

NPV

SIMULATION OF NITROGEN IN RECHARGE (SONIR)

NELSON, POPE & VOORHIS, LLC MICROCOMPUTER MODEL

NAME OF PROJECT **Wainscott Commercial Center - Proposed Project**
Wainscott, NY

FINAL COMPUTATIONS

A	*Nitrogen in Recharge (concentr.)*	*Value*	*Units*
1	N = Total Nitrogen (lbs)	818.19	lbs
2	N = Total Nitrogen (milligrams)	371,458,418	milligrams
3	R(T) = Total Recharge (inches)	38.84	inches
4	R(T) = Total Recharge (feet)	3.24	feet
5	A = Area of Site	3,071,416	sq ft
6	R = R(T) x A	9,941,672	cu ft
7	R = Site Recharge Volume	281,548,162	liters
9	NR = N/R	1.32	mg/l

CONCENTRATION OF
NITROGEN IN RECHARGE

1.32

A	*Nitrogen in Recharge*	*Value*	*Units*
1	N = Total Nitrogen (lbs)	818.19	lbs
2	N = Total Nitrogen (milligrams)	371,458,418	milligrams
3	R(T) = Total Recharge (inches)	38.84	inches
4	R(T) = Total Recharge (feet)	3.24	feet
5	A = Area of Site	3,071,416	sq ft
6	R = R(T) x A	9,941,672	cu ft
7	R = Site Recharge Volume	281,548,162	liters
9	NR = N/R	1.32	mg/l

B	*Site Recharge Summary*	*Value*	*Units*
1	R(T) = Total Site Recharge	38.84	inches/yr
2	R = Site Recharge Volume	9,941,672	cu ft/yr
3	R = Site Recharge Volume	74,368,879	gal/yr
4	R = Site Recharge Volume	74.37	MG/yr

Conversions used in SONIR	
Acres x 43,560 = Square Feet	Gallons x 0.1337 = Cubic Feet
Cubic Feet x 7.48052 = Gallons	Gallons x 3.785 = Liters
Cubic Feet x 28.32 = Liters	Grams / 1,000 = Milligrams
Days x 365 = Years	Grams x 0.002205 = Pounds
Feet x 12 = Inches	Milligrams / 1,000 = Grams

Nitrogen Load Summary - On-Site	**Load**	**Percent**
Sanitary Nitrogen (On-Site Wastewater)	778.67	95.17%
Fertilized Landscaping	0.00	0.00%
Dog Waste Nitrogen	0.00	0.00%
Cat Waste Nitrogen	0.00	0.00%
Atmospheric Nitrogen	39.52	4.83%
Irrigation Nitrogen	0.00	0.00%
Total Pounds Nitrogen	818.19	100.00%

NPV

APPENDIX F-1

NPV QUALIFICATIONS

Charles J. Voorhis, AICP, CEP

NPV
NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • LAND USE • PLANNING

Title

Managing Partner of Firm, Nelson, Pope & Voorhis, LLC; Melville, New York

Education & Training

- SUNY at Stony Brook; Master of Science in Environmental Engineering, concentration in Water Resource Management, 1984
- Princeton Associates; Groundwater Pollution and Hydrology Short Course, Princeton, New Jersey, 1983
- New York State Health Department, Environmental Health Training Course, Hauppauge, New York, 1982
- Southampton College of Long Island University; Bachelor of Science in Environmental Geology, 1977
- OSHA 10-Hour Construction Industry Training
-

Professional Affiliations, Certifications & Training

- American Planning Association, Washington, D.C.
- National Association of Environmental Professionals, Alexandria, VA
- Environmental Assessment Association, Scottsdale, Arizona
- American Water Resources Association, Syracuse, New York
- New York Water Pollution Control Association, Riverdale, NY
- Water Pollution Control Federation, Washington, D.C.
- Long Island Seaport & EcoCenter, Inc., Director, Port Jefferson, NY
- Boy Scouts of America, Trained Scoutmaster, Nathanial Woodhull District,
- Historical Society of Port Jefferson, Trustee, Port Jefferson, NY
- Environmental Conservation Board, Village of Port Jefferson, NY
- Port Jefferson Village, Waterfront Advisory Committee, Port Jefferson, NY
- Town of Brookhaven Mount Sinai Harbor Advisory Committee, Medford, NY
- Brookhaven Conservation Advisory Council, Medford, NY

Professional Experience

Charles Voorhis is a professional planner (AICP) and a certified environmental professional (CEP) with both private sector and public sector experience. Mr. Voorhis has managed municipal projects including regional and local planning studies, wetlands and shoreline restoration, environmental impact statements, permit compliance and environmental analysis. Charles Voorhis has over 39 years of professional environmental planning experience, including the position of Director of Environmental Protection of the Town of Brookhaven, supervising the environmental implementation of the Town of Brookhaven Comprehensive Plan Update and secured grants under the Local Waterfront Revitalization Program. As a private consultant for over 23 years, Mr. Voorhis has managed environmental planning and analysis of large scale planning and development projects throughout Nassau and Suffolk Counties. Recent projects include a study to eradicate aquatic invasive/nuisance species in upper and lower Canaan Lakes, Yaphank, stormwater management studies on the north and south shores for the Town of Brookhaven and Town of Islip, completion of the Water Supply Management & Watershed Protection Strategy for the Town of Southold, completion of the Suffolk County North Shore Embayments Watershed Management Plan, and completion of the Lake Agawam Comprehensive Management Plan, as well as numerous environmental impact statements, wetland and shoreline feasibility analyses and management plans.

Project Experience

- Great Cove Watershed Management Plan, 2011
- Town of Southold Comprehensive Plan Update, Economic Chapter, 2010
- Beaver Dam Creek Watershed Management Plan, 2009
- Lake Agawam Comprehensive Management Plan, 2009
- Southold TDR Planning Report and GEIS, 2008
- The Residences at North Hills, DEIS and FEIS, 2005-06
- Town of Southold Comprehensive Implementation Strategy, 2003
- Southampton Agricultural Opportunities Subdivision, DEIS, FEIS and Findings, 2001
- Old Orchard Woods, DEIS and FEIS, 2000
- Town of Smithtown Armory Park, DEIS, 2000
- Town of Southold Water Supply Management & Water Protection Strategy, 2000
- Knightsbridge Gardens, DEIS and FEIS, 1997
- Camelot Village @ Huntington, DEIS, 1997
- Airport International Plaza, DEIS and FEIS, 1996
- Price Club @ New Rochelle, DEIS and FEIS, 1995
- Commack Campus Park @ Commack DEIS and FEIS, 1994
- Water Mill Shops @ Water Mill DEIS, 1993
- Town of Brookhaven Land Use Plan, 1987

Raymond Marino

NPV
NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • LAND USE • PLANNING

Title

Environmental Scientist
Long Island Office, New York

Education & Training

- Long Island University, Brookville, NY
  Masters of Science, December 2014
  Major: Earth Science
- Dowling College, Oakdale, NY
  Bachelor of Science, January 2010
  Major: Environmental Science,

Professional Affiliations, Certifications & Training

- Long Island Master Naturalist
- OSHA Certified Hazardous Waste Health and Safety Worker (40-Hour)
- OSHA Construction Safety and Health certificate (10-Hour)
- Certified in Wetlands Delineation
- First Aid trained
- Army Corps of Engineers Wetland Delineation/Regional Supplement/Waters of the United States Training

Professional Experience

Mr. Marino joined NP&V in September 2018. He is OSHA Certified as well as certified in Wetlands Delineation with 8 years of experience in environmental planning, SEQRA and Phase I and II Environmental Site Assessment (ESA) report preparation. His expertise includes site inspections, wetland delineations, wetland permitting, ecological assessments, and groundwater, soil and air testing. Mr. Marino performs environmental monitoring that includes habitat composition, analysis, delineation and field assessments for a variety of terrestrial and marine habitats. His most recent positions include an assistant site manager, environmental scientist and lab assistant.

Project Experience

- **Environmental Scientist, Nelson, Pope & Voorhis, LLC, Melville, NY**
  - Prepare Notice of Completion and Notice of Termination applications for PSEG-LI under General Permit
  - Ecological Assessments for Environmental Impact Statements
  - Wetland Permit applications with NYSDEC, Army Corps of Engineers (ACOE) and NYS Department of State (DOS)

- **Staff Scientist, VHB Engineering, Hauppauge, NY**
  Assisted in the preparation of Phase I Environmental Site Assessments (ESAs) and participated in field work associated with Phase II ESAs.
  - Assisted in many environmental planning activities including preparation of DEIS/FEISs in accordance with SEQRA, land use studies, and EAF preparation
  - Completed site inspections and groundwater, soil and air testing
  - Wrote out Phase I ESA reports
  - Collected samples at various sites across New York state
  - Performed data analysis of sample results with Phase II reports
  - Developed positive public relations with client affairs
  - Communicated with government institutions regarding FOIL applications
  - Applied for various records under FOIL
  - Performed ecological assessments
  - Performed wetland delineations

- **Independent Study- "Analysis of Gall Mortality" Dowling College, Oakdale, NY**
  Presented at Brookhaven National Laboratories: An Exploration of the Natural History of the Scrub Oak Gall-Maker. Conducted research involving tagging and collection of gall makingspecies in the Long Island Pine Barrens and laboratory study including microscope work and preservation of organisms.

- **Assistant Site Manager, TWA Flight 800 Memorial, Mastic Beach, NY**
  Maintained the memorial in all facets, including horticultural care, irrigation and electrical maintenance, and general grounds keeping.

- **Volunteer, Wertheim National Wildlife Refuge**
  Provided information at park in regards to flora and fauna, and administrative assistance to USFWS employees

APPENDIX F-2

BREEDING BIRD ATLAS

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NYS Breeding Bird Atlas

Block 7253B

2000-2005

ATLAS 2000

Navigation Tools	Block 7253B Summary	
Perform Another Search	Total Species:	72
Show All Records	Possible:	12
Sort by Field Card Order	Probable:	31
Sort by Taxonomic Order	Confirmed:	29
View 1985 Data		

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 7253B

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Red-winged Blackbird	*Agelaius phoeniceus*	FY	6/28/2002	Protected
Mallard	*Anas platyrhynchos*	FL	6/29/2003	Game Species
American Black Duck	*Anas rubripes*	P2	5/8/2004	Game Species
Gadwall	*Anas strepera*	P2	5/8/2004	Game Species
Ruby-throated Hummingbird	*Archilochus colubris*	X1	5/28/2004	Protected
Great Egret	*Ardea alba*	X1	5/31/2004	Protected
Tufted Titmouse	*Baeolophus bicolor*	FY	6/28/2002	Protected
Cedar Waxwing	*Bombycilla cedrorum*	S2	5/31/2004	Protected
Canada Goose	*Branta canadensis*	P2	5/8/2004	Game Species
Great Horned Owl	*Bubo virginianus*	T2	12/27/2003	Protected
Red-tailed Hawk	*Buteo jamaicensis*	P2	3/9/2002	Protected
Whip-poor-will	*Caprimulgus vociferus*	T2	6/26/2003	Protected-Special Concern
Northern Cardinal	*Cardinalis cardinalis*	FY	6/28/2002	Protected
House Finch	*Carpodacus mexicanus*	FY	6/29/2003	Protected
Hermit Thrush	*Catharus guttatus*	T2	5/30/2004	Protected
Brown Creeper	*Certhia americana*	T2	5/30/2004	Protected

Chimney Swift	*Chaetura pelagica*	X1	6/28/2002	Protected
Killdeer	*Charadrius vociferus*	P2	6/8/2003	Protected
Yellow-billed Cuckoo	*Coccyzus americanus*	T2	6/8/2003	Protected
Northern Flicker	*Colaptes auratus*	FL	7/10/2004	Protected
Northern Bobwhite	*Colinus virginianus*	X1	6/8/2003	Game Species
Eastern Wood-Pewee	*Contopus virens*	S2	6/8/2003	Protected
American Crow	*Corvus brachyrhynchos*	FY	6/28/2002	Game Species
Fish Crow	*Corvus ossifragus*	FL	6/29/2003	Protected
Blue Jay	*Cyanocitta cristata*	FL	7/10/2004	Protected
Mute Swan	*Cygnus olor*	NE	5/8/2004	Protected
Yellow Warbler	*Dendroica petechia*	T2	6/28/2002	Protected
Pine Warbler	*Dendroica pinus*	FL	6/27/2005	Protected
Gray Catbird	*Dumetella carolinensis*	FY	6/28/2002	Protected
Willow Flycatcher	*Empidonax traillii*	T2	6/29/2003	Protected
Common Yellowthroat	*Geothlypis trichas*	T2	6/28/2002	Protected
Barn Swallow	*Hirundo rustica*	FY	6/28/2002	Protected
Baltimore Oriole	*Icterus galbula*	FY	7/10/2004	Protected
Orchard Oriole	*Icterus spurius*	T2	6/8/2003	Protected
Eastern Screech-Owl	*Megascops asio*	X1	12/27/2003	Protected
Red-bellied Woodpecker	*Melanerpes carolinus*	T2	7/10/2004	Protected
Wild Turkey	*Meleagris gallopavo*	X1	4/10/2004	Game Species
Song Sparrow	*Melospiza melodia*	T2	4/21/2002	Protected
Northern Mockingbird	*Mimus polyglottos*	T2	6/28/2002	Protected
Brown-headed Cowbird	*Molothrus ater*	FL	7/10/2004	Protected
Great Crested Flycatcher	*Myiarchus crinitus*	P2	6/28/2002	Protected
Black-crowned Night-Heron	*Nycticorax nycticorax*	X1	5/31/2004	Protected
Osprey	*Pandion haliaetus*	P2	4/21/2002	Protected-Special Concern
House Sparrow	*Passer domesticus*	ON	6/28/2002	Unprotected
Ring-necked Pheasant	*Phasianus colchicus*	S2	6/28/2002	Game Species
Downy Woodpecker	*Picoides pubescens*	FY	6/28/2002	Protected
Hairy Woodpecker	*Picoides villosus*	T2	5/30/2004	Protected

Eastern Towhee	*Pipilo erythrophthalmus*	FL	7/10/2004	Protected
Scarlet Tanager	*Piranga olivacea*	X1	7/10/2004	Protected
Summer Tanager	*Piranga rubra*	X1	5/30/2004	Protected
Black-capped Chickadee	*Poecile atricapillus*	FY	6/28/2002	Protected
Blue-gray Gnatcatcher	*Polioptila caerulea*	FY	5/31/2004	Protected
Common Grackle	*Quiscalus quiscula*	FY	6/28/2002	Protected
Eastern Phoebe	*Sayornis phoebe*	T2	6/28/2002	Protected
American Woodcock	*Scolopax minor*	X1	6/26/2003	Game Species
Ovenbird	*Seiurus aurocapilla*	T2	6/28/2002	Protected
Eastern Bluebird	*Sialia sialis*	FL	6/28/2002	Protected
White-breasted Nuthatch	*Sitta carolinensis*	FL	7/10/2004	Protected
American Goldfinch	*Spinus tristis*	P2	6/28/2002	Protected
Chipping Sparrow	*Spizella passerina*	FY	6/28/2002	Protected
European Starling	*Sturnus vulgaris*	ON	4/21/2002	Unprotected
Tree Swallow	*Tachycineta bicolor*	ON	6/28/2002	Protected
Carolina Wren	*Thryothorus ludovicianus*	T2	6/28/2002	Protected
Brown Thrasher	*Toxostoma rufum*	T2	6/8/2003	Protected
House Wren	*Troglodytes aedon*	ON	6/8/2003	Protected
American Robin	*Turdus migratorius*	B2	4/22/2004	Protected
Eastern Kingbird	*Tyrannus tyrannus*	FL	7/10/2004	Protected
Blue-winged Warbler	*Vermivora pinus*	X1	6/8/2003	Protected
Warbling Vireo	*Vireo gilvus*	X1	6/8/2003	Protected
White-eyed Vireo	*Vireo griseus*	S2	5/8/2004	Protected
Red-eyed Vireo	*Vireo olivaceus*	T2	5/31/2004	Protected
Mourning Dove	*Zenaida macroura*	FL	7/10/2004	Protected

Current Date: 12/26/2018

APPENDIX F-3

NEW YORK STATE NATURAL HERITAGE PROGRAM CORRESPONDENCE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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

January 10, 2018

Hannah Emouna
Nelson, Pope & Voorhis
572 Walt Whitman Road
Melville, NY 11747

Re: Wainscott Commercial Center
County: Suffolk Town/City: East Hampton

Dear Ms. Emouna:

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

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

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

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 1 Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Andrea Chaloux

Andrea Chaloux
Environmental Review Specialist
New York Natural Heritage Program

1563

The following rare plants, rare animals, and significant natural communities have been documented at the project site, or in its vicinity.

We recommend that potential onsite and offsite impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following animal, while not listed by New York State as Endangered or Threatened, is of conservation concern to the state, and is considered rare by the New York Natural Heritage Program.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*HERITAGE CONSERVATION STATUS*
Moths			
Coastal Barrens Buckmoth	*Hemileuca maia ssp. 5*	Special Concern	Imperiled in NYS and Globally Uncommon

East Hampton Airport, 1983-fall: The moths were observed in pine oak barrens disturbed by development. 8617

The following significant natural communities are considered significant from a statewide perspective by the NY Natural Heritage Program. They are either occurrences of a community type that is rare in the state, or a high-quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*HERITAGE CONSERVATION STATUS*
Upland/Terrestrial Communities			
Coastal Oak-Heath Forest			High-quality Occurrence of Uncommon Community Type

Long Pond Greenbelt: This is a very large mature occurrence with several large intact cores lacking exotic plants and well recovered from historical cutting. The community is located in a forested landscape that is relatively large for the coastal region. 3021

Pitch Pine-Oak Forest High-quality Occurrence

East Hampton Airport: The site is not as extensive or pristine as other sites. 3983

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

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at www.natureserve.org/explorer, and from USDA's Plants Database at http://plants.usda.gov/index.html (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.dec.ny.gov/animals/97703.html for Ecological Communities of New York State.

APPENDIX G

COMMUNITY SERVICE CORRESPONDENCE

RECEIVED
OCT 15 2019
NELSON & POPE

SS - original
CV - emailing

SUFFOLK COUNTY WATER AUTHORITY
Administrative Offices: 4060 Sunrise Highway, Oakdale, New York 11769-0901
(631) 563-0236
Fax (631) 563-0370

Timothy J. Hopkins
General Counsel

October 10, 2019

Charles J. Voorhis, AICP
Managing Partner
Nelson, Pope & Voorhis, LLC
572 Walt Whitman Road
Melville, NY 11747

RE: Information Request - Wainscott Commercial Center, 30 Montauk Hwy, Wainscott
SCTM# 0300-192.00-02.00-006.002, 006.003, 006.004,
006.005, 006.006, 006.007

Dear Mr. Voorhis:

Thank you for following through on providing an updated letter and request for information which we discussed on April 29, 2019.

SCWA offers the following information in response to your recent letter and request.

Enclosed herewith are the well fields that are within Distribution Zone 23. SCWA's Stephen Hands Path and Townline Road well fields are closest to the project site.

Private wells in the area have been impacted by PFOA/PFOS contamination and SCWA continues to take on several hundred new customers in response to contamination of private wells.

The entire South Fork provides challenges in meeting peak water demands during the summer months due to the ever increasing pressure for irrigation demand on SCWA's system.

The area continues to grow in new services and SCWA has and continues to respond to this demand with the development of new supply, water main replacement and up sizing and construction of ground water storage to meet the increasing demands. However the ability to continue finding additional supply is limited by lack of properties available to develop well fields.

As you indicated in your letter, build out of the site will occur over a number of years and possible decades therefore peak water demand on a yearly basis cannot be estimated at this time.

Without knowing what type of businesses may occupy this site in the future and what their demand may be makes' it difficult to fully analyze prospective issues as they relate to supply.

If you have any questions on this matter, please give me a call at 631-563-0375.

Very truly yours,

Kimberly Kennedy

Kimberly Kennedy
Assistant to General Counsel

Enc.

Run Date: 09/10/19 @ 09:00 SCWA Production Control Department

Bus Date: 09/06/19 DEC PRODUCTION REPORT PRODCTN_S Page 24

PERIOD: 08/19 ZONE: 23 SOUTH FORK LOW

PUMP STATION	PUMPAGE (THOUSANDS)	AVERAGE FLOW (GPM)	WELL NO	OPERATING HOURS	AQUIFER	NYS WELL NUMBER
ACCABONAC RD	52,945	921	1	486	G	S-123717
			2	472	G	S-123718
BLANK LN	33,060	372	1	504	G	S-128774
			2	488	G	S-130299
			3	488	G	S-134150
BRIDGEHAMPTON RD	60,561	566	2A	427	G	S-083707
			3A	429	G	S-120485
			4	465	G	S-049422
			5A	462	G	S-131191
CROSS HWY	11,847	225	1	437	G	S-030227
			2	438	G	S-030228
DIVISION ST	74,935	709	1A	448	G	S-128139
			2A	361	G	S-132776
			3	463	G	S-062855
			4	489	M	S-096352
EDGE OF WOODS RD	85,637	916	1	528	G	S-069511
			2	504	M	S-071892
			3	526	G	S-120091
LONG SPRINGS RD	71,636	399	1A	517	G	S-117831
			3B	502	G	S-122603
			4B	557	G	S-122602
			5B	428	G	S-122601
			6	556	M	S-067819
			7	426	M	S-112293
LUMBER LN	48,506	397	4A	548	G	S-131131
			5	475	M	S-078612
			6	523	M	S-123937
			7	489	M	S-130044
NORTH MAGEE ST	67,515	933	1	308	G	S-074865
			2	226	G	S-079293
			3	O/S	G	S-115706
			4	671	G	S-133926

Run Date: 09/10/19 @ 09:00 SCWA Production Control Department PRODCTN_S Page 25

Bus Date: 09/06/19 DEC PRODUCTION REPORT

PERIOD: 08/19 ZONE: 23 SOUTH FORK LOW

PUMP STATION	PUMPAGE (THOUSANDS)	AVERAGE FLOW (GPM)	WELL NO	OPERATING HOURS	AQUIFER	NYS WELL NUMBER
OAKVIEW HWY	38,725	602	1A	342	G	S-099275
			2A	O/S	M	S-119865
			3	394	G	S-078310
			4	335	G	S-133799
SAG HARBOR TPKE	58,041	1,198	1	411	M	S-102721
			2	396	M	S-115545
SCUTTLEHOLE RD	83,451	1,068	1A	63	M	S-128458
			2	617	M	S-106977
			3	622	M	S-115975
SPRING CLOSE HWY	69,740	813	1A	435	G	S-118818
			2	462	G	S-066733
			3	432	G	S-121948
			4	99	G	S-134571
STEPHEN HANDS PATH	32,121	651	1	366	G	S-135324
			2	456	G	S-135325
TOWNLINE RD EH	59,336	859	1	384	M	S-118737
			2	388	G	S-120019
			3	383	G	S-130940
TUCKAHOE RD	10,817	426	1	267	G	S-025449
			2	156	G	S-031471
WEST PROSPECT ST	60,907	340	1	498	G	S-055028
			2A	303	M	S-099014
			3	550	G	S-125974
			4	539	G	S-125975
			5	538	G	S-128475
			6	550	G	S-131738

ZONE: 23 STATIONS LISTED: 17 919,980

PEAK DAY FOR ZONE 35,871,839 GALLONS ON 08/07/19

TOWN OF EAST HAMPTON
POLICE DEPARTMENT
131 Wainscott Northwest Road
P.O. Box 909
Wainscott, NY 11975-0909

Michael D. Sarlo, Chief
Accredited Police Agency

631-537-6863
Fax-631-537-6833

RECEIVED
OCT 15 2019 SS
CV-emailed
NELSON & POPE

October 9, 2019

Charles J. Voorhis, CEP, AICP
Managing Partner
Nelson, Pope & Voorhis, LLC
572 Walt Whitman Road
Melville, NY 11747-2198

Dear Mr. Voorhis:

In response to your recent letter, the EHTPD does in fact provide public safety and emergency response services for the area in question, and is capable of handling the increase in calls that may be associated with the commercial development of this site. There are always additional concerns regarding growth and increase in demands, which would include traffic patterns in and around the property in question. Responding to calls for service, such as medical aided cases, commercial alarms, civil disputes, etc. are part of the routine response provided by our agency which we would anticipate a gradual increase as the development progresses. Providing proactive patrols of commercial business buildings and grounds are another area wherein our demand would also increase.

If you have any questions or need additional date from the department, please do not hesitate to contact me.

Regards,

Michael D. Sarlo, Chief

NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING
www.nelsonpopevoorhis.com

August 29, 2019

PSEG Long Island
Project Management Office
999 Stewart Avenue
Bethpage, NY 11714
Attn: Lara Pomi-Urbat

Re: Request for Resource Availability
Wainscott Commercial Center
30 Montauk Highway, Wainscott, NY
NPV #17071

Dear Ms. Pomi-Urbat,

On April 25, 2019, Nelson, Pope & Voorhis, LLC (NPV) requested information regarding service capacity and electric service capabilities for the above-referenced project located at 30 Montauk Highway, hamlet of Wainscott, Town of East Hampton. We are writing as a follow up regarding this previous request.

NPV is currently preparing an environmental assessment evaluating the potential impacts that may result from redevelopment of the above-referenced property. The commercial-industrial zoned property has historically been utilized as a sand and gravel mine, and is proposed to be subdivided in 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF, respectively. Two proposed lots on the southern portion of the subject property will contain two existing uses, Suffolk Cement and Southampton Masonry, and will be approximately 180,364 SF in size and 260,732 SF in size. All vacant lots will require energy supply as they are developed over time. However, the timing of such developments and proposed uses will occur incrementally over the next decade or more, based on market conditions and demand for commercial-industrial uses. As a result, it is anticipated that buildout of the site will occur over a number of years and possibly decades.

I would like to request the following information:

- The capacity of the existing electric lines serving the site or area;
- Written confirmation that PSEG Long Island will serve the site with electricity as each lot becomes developed; and
- Information pertaining to any planned electrical distribution improvement projects in the area as a result of capital improvements or other development projects/new demand.

If you have any additional information or comments which would be pertinent, please include them. A preliminary site plan and location map are attached for your reference. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE & VOORHIS, LLC

Charles J. Voorhis, CEP, AICP
Managing Partner

CORPORATE OFFICE
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NELSON, POPE & VOORHIS, LLC
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www.nelsonpopevoorhis.com

August 29, 2019

Bridgehampton Volunteer Fire Department
64 School Street
P.O. Box 1280
Bridgehampton, NY 11932
Attn: Chief Charles Broadmeadow

Re: Wainscott Commercial Center
30 Montauk Highway
Wainscott, NY
NPV # 17071

Dear Chief Broadmeadow,

On April 25, 2019, Nelson, Pope & Voorhis, LLC (NPV) requested information regarding the Bridgehampton Volunteer Fire Department's facilities, services, and capabilities for the above-referenced project located at 30 Montauk Highway, hamlet of Wainscott, Town of East Hampton. We are writing as a follow up regarding this previous request.

NPV is currently preparing an environmental assessment evaluating the potential impacts that may result from redevelopment of the above-referenced property. The commercial-industrial zoned property has historically been utilized as a sand and gravel mine, and is proposed to be subdivided in 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF, respectively. Two proposed lots on the southern portion of the subject property will contain two existing uses, Suffolk Cement and Southampton Masonry, and will be approximately 180,364 SF in size and 260,732 SF in size. New internal roads will be proposed for dedication and the subdivision will seek fire department coverage. The timing of such developments and proposed uses will occur incrementally over the next decade or more, based on market conditions and demand for commercial-industrial uses. As a result, it is anticipated that buildout of the site will occur over a number of years and possibly decades.

I am writing to obtain the following information:

- The location of the station(s) that would serve the site;
- A listing of the major pieces of firefighting equipment at each facility noted above;
- The number of firefighters at the facility;
- Any specialized firefighting capabilities the Department has;
- Any ambulance and/or EMT facilities or equipment relative to servicing the site; and
- Your opinion of the Department's ability to serve the project or any issues/concerns you have.

If you have any additional information or comments which would be pertinent, please include them. A preliminary site plan and location map are attached for your reference. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE & VOORHIS, LLC

Charles J. Voorhis, CEP, AICP
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August 29, 2019

National Grid
Revenue Cycle Management Department
175 East Old Country Road
Hicksville, NY 11801
Attn: Jessica Thomas

Re: Wainscott Commercial Center
30 Montauk Highway, Wainscott, NY
NPV # 17071

Dear Ms. Jessica Thomas:

On May 13, 2019, Nelson, Pope & Voorhis, LLC (NPV) requested information regarding existing gas facilities available and additional information for the above-referenced project located at 30 Montauk Highway, hamlet of Wainscott, Town of East Hampton. We are writing as a follow up regarding this previous request.

NPV is currently preparing an environmental assessment evaluating the potential impacts that may result from redevelopment of the above-referenced property. The commercial-industrial zoned property has historically been utilized as a sand and gravel mine, and is proposed to be subdivided in 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF, respectively. Two proposed lots on the southern portion of the subject property will contain two existing uses, Suffolk Cement and Southampton Masonry, and will be approximately 180,364 SF in size and 260,732 SF in size. All vacant lots will require energy supply as they are developed over time. However, the timing of such developments and proposed uses will occur incrementally over the next decade or more, based on market conditions and demand for commercial-industrial uses. As such, is anticipated that buildout of the site will occur over a number of years and possibly decades.

I am writing to obtain information in regard to the following:

- Whether natural gas can be supplied to the site;
- If natural gas can be supplied, the location(s) and sizes of the supply lines which would be used;
- While no estimate of consumption is available at present, please indicate any National Grid concerns as to whether an additional service connection would significantly impact the ability of National Grid to supply services to its other customers in the area; and
- If natural gas can be provided, please send a letter to my attention confirming that such service can be provided to serve the proposed lots.

If you have any additional information or comments which would be pertinent, please include them. A preliminary site plan and location map are attached for your reference. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE AND VOORHIS, LLC

Charles J. Voorhis, CEP, AICP
Managing Partner

NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING
www.nelsonpopevoorhis.com

August 29, 2019

East Hampton Town Police Department
131 Wainscott Northwest Road
P.O. Box 909
Wainscott, NY 11975
Attn: Chief Michael D. Sarlo

Re: Wainscott Commercial Center
30 Montauk Highway, Wainscott, NY
NPV # 17071

Dear Chief Sarlo,

On April 25, 2019, Nelson, Pope & Voorhis, LLC (NPV) requested information regarding the East Hampton Police Department's facilities and services for the above-referenced project located at 30 Montauk Highway, hamlet of Wainscott, Town of East Hampton. We are writing as a follow up regarding this previous request.

NPV is currently preparing an environmental assessment evaluating the potential impacts that may result from redevelopment of the above-referenced property. The commercial-industrial zoned property has historically been utilized as a sand and gravel mine, and is proposed to be subdivided in 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF, respectively. Two proposed lots on the southern portion of the subject property would contain two existing uses, Suffolk Cement and Southampton Masonry, and will be approximately 180,364 SF in size and 260,732 SF in size. New internal roads would be proposed for dedication and the subdivision will seek police department coverage. The timing of such developments and proposed uses will occur incrementally over the next decade or more, based on market conditions and demand for commercial-industrial uses. As a result, it is anticipated that buildout of the site will occur over a number of years and possibly decades.

I am writing to obtain information regarding East Hampton Police Department facilities and services which may be pertinent to the project. Specifically, I am requesting confirmation that the East Hampton Police Department serves this site and an indication as to whether you believe your department can accommodate the additional demands that this development may place on it, and any specific issues or concerns you may have.

If you have any additional information or comments which would be pertinent, please include them. A preliminary site plan and location map are attached for your reference. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE & VOORHIS, LLC

Charles J. Voorhis, CEP, AICP
Managing Partner

CORPORATE OFFICE
572 WALT WHITMAN ROAD, MELVILLE, NY 11747-2188
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NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING
www.nelsonpopevoorhis.com

August 29, 2019

Suffolk County Water Authority
PO Box 38
Oakdale, NY 11769
Attn: Kim Kennedy

Re: Wainscott Commercial Center
30 Montauk Highway, Wainscott, NY
NPV # 17071

Dear Kim:

On April 25, 2019, Nelson, Pope & Voorhis, LLC (NP&V) requested water supply information for the above-referenced project located at 30 Montauk Highway, hamlet of Wainscott, Town of East Hampton. We are writing as a follow up regarding this previous request.

NP&V is currently preparing an environmental assessment evaluating the potential impacts that may result from redevelopment of the above-referenced property. The commercial-industrial zoned property has historically been utilized as a sand and gravel mine, and is proposed to be subdivided in 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF, respectively. Two proposed lots on the southern portion of the subject property will contain two existing uses, Suffolk Cement and Southampton Masonry, and will be approximately 180,364 SF in size and 260,732 SF in size. All vacant lots will require water supply as they are developed over time. However, the timing of such developments and proposed uses will occur incrementally over the next decade or more, based on market conditions and demand for commercial-industrial uses. As a result, it is anticipated that buildout of the site will occur over a number of years and possibly decades. Therefore, peak water flow on a yearly basis cannot be estimated at this time; however, at full buildout, we expect domestic water demand to be 16,016± gpd based on the SCDHS design flow factor of 0.04 gpd per square foot for general industrial uses (this includes up to 15 percent related office space). In addition, there will be no fertilizer or irrigation dependent vegetation on lots that are part of the Wainscott Commercial Center. All landscaping will use xeric-oriented flora. Finally, it is proposed that I/A OWTS will be installed per Article 19 of the Suffolk County Sanitary Code, in conformance with the Town Code's Low Nitrogen Sanitary System requirements.

I would like to request the following information (which may be contained in the District's Annual Water Report):

- The wellfield and aquifer(s) from which the wells serving the site pump;
- Information on the nature and extent of any current water supply problems in the area; and
- Please indicate water availability and/or any issues or concerns the SCWA may have regarding providing water supply to this project.

If you have any additional information or comments which would be pertinent, please include them. A preliminary site plan and location map are attached for your reference. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE & VOORHIS, LLC

Charles J. Voorhis, CEP, AICP
Managing Partner

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www.nelsonpopevoorhis.com

April 25, 2019

PSEG Long Island
175 East Old Country Road
Hicksville, NY 11801
Attn: Lara Pomi-Urbat

Re: Request for Resource Availability
Wainscott Commercial Center
30 Montauk Highway
Wainscott, NY
NPV #17071

Dear Ms. Pomi-Urbat,

Nelson, Pope & Voorhis, LLC is an environmental and planning consulting firm located in Melville. We are currently preparing an environmental assessment evaluating the potential impacts that may result from redevelopment of the above-referenced property. The commercial-industrial zoned property has historically been utilized as a sand and gravel mine, and is proposed to be subdivided in 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF, respectively. Two proposed lots on the southern portion of the subject property would contain two existing uses, Suffolk Cement and Southampton Masonry, and will be approximately 180,364 SF in size and 260,732 SF in size. The subdivision will include buffer areas to be located adjacent to existing residential areas west and east of the subject property, as well as infrastructure improvements consisting of roads and underground utilities including public water and natural gas lines. All vacant lots will require energy supply as they are developed over time. However, the timing of such developments and proposed uses will occur incrementally over time based on market conditions and demand for commercial-industrial uses. As a result, it is anticipated that buildout of the site will occur over a number of years and possibly decades.

I am writing to obtain information in regard to electric service capabilities in the area, in general, and to the site in particular. Specifically, I am requesting the following:

- The capacity of the existing electric lines serving the site or area;
- Written confirmation that PSEG Long Island will serve the site with electricity as each lot becomes developed; and
- Information pertaining to any planned electrical distribution improvement projects in the area as a result of capital improvements or other development projects/new demand.

If you have any additional information or comments which would be pertinent, please include them. A preliminary site plan and location map are attached for your reference. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE & VOORHIS, LLC

Charles J. Voorhis, CEP, AICP
Managing Partner

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NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING
www.nelsonpopevoorhis.com

April 25, 2019

Bridgehampton Volunteer Fire Department
64 School Street
P.O. Box 1280
Bridgehampton, NY 11932
Attn: Chief Charles Broadmeadow

Re: Wainscott Commercial Center
30 Montauk Highway
Wainscott, NY
NPV # 17071

Dear Chief Broadmeadow,

Nelson, Pope & Voorhis, LLC is an environmental and planning consulting firm located in Melville. We are currently preparing an environmental assessment evaluating the potential impacts that may result from redevelopment of the above-referenced property. The commercial-industrial zoned property has historically been utilized as a sand and gravel mine, and is proposed to be subdivided in 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF, respectively. Two proposed lots on the southern portion of the subject property would contain two existing uses, Suffolk Cement and Southampton Masonry, and will be approximately 180,364 SF in size and 260,732 SF in size. The subdivision will include buffer areas to be located adjacent to existing residential areas west and east of the subject property, as well as infrastructure improvements consisting of roads and underground utilities including public water and natural gas lines. The roads would be proposed for dedication and the subdivision will seek fire department coverage. The timing of such developments and proposed uses will occur incrementally over time based on market conditions and demand for commercial-industrial uses. As a result, it is anticipated that buildout of the site will occur over a number of years and possibly decades.

I am writing to obtain information in regard to Bridgehampton Volunteer Fire Department facilities, services, and capabilities which may be pertinent to the project. Specifically, I am requesting the following:

- The location of the station(s) that would serve the site;
- A listing of the major pieces of firefighting equipment at each facility noted above;
- The number of firefighters at the facility;
- Any specialized firefighting capabilities the Department has;
- Any ambulance and/or EMT facilities or equipment relative to servicing the site; and
- Your opinion of the Department's ability to serve the project or any issues/concerns you have.

If you have any additional information or comments which would be pertinent, please include them. A preliminary site plan and location map are attached for your reference. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE & VOORHIS, LLC

Charles J. Voorhis, CEP, AICP
Managing Partner

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April 25, 2019

East Hampton Town Police Department
131 Wainscott Northwest Road
P.O. Box 909
Wainscott, NY 11975
Attn: Chief Michael D. Sarlo

Re: Wainscott Commercial Center
30 Montauk Highway
Wainscott, NY
NPV # 17071

Dear Chief Sarlo,

Nelson, Pope & Voorhis, LLC is an environmental and planning consulting firm located in Melville. We are currently preparing an environmental assessment evaluating the potential impacts that may result from redevelopment of the above-referenced property. The commercial-industrial zoned property has historically been utilized as a sand and gravel mine, and is proposed to be subdivided in 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF, respectively. Two proposed lots on the southern portion of the subject property would contain two existing uses, Suffolk Cement and Southampton Masonry, and will be approximately 180,364 SF in size and 260,732 SF in size. The subdivision will include buffer areas to be located adjacent to existing residential areas west and east of the subject property, as well as infrastructure improvements consisting of roads and underground utilities including public water and natural gas lines. The roads would be proposed for dedication and the subdivision will seek police department coverage. The timing of such developments and proposed uses will occur incrementally over time based on market conditions and demand for commercial-industrial uses. As a result, it is anticipated that buildout of the site will occur over a number of years and possibly decades.

I am writing to obtain information regarding East Hampton Police Department facilities and services which may be pertinent to the project. Specifically, I am requesting confirmation that the East Hampton Police Department serves this site and an indication as to whether you believe your department can accommodate the additional demands that this development may place on it, and any specific issues or concerns you may have.

If you have any additional information or comments which would be pertinent, please include them. A preliminary site plan and location map are attached for your reference. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE & VOORHIS, LLC

Charles J. Voorhis, CEP, AICP
Managing Partner

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NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING
www.nelsonpopevoorhis.com

April 25, 2019

Suffolk County Water Authority
PO Box 38
Oakdale, NY 11769
Attn: Kim Kennedy

Re: Wainscott Commercial Center
30 Montauk Highway
Wainscott, NY
NPV # 17071

Dear Ms. Kennedy:

Nelson, Pope & Voorhis, LLC is an environmental and planning consulting firm located in Melville. We are currently preparing an environmental assessment evaluating the potential impacts that may result from redevelopment of the above-referenced property. The commercial-industrial zoned property has historically been utilized as a sand and gravel mine, and is proposed to be subdivided in 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF, respectively. Two proposed lots on the southern portion of the subject property would contain two existing uses, Suffolk Cement and Southampton Masonry, and will be approximately 180,364 SF in size and 260,732 SF in size. The subdivision will include buffer areas to be located adjacent to existing residential areas west and east of the subject property, as well as infrastructure improvements consisting of roads and underground utilities including public water and natural gas lines. All vacant lots will require water supply as they are developed over time. However, the timing of such developments and proposed uses will occur incrementally over time based on market conditions and demand for commercial-industrial uses. As a result, it is anticipated that buildout of the site will occur over a number of years and possibly decades. Therefore, peak water flow cannot be estimated at this time.

I would like to request the following information (which may be contained in the District's Annual Water Report):

- The wellfield and aquifer(s) from which the wells serving the site pump;
- Information on the nature and extent of any current water supply problems in the area; and
- While no estimate of consumption is available at present, please indicate any issues or concerns the SCWA may have regarding the project.

If you have any additional information or comments which would be pertinent, please include them. A preliminary site plan and location map are attached for your reference. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE & VOORHIS, LLC

Charles J. Voorhis, CEP, AICP
Managing Partner

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NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING
www.nelsonpopevoorhis.com

May 13, 2019

National Grid
Revenue Cycle Management Department
175 East Old Country Road
Hicksville, NY 11801
Attn: Donna Laura & Jessica Thomas

Re: Wainscott Commercial Center
30 Montauk Highway
Wainscott, NY
NPV # 17071

Dear Ms. Donna Laura & Ms. Jessica Thomas:

Nelson, Pope & Voorhis, LLC is an environmental and planning consulting firm located in Melville. We are currently preparing an environmental assessment evaluating the potential impacts that may result from redevelopment of the above-referenced property. The commercial-industrial zoned property has historically been utilized as a sand and gravel mine, and is proposed to be subdivided in 50 commercial/industrial lots ranging in size from 40,000 square-feet (SF) to 260,732 SF, respectively. Two proposed lots on the southern portion of the subject property would contain two existing uses, Suffolk Cement and Southampton Masonry, and will be approximately 180,364 SF in size and 260,732 SF in size. The subdivision will include buffer areas to be located adjacent to existing residential areas west and east of the subject property, as well as infrastructure improvements consisting of roads and underground utilities including public water and natural gas lines. All vacant lots will require energy supply as they are developed over time. However, the timing of such developments and proposed uses will occur incrementally over time based on market conditions and demand for commercial-industrial uses. As such, is anticipated that buildout of the site will occur over a number of years and possibly decades.

I am writing to obtain information in regard to the following:

- Whether there are existing gas facilities available at the site, or in its absence, whether natural gas can be supplied to the site;
- If natural gas can be supplied, the location(s) and sizes of the supply lines which would be used;
- While no estimate of consumption is available at present, please indicate any National Grid concerns as to whether an additional service connection would significantly impact the ability of National Grid to supply services to its other customers in the area; and
- If natural gas can be provided, please send a letter to my attention confirming that such service can be provided to serve the proposed lots.

If you have any additional information or comments which would be pertinent, please include them. A preliminary site plan and location map are attached for your reference. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE AND VOORHIS, LLC

Charles J. Voorhis, CEP, AICP
Managing Partner

CORPORATE OFFICE
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APPENDIX H

TRAFFIC IMPACT STUDY

Dunn Engineering Associates, P.C.

June 2020

TRAFFIC IMPACT STUDY FOR WAINSCOTT COMMERCIAL CENTER

WAINSCOTT, TOWN OF EAST HAMPTON

Prepared For:

WAINSCOTT COMMERCIAL CENTER

Prepared By:

DUNN ENGINEERING ASSOCIATES, P.C.

JUNE 2020

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INTRODUCTION

Purpose of Report

This Traffic Impact Study contains the results of a traffic engineering examination of the proposal to subdivide the Wainscott Commercial Center property north of Montauk Highway in the Hamlet of Wainscott as a 70.511 acre (3,071,459 SF) into 50 Commercial – Industrial (C1) zoned lots.

This report appraises the traffic aspects of the proposed redevelopment with particular emphasis on its impact on the surrounding street and highway network.

Location

The site is located north of Montauk Highway in the Hamlet of Wainscott, Town of East Hampton, Suffolk County, New York. The property is bordered on the south by Old Montauk Highway, on the west by Georgica Drive and Wainscott Northwest Road, on the east by Hedges Lane (a private road), and on the north side by the Long Island Railroad rights-of-way.

Figure 1, Area Map, indicates the location of the Town of East Hampton in the New York Metropolitan area. Figure 2, Location Map, shows the Hamlet of Wainscott within the Town of East Hampton, while Figure 3, Site Map, presents an aerial view of the boundaries of the proposed development and the adjacent roadway network. Figure 4, Key Map, shows the overall site and the adjacent roadway network.

The site is currently a reclaimed sand and gravel mine that is presently partially occupied by two uses: Suffolk Cement and Southampton Brick and Tile.

Map of the
COUNTY OF SUFFOLK
LONG ISLAND, NEW YORK

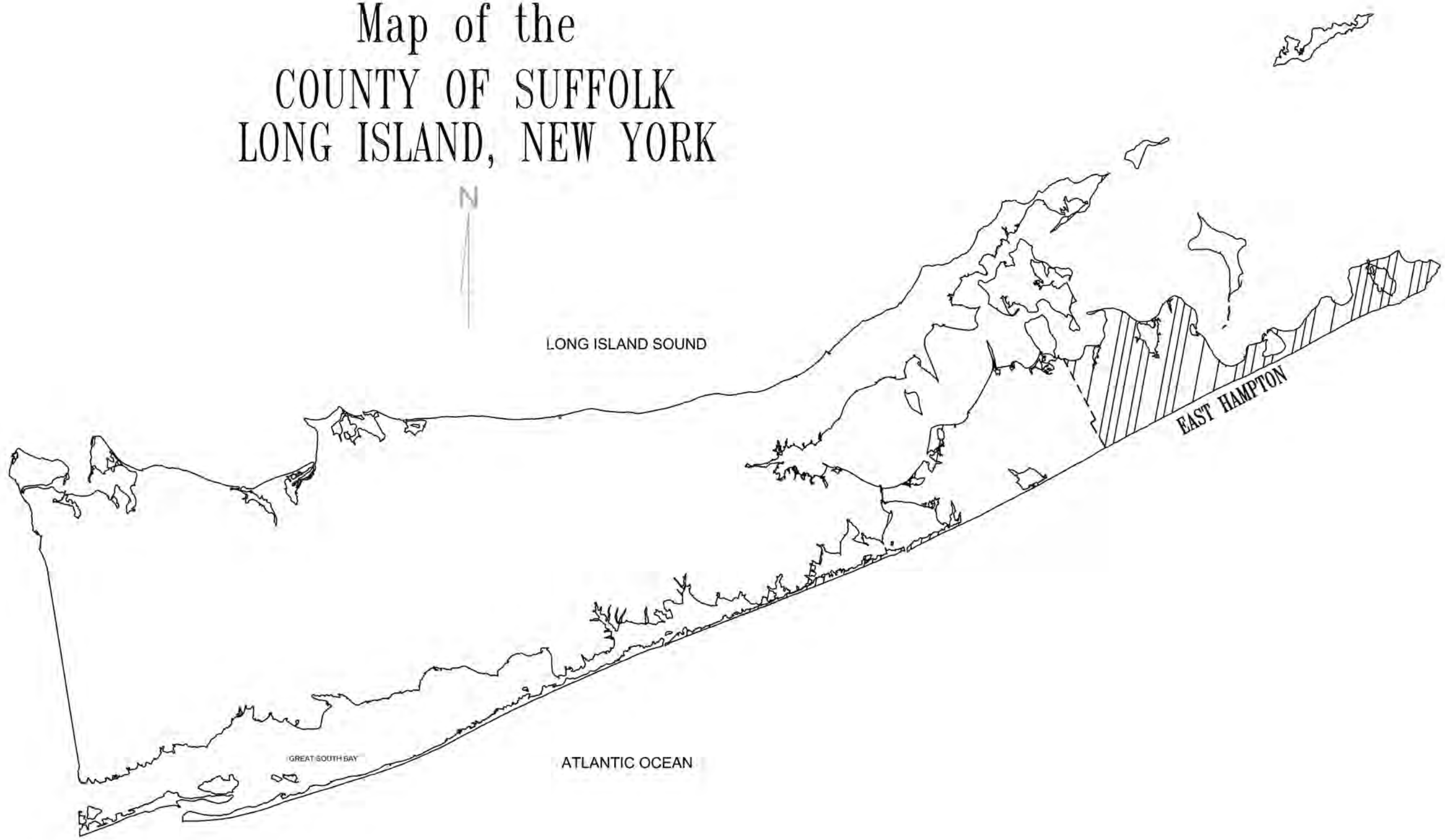

FIGURE 1		
AREA MAP		
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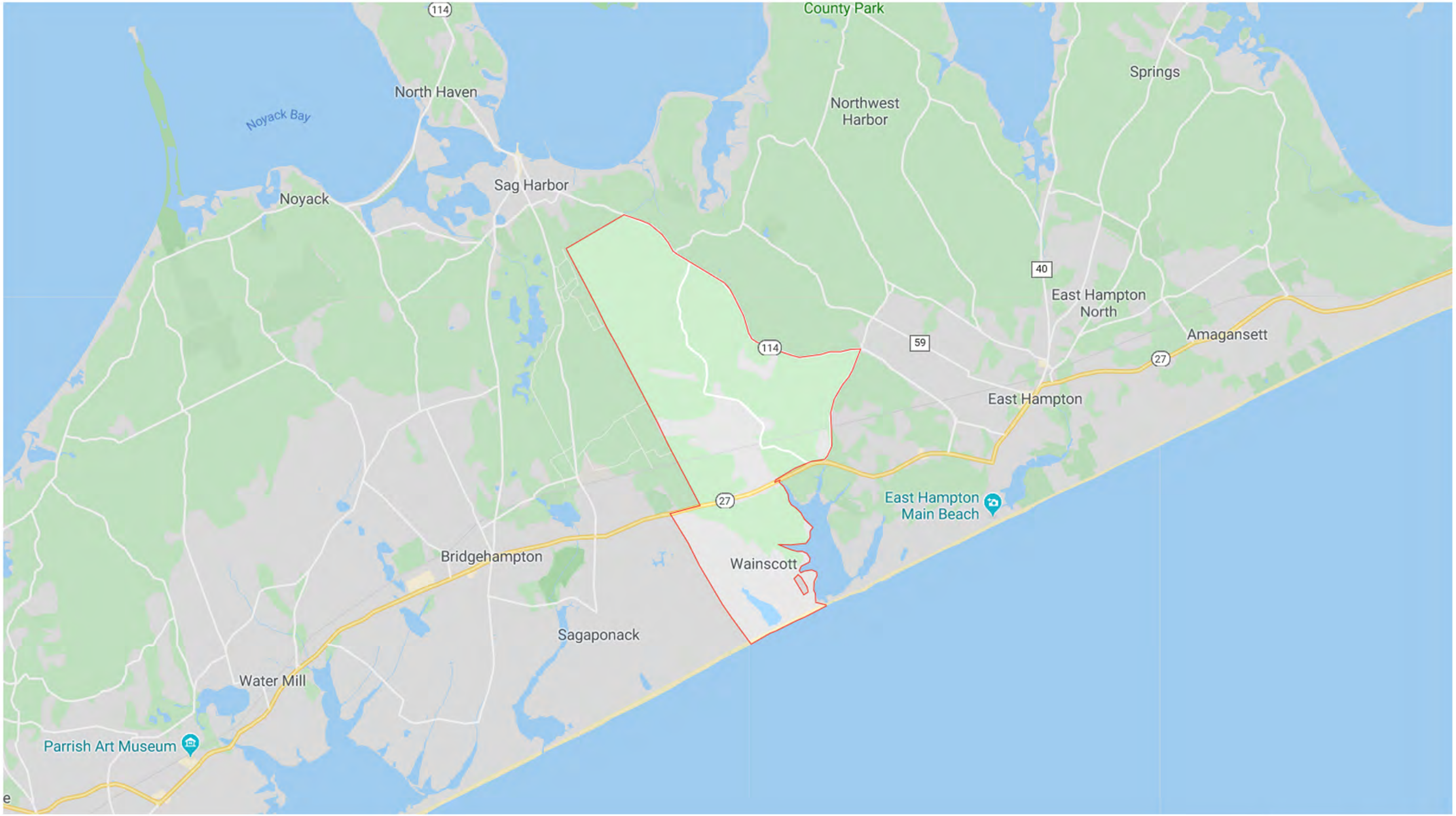

FIGURE 2

LOCATION MAP
WAINSCOTT HAMLET

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FIGURE 3

SITE MAP

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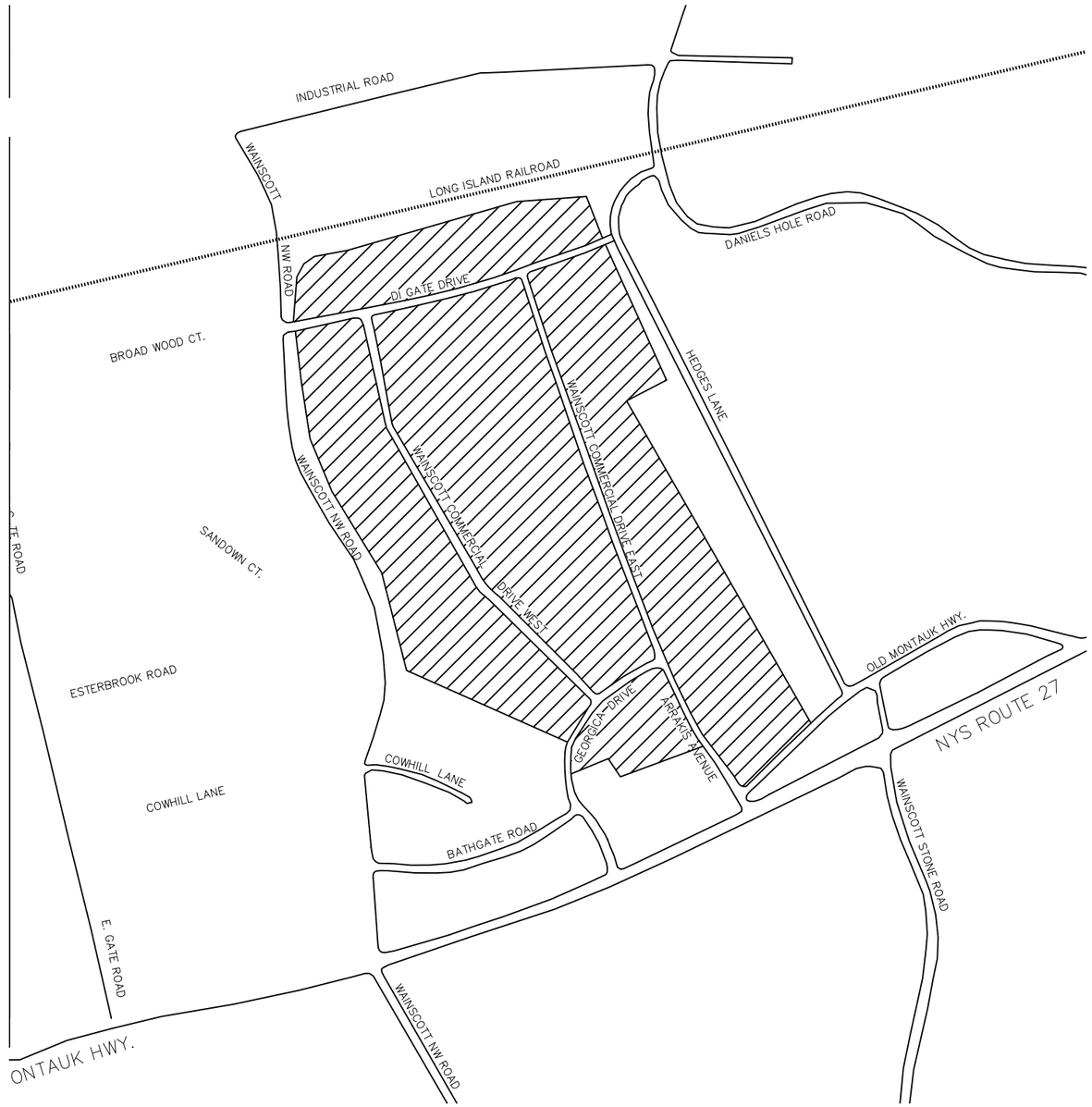

FIGURE 4
KEY MAP
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STUDY APPROACH

As part of the preparation of this Traffic Impact Study, the following tasks were undertaken:

1. Several personal, on-site field observations were made to observe the traffic movements under various conditions.

2. A physical inventory was made of the adjacent street network.

3. Traffic volume data was obtained from the New York State Department of Transportation.

4. Supplementary intersection turning movement traffic counts were collected as necessary to update the available volume counts.

5. 24-hour Automatic Traffic Recorder (ATR) counts were collected at key intersections to supplement the manual counts and NYSDOT traffic volumes.

6. An examination was made of the traffic flow on Montauk Highway (New York State Route 27), Old Montauk Highway, Wainscott Northwest Road, Daniel's Hole Road, Industrial Road, and Wainscott Stone Road.

7. An evaluation was made of the safety factors by reviewing recent accident records obtained from the New York State Department of Transportation.

8. The availability of police and fire protection services was examined.

9. A trip generation analysis was performed to determine the additional traffic attributable to the proposed redevelopment.

10. Directional distribution analyses were made to distribute the site-generated traffic onto the surrounding street network.

11. Trip assignment analyses were performed to examine the composite traffic volumes that would result due to the addition of the site-generated traffic to the existing traffic volumes, in order to determine the traffic impacts on the adjacent roadways.

12. Capacity analyses were performed at key intersections to examine their ability to accommodate the addition of the site-generated traffic.

13. A review of the proposed internal roadway network was made.

14. An examination of the access plan was made.

15. Roadway improvements were examined to determine their potential to safely handle the increase in traffic generated by the proposed redevelopment.

16. A review was made of the East Hampton Hamlet Report for Wainscott in regards to Transportation issues and recommendations.

17. Conclusions were made of the traffic impact of the development as a result of the data and the facts gathered in this study.

EXISTING ROADWAY NETWORK

Roadway Characteristics

As shown in Figure 3, Site Map, the site of the proposed development is located on the north side of Montauk Highway and Old Montauk Highway, east of Wainscott Northwest Road, west of Daniel's Hole Road and Hedges Lane, and south of the Long Island Railroad Montauk Line.

Montauk Highway (New York State Route 27) is an east/west State roadway which provides access to the site at its junction with Old Montauk Highway. Montauk Highway is a three-lane roadway with a two-way center left turn lane west of the junction with Old Montauk Highway. East of this junction the two-way center left turn lane is discontinued, and Montauk Highway is a two-lane road. Paved shoulders of varying width exist in the vicinity of the site, and no parking is permitted. A bike lane exists on both the south and north sides of Route 27 in the vicinity of the site.

Old Montauk Highway forms a loop on the north side of Montauk Highway. It meets Montauk Highway in the vicinity of the existing southerly site access driveway (which is proposed to remain in a reconfigured form), and again approximately 1500 feet to the east. This roadway is a wide, two-lane road with very limited traffic, and is used primarily as a parking area for traffic pulling off of Montauk Highway and as access to Hedges Lane.

Wainscott Northwest Road is a north/south Town road. Wainscott Northwest Road is a two-lane roadway from Montauk Highway north to Industrial Road, and crosses the Long Island Railroad tracks at an at-grade crossing equipped with gates and flashing beacons.

Wainscott Stone Road is a north/south Town road which does not abut or provide direct access to the site. It is a two-lane facility south of its intersection with Montauk Highway, east of the site.

Daniel's Hole Road is a north/south Town road. Daniel's Hole Road is a two-lane roadway from its intersection with Montauk Highway east of the site to Industrial Road. It crosses under the Long Island Railroad tracks through a very narrow underpass with only nine (9.0) feet of vertical clearance.

Hedges Lane is a north/south private roadway. No site access is provided from this roadway, which is a partially paved path of approximately 20 feet in width. It meets Old Montauk Highway east of the site and meets Daniel's Hole Road just south of the underpass with the Long Island Railroad.

Industrial Road is an east/west Town road which does not abut or provide direct access to the site. It is a two-lane road north of the Long Island Railroad tracks, and connects Wainscott Northwest Road with Daniel's Hole Road.

Bathgate Road is an east/west Town road which connects Wainscott Northwest Road to an existing access point in the southeast corner of the site. It is a two-lane road which provides access to the rear of the commercial developments located on Montauk Highway east of Wainscott Northwest Road.

Georgica Drive is a north/south Town road with one lane in each direction which connects Bathgate Road, in the vicinity of the existing site access, to Montauk Highway. Southbound to westbound right turns onto Bathgate Road are prohibited.

Major Intersections

The following intersections are located in the vicinity of the site and were investigated as part of this study:

1. Montauk Highway at Wainscott Northwest Road

2. Montauk Highway at Georgica Drive

3. Montauk Highway at Old Montauk Highway

4. Montauk Highway at Wainscott Stone Road

5. Wainscott Northwest Road at Industrial Road

6. Daniel's Hole Road at Industrial Road

The lane configuration at the signalized intersection approaches of Montauk Highway and Wainscott Northwest Road consist of the following:

1.	Northbound Wainscott Northwest Road:	A separate left turn lane and a combined thru/right turn lane.
2.	Southbound Wainscott Northwest Road:	A combined left turn/thru/right turn lane.
3.	Westbound Montauk Highway:	A separate left turn lane and a combined thru/right turn lane.
4.	Eastbound Montauk Highway:	A separate left turn lane and a combined thru/right turn lane.

The lane configuration at the unsignalized T-intersection approaches of Montauk Highway and Georgica Drive consists of the following:

1.	Southbound Georgica Drive:	A combined left turn/right turn lane.
2.	Westbound Montauk Highway:	A combined thru/right turn lane.
3.	Eastbound Montauk Highway:	A two-way left-turn lane and a thru lane.

The lane configuration at the unsignalized T-intersection approaches of Montauk Highway and Old Montauk Highway consist of the following:

1.	Southbound Old Montauk Highway:	A combined left turn/right turn lane. No pavement markings or signing is present to indicate lane

assignments.

2. Westbound Montauk Highway: A combined thru/right turn lane.

3. Eastbound Montauk Highway: A separate left turn lane and a thru lane.

The lane configuration at the unsignalized approaches of Montauk Highway and Wainscott Stone Road consist of the following:

1. Northbound Wainscott Stone Road: A combined left turn/thru/right turn lane.

2. Southbound Wainscott Stone Road: A combined left turn/thru/right turn lane.

3. Westbound Montauk Highway: A combined left turn/thru/right turn lane.

4. Eastbound Montauk Highway: A combined left turn/thru/right turn lane.

The lane configuration at the unsignalized approaches of Industrial Road and Wainscott Northwest Road consist of the following:

1. Northbound Wainscott Northwest Road: A combined left turn/thru/right

2. Westbound Industrial Road: A combined left turn/thru turn lane.

3. Eastbound Industrial Road: A combined thru/right turn lane.

The lane configuration at the unsignalized T-intersection approaches of Industrial Road and Daniel's Hole Road consist of the following:

4. Northbound Daniel's Hole Road: A combined left turn/thru lane.

5. Southbound Daniel's Hole Road: A combined thru/right turn lane.

6. Eastbound Industrial Road: A combined left turn/right turn lane.

Grades and Sight Distances

The grades on Montauk Highway, Old Montauk Highway, Wainscott Northwest Road, Wainscott Stone Road, Daniel's Hole Road, Bathgate Road, Georgica Drive, and Industrial Road and their intersections in the vicinity of the site are essentially flat. The only restriction to sight distance in the study area exists on Daniel's Hole Road, where the narrow and low railroad overpass limits visibility to the north and a horizontal curve on Daniel's Hole Road limits visibility to the south.

EXISTING TRAFFIC FLOW CONDITIONS

Traffic Volumes

Traffic volume data in the form of intersection turning movement counts and 24-hour ATR counts were collected in August 2017. As the traffic volumes on the east end of Long Island are seasonal in nature, these counts represent the worst-case summer season. These summer volumes are referred to as the existing traffic volumes throughout this report.

According to the NYSDOT, the average daily traffic volume on NYS Route 27, Montauk Highway in the vicinity of the site is approximately 19,000; however, during the summer, the average daily traffic volume is approximately 25,000 vehicles per day.

Intersection turning movement traffic volume counts were collected at the following locations:

- Route 27 at Wainscott Northwest Road
- Route 27 at Georgica Drive
- Route 27 at Old Montauk Highway
- Route 27 at Wainscott Stone Road
- Wainscott Northwest Road at Industrial Road
- Daniel's Hole Road at Industrial Road

Automated traffic recorder (ATR) data was collected using video technology for traffic in both directions on Montauk Highway at the above noted intersections in the vicinity of the site. Intersection turning movement counts were taken for the weekday morning and afternoon peak hours as well as the Saturday mid-day hours at the major intersections described previously.

An examination of the traffic volume information collected reveals that the peak weekday morning traffic volumes occur between 8:00 and 9:00 AM. The peak weekday afternoon traffic volumes occur between 4:00 and 5:00 PM. The peak weekend traffic volumes occur on Saturday from 12:00 noon to 1:00 PM.

The available traffic volume information is contained in the section of the Appendix entitled "Traffic Volume Data".

Accident History

Information was obtained from NYSDOT regarding all accidents that have occurred on Route 27 in the immediate vicinity of the site for the latest three years for which records are available. This data consists of computer-generated verbal description summaries of each reportable and non-reportable accident case that occurred on Route 27 between East Gate Road on the west and Wainscott Stone Road on the east from April 1, 2016 through March 31, 2019.

After reviewing the accident data, an accident statistic summary table was prepared. Table 1, Accident Summary – NYS Route 27, presents a summary of the accidents on Route 27 in the vicinity of the proposed development by year and location.

Location	Number of Accidents			3-Year Total
	4/1/16 to 3/31/17	4/1/17 to 3/31/18	4/1/18 to 3/31/19	
NYS Route 27 between East Gate Road and the signalized intersection at Wainscott Northwest Road	4	4	5	13
NYS Route 27 at the signalized intersection at Wainscott Northwest Road	2	4	6	12
NYS Route 27 between Wainscott Northwest Road and Georgica Drive	4	1	1	6
NYS Route 27 at Georgica Drive	2	1	1	4
NYS Route 27 between Georgica Drive and Old Montauk Highway	2	0	3	5
NYS Route 27 at Old Montauk Highway	0	0	1	1
NYS Route 27 between Old Montauk Highway and Wainscott Stone Road	1	0	3	4
NYS Route 27 at Wainscott Stone Road	3	0	4	7

Table 1
Accident Summary
NYS Route 27

As can be seen in Table 1, the available data indicates that the majority (48% of the total accidents in the vicinity of the site) occurred on Route 27 west of the site from April 1, 2016 through March 31, 2019, an average of approximately 8 accidents per year. The accident verbal descriptions obtained from NYSDOT on which Table 1 is based can be found in the Appendix in the section entitled, "Accident Records".

It should be noted that the accident history information provided by NYSDOT, commonly referred to as Verbal Descriptions, is limited in the information it provides. More detailed information, in the form of MV-104 forms, is unavailable to private parties due to privacy concerns. The limited information contained in the verbal descriptions makes it difficult to account for common inaccuracies in recording such as accident location. Nonetheless, using the available accident history data, any accident trends or problems on NYS Route 27 in the vicinity of the proposed site were identified.

A closer examination of the accident verbal descriptions was performed for the accidents recorded as occurring on NYS Route 27 in the vicinity of the site to determine if there were any apparent accident patterns or trends worthy of note. Based on this review, it was found that the predominant types of accidents occurring along this roadway section are rear end accidents due to driver inattention. However, due to the slow nature of traffic with lower speeds, injuries were rare. No other apparent patterns in pavement conditions, lighting conditions, etc. were identified. However, it is typical of a roadway section in advance of a signalized intersection and a hamlet downtown area in general to experience a number of accidents due to the high volumes of traffic accommodated downstream of the intersection. The types of accidents that occurred in advance of the signalized intersection at Wainscott Northwest Road (west of the site) which were identified were the types of accidents that would happen at any typical signalized intersection.

With the proposed well-designed access plan and internal roadway network, it is expected that the proposed commercial/industrial use will not lead to an undue increase of the rate of accident occurrence on NYS Route 27 in the vicinity of the site.

Based on the number of accidents (52) that occurred over a three year period, the accident records obtained from the NYSDOT were broken down to determine the type of accidents, the cause of the accident, classification of property damage, personal injury, or death, as well as the contribution of weather conditions and roadway conditions. Tables were prepared with these items for each accident report on a daily basis and for each month of the year. A summary of this information is contained in Table 2 for ease of reference.

The majority of the accidents were rear end collisions during slowed or stopped traffic and the primary causes of the accident were driver inattention, following too closely, and improper passing. The majority of the accidents involved property damage to the vehicles (28 out of 52 accidents), a few minor personal

injuries (22 out of 52 accidents) and no fatalities.

These types of accidents are indicative of heavy traffic flow conditions involving slowed or stopped traffic. The majority of the accidents occurred during the peak summer time frame when day trippers, tourists and second home residents enjoy the outdoor activities of the East End of Long Island. No specific locations were noted that would benefit by a specific roadway improvement.

However, the Town of East Hampton could request the NYSDOT to reduce the speed limit from 40 mph to 30 mph along the section of Route 27 from Wainscott Northwest Road easterly to Wainscott Stone Road as a mitigation measure to reduce the number and types of accidents. As shown in Table 2, the predominant type of accidents are rear end collisions with primarily property damage to the vehicles. The Town's proposed request for a reduction in the speed limit could also reduce the number and severity of the rear end collisions.

DATE	ACCIDENT CATEGORY								ACCIDENT CAUSE								SEVERITY				TRAFFIC	
	REAR END	W/ FIXED OBJECT	LEFT TURN	BICYCLIST/PEDESTRIANS	OVERTAKING/PASSING	RIGHT ANGLE	HEAD ON	DEER	DRIVER INATTENTION	IMPROPER TURN	FAILURE TO YIELD R.O.W.	FOLLOWING TOO CLOSELY	BICYCLIST ERROR	IMPROPER LANE USAGE	ALCOHOL	BACKING UP	PROPERTY DAMAGE	NON-REPORTABLE	INJURY	DEATH	SLOWED	STOPPED
Apr 2016	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
May 2016	3	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	3	0	0	2
Jun 2016	2	1	0	0	0	0	0	0	1	0	0	2	0	0	0	0	2	1	2	0	0	1
Jul 2016	3	0	1	0	0	0	0	0	2	0	1	0	0	0	0	0	4	0	2	0	2	0
Aug 2016	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	2
Sep 2016	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	1
Oct 2016	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Nov 2016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 2016	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0
Jan 2017	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	4	0	1	0	2	2
Feb 2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	3	0	1	0
Mar 2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	1	2
TOTAL 1ST YEAR	12	1	4	0	0	2	0	0	5	1	2	8	0	0	0	1	27	5	14	0	7	12
Apr 2017	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
May 2017	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0
Jun 2017	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	2	2
July 2017	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0
Aug 2017	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
Sep 2017	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1
Oct 2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov 2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan 2018	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	0	0	0	1	1
Feb 2018	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	1
Mar 2018	1	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	1	0
TOTAL 2ND YEAR	7	1	0	1	0	1	0	2	4	0	0	4	0	1	0	0	12	0	3	0	5	5
Apr 2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May 2018	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	1	1
Jun 2018	3	2	2	0	0	0	0	0	3	0	0	1	0	0	0	0	4	0	1	0	0	2
July 2018	5	0	2	1	0	1	0	0	3	0	1	3	0	2	0	0	7	0	5	0	7	6
Aug 2018	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	1	0	0	0	1	1
Sep 2018	3	0	2	0	0	0	0	0	2	0	0	2	0	0	0	0	2	0	1	0	1	0
Oct 2018	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	1	0	0	2
Nov 2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan 2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb 2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar 2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL 3RD YEAR	13	2	7	1	1	1	0	0	9	1	2	8	0	3	0	0	17	0	9	0	10	12
TOTAL 3 YRS	32	4	11	2	1	4	0	3	18	2	4	20	0	4	0	1	56	5	26	0	22	29

Table 2
Summary of Accident Data by Category, Cause & Severity

Table 2 breaks down the accident data by category, cause and severity (property damage, non-reportable injury, death). A review of Table 2 reveals that the most common type of accident in the study area is the rear end crash, which comprised more than 64% (32/50) of all reported accidents. Rear end accidents are generally associated with stop-and-go traffic, and are often common in areas like this which experience recurring congestion.

Our observations since the installation of the traffic signal on Montauk Highway at Wainscott Northwest Road reveal the signal interrupts the continuous stream of traffic on Montauk Highway, creating more gaps at adjacent unsignalized intersections and driveways which in turn reduces accidents involving turning vehicles.

The roadway and intersection modifications recommended in this report as part of the proposed redevelopment project are designed to accommodate the additional site traffic safely and efficiently. As a result, the rate of accidents in the immediate vicinity of the site is not expected to increase.

EXISTING EMERGENCY SERVICES

The availability of police protection and fire protection services in the vicinity of the proposed redevelopment is excellent.

Numerous Town of East Hampton Police patrols pass the site because of its location on Montauk Highway, the major east-west roadway through the town. The East Hampton Town Police Department is located just to the northwest of the site on the south side of Industrial Road and west of Wainscott Northwest Road.

The site falls within the Bridgehampton Fire District. The Bridgehampton Fire Department is located on School Street in Bridgehampton, which is approximately four miles west of the site along Montauk Highway. The Bridgehampton Fire Department is a well-equipped and well-staffed volunteer department, equipped with several tanker and pump trucks, as well as ambulances and a heavy rescue truck..

Due to the excellent patrol coverage of the Town of East Hampton Police and the proximity of the Bridgehampton Fire Department and the East Hampton Town Police Department, it should be recognized that excellent emergency services are available to service the site.

SITE TRIP GENERATION ANALYSIS

Land Uses

The intended land use for the proposed development is commercial industrial. The 9th edition as well as the 10th edition of *Trip Generation*, a report published by the Institute of Transportation Engineers (ITE), lists several land uses which are related to this intended use. The two of note are General Light Industrial (ITE Land Use 110) and Industrial Park (ITE Land Use 130). The characteristics of each land use are described below.

General Light Industrial (ITE Land Use 110):

- Employ fewer than 500 persons;
- Emphasis on activities other than manufacturing;
- Generally free-standing facilities;
- Generally devoted to a single use;
- Typically have minimal office space; and
- Typically include printing, material testing and assembly of data processing equipment.

Industrial Park (ITE Land Use 130):

- Contain a number of industrial or related facilities;
- Contain a mix of manufacturing, service, and warehouse facilities; and
- Include highly diversified uses and facilities;
- Contain approximately 13 percent truck trips as an average.

Based on the characteristics of each land use, the Industrial Park use was selected as the best representative of the intended use of the property.

The expected trip generation for the weekday morning, weekday afternoon, and Saturday midday peak hours was calculated based on the proposed building size for each lot in the proposed development, as shown in Table 3 below. Note that Lot 22 is proposed to contain Southampton Brick and Tile and Lot 21

is proposed to contain Suffolk Cement. Since these two uses already exist on site, and were in operation at the time the traffic volume counts were taken, no trip generation was performed for these two lots since they are included in the existing traffic data. The traffic that is anticipated to be generated by the uses on these two lots is included in all stages of the analysis (Existing, No Build, and Build), since these uses are on site and are expected to remain regardless of the development of the remainder of the site. It should be noted that there were other existing uses operating on the site at the time the traffic data was collected. These uses included Emergency Mechanical Services (Diesel Truck Repair) and Landscaping Details (Outdoor Storage). In order to present the most conservative trip generation forecast, no credit was taken for these existing uses which have not been allocated a specific lot in the proposed development.

The 9th Edition of the ITE "Trip Generation Manual" dated March 2012 under Land Use Code 130, Industrial Park, and based on the adjacent street traffic and the use of the size of the building in terms of 1000 S.F. of Gross Floor Area, indicates the average rates and % of entering and exiting traffic for estimate the site generated traffic. These rates are indicated below in Table 3. Table 3 also indicates the average rates and % of entering and exiting traffic based on the data in the Tenth Edition of the ITE "Trip Generation Manual.

9th Edition of ITE "Trip Generation Manual" Land Use 130, Industrial Park				10th Edition of ITE "Trip Generation Manual" Land Use 130, Industrial Park			
Peak Hour Period	Average Rate	DIRECTIONAL DISTRIBUTION		Peak Hour Period	Average Rate	DIRECTIONAL DISTRIBUTION	
		% Enter	% Exit			% Enter	% Exit
AM	.82	82	18	AM	.40	81	19
PM	.85	21	79	PM	.40	21	79
SAT Afternoon	.35	32	68	SAT Afternoon	.44	32	68

Table 3, Comparison of Rates in the 9th & 10th Editions of the Trip Generation Manual

Normally, the latest edition would be used to determine the volume of site generated traffic expected for a land use; however, examination of Table 3 indicates the rates in the 10th edition are substantially less than those in the 9th edition without any explanation of reasons for this change.

Table 4 lists the site generated traffic for each lot as well as the total industrial park based on the rates and directional distribution % of entering and exiting traffic using the data in the 9th edition of the ITE "Trip Generation Manual", while Table 4A presents the similar information based on the rates and % of directional distribution of entering and exiting traffic utilizing the data in the 10th edition of the ITE "Trip Generation Manual".

Figure 5 shows the proposed locations of the 50 lots on the site as well as the proposed internal roadway network.

FIGURE 5

PROPOSED LOTS
AND INTERNAL ROADWAY

DUNN ENGINEERING ASSOCIATES, P.C.

SCALE	DATE	
NOT TO SCALE	NOVEMBER 2019	

			TRIP GENERATION (VEHICLES/HOUR)					
LOT NUMBER	LOT SIZE (SQ. FT)	BUILDING SIZE (SQ. FT.)	WEEKDAY A.M. PEAK HOUR		WEEKDAY P.M. PEAK HOUR		SATURDAY PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT	ENTER	EXIT
1	54,731	10,262	7	1	2	7	1	3
2	40,000	7,500	5	1	1	5	1	2
3	40,000	7,500	5	1	1	5	1	2
4	40,000	7,500	5	1	1	5	1	2
5	40,000	7,500	5	1	1	5	1	2
6	40,000	7,500	5	1	1	5	1	2
7	40,000	7,500	5	1	1	5	1	2
8	40,000	7,500	5	1	1	5	1	2
9	40,000	7,500	5	1	1	5	1	2
10	40,000	7,500	5	1	1	5	1	2
11	40,341	7,564	5	1	1	5	1	2
12	40,000	7,500	5	1	1	5	1	2
13	40,000	7,500	5	1	1	5	1	2
14	40,000	7,500	5	1	1	5	1	2
15	40,000	7,500	5	1	1	5	1	2
16	40,000	7,500	5	1	1	5	1	2
17	40,000	7,500	5	1	1	5	1	2
18	40,000	7,500	5	1	1	5	1	2
19	40,000	7,500	5	1	1	5	1	2
20	47,384	8,885	6	1	2	6	1	2

21	180,364	--	--	--	--	--	--	--
22	260,732	--	--	--	--	--	--	--
23	51,884	9,728	7	1	2	6	1	2
24	40,000	7,500	5	1	1	5	1	2
25	40,000	7,500	5	1	1	5	1	2
26	40,000	7,500	5	1	1	5	1	2
27	40,000	7,500	5	1	1	5	1	2
28	40,000	7,500	5	1	1	5	1	2
29	40,000	7,500	5	1	1	5	1	2
30	40,000	7,500	5	1	1	5	1	2
31	40,000	7,500	5	1	1	5	1	2
32	40,000	7,500	5	1	1	5	1	2
33	40,000	7,500	5	1	1	5	1	2
34	40,000	7,500	5	1	1	5	1	2
35	46,890	8,792	6	1	2	5	1	2
36	45,618	8,553	6	1	1	5	1	2
37	40,000	7,500	5	1	1	5	1	2
38	40,000	7,500	5		1	5	1	2
39	40,000	7,500	5	1	1	5	1	2
40	40,000	7,500	5	1	1	5	1	2
41	40,000	7,500	5	1	1	5	1	2
42	40,000	7,500	5	1	1	5	1	2
43	40,000	7,500	5	1	1	5	1	2
44	40,000	7,500	5	1	1	5	1	2

45	40,000	7,500	5	1	1	5	1	2
46	40,000	7,500	5	1	1	5	1	2
47	40,000	7,500	5	1	1	5	1	2
48	40,000	7,500	5	1	1	5	1	2
49	40,000	7,500	5	1	1	5	1	2
50	80,062	15,012	10	2	3	10	2	3
Total	1,753,275	376,296	252	48	54	249	49	98

Table 4
Site-Generated Traffic Using Data from Ninth Edition of ITE "Trip Generation Manual"

			TRIP GENERATION (VEHICLES/HOUR)					
LOT NUMBER	LOT SIZE (SQ. FT)	BUILDING SIZE (SQ. FT.)	WEEKDAY A.M. PEAK HOUR		WEEKDAY P.M. PEAK HOUR		SATURDAY PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT	ENTER	EXIT
1	54,731	10,262	3	1	1	3	1	3
2	40,000	7,500	2	1	1	2	1	2
3	40,000	7,500	2	1	1	2	1	2
4	40,000	7,500	2	1	1	2	1	2
5	40,000	7,500	2	1	1	2	1	2
6	40,000	7,500	2	1	1	2	1	2
7	40,000	7,500	2	1	1	2	1	2
8	40,000	7,500	2	1	1	2	1	2
9	40,000	7,500	2	1	1	2	1	2
10	40,000	7,500	2	1	1	2	1	2
11	40,341	7,564	2	1	1	2	1	2

12	40,000	7,500	2	1	1	2	1	2
13	40,000	7,500	2	1	1	2	1	2
14	40,000	7,500	2	1	1	2	1	2
15	40,000	7,500	2	1	1	2	1	2
16	40,000	7,500	2	1	1	2	1	2
17	40,000	7,500	2	1	1	2	1	2
18	40,000	7,500	2	1	1	2	1	2
19	40,000	7,500	2	1	1	2	1	2
20	47,384	8,885	3	1	1	3	1	3
21	180,364	--	--	--	--	--	--	--
22	260,732	--	--	--	--	--	--	--
23	51,884	9,728	3	1	1	3	1	3
24	40,000	7,500	2	1	1	2	1	2
25	40,000	7,500	2	1	1	2	1	2
26	40,000	7,500	2	1	1	2	1	2
27	40,000	7,500	2	1	1	2	1	2
28	40,000	7,500	2	1	1	2	1	2
29	40,000	7,500	2	1	1	2	1	2
30	40,000	7,500	2	1	1	2	1	2
31	40,000	7,500	2	1	1	2	1	2
32	40,000	7,500	2	1	1	2	1	2
33	40,000	7,500	2	1	1	2	1	2
34	40,000	7,500	2	1	1	2	1	2
35	46,890	8,792	3	1	1	3	1	3

36	45,618	8,553	3	1	1	3	1	3
37	40,000	7,500	2	1	1	2	1	2
38	40,000	7,500	2	1	1	2	1	2
39	40,000	7,500	2	1	1	2	1	2
40	40,000	7,500	2	1	1	2	1	2
41	40,000	7,500	2	1	1	2	1	2
42	40,000	7,500	2	1	1	2	1	2
43	40,000	7,500	2	1	1	2	1	2
44	40,000	7,500	2	1	1	2	1	2
45	40,000	7,500	2	1	1	2	1	2
46	40,000	7,500	2	1	1	2	1	2
47	40,000	7,500	2	1	1	2	1	2
48	40,000	7,500	2	1	1	2	1	2
49	40,000	7.500	2	1	1	2	1	2
50	80,062	15,012	5	1	1	5	2	5
Total	1,753,275	376,296	100	48	47	104	49	104

Table 4A
Site-Generated Traffic Using Data from Tenth Edition of ITE "Trip Generation Manual"

Table 5 compares the total site generated traffic for the entire site based on data contained in both the 9th and 10th editions of the ITE "Trip Generation Manual".

USE OF ITE EDITION OF SITE TRIP GENERATION	AM			PM			SATURDAY		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
9TH EDITION	252	48	300	54	249	303	49	98	147
10TH EDITION	100	48	148	47	104	151	40	104	144
COMPARISON 9TH > 10TH	152	0	152	7	145	152	9	-6	3

Table 5
Comparison of Total Site Generated Traffic

As can be seen in Table 5, use of data in the Ninth Edition results in higher site generated traffic volumes. During the AM, PM and Saturday peak hours the Ninth Edition volumes are higher than the 10th Edition volumes by 152 in the AM (+ 152 more vehicles enter while the number of vehicles exiting remains the same at 48), 152 in the PM (+7 enter, +145 exit) and 3 on Saturday (+9 enter & -6 exit), respectively.

Based on this analysis, it was determined that use of the overall higher site generated traffic volumes from the 9th Edition data base would result in 1) the worst case traffic engineering examination in the preparation of the detailed intersection capacity analyses and 2) the identification and recommendation of more extensive mitigating roadway improvements.

Thus, use of the data compiled in Table 4 rather than Table 4A was used in the directional distribution analysis, the traffic assignment analysis and the capacity analyses.

Truck Traffic

Special consideration of the existing Suffolk Cement operation is appropriate considering the nature of the heavy truck traffic generated by this land use. Suffolk Cement operates five to ten large cement trucks, and typically generates approximately 50 truck trips on a typical day during their busy season (April through July). A maximum of 70 truck trips can be generated over a ten hour period (7:00 AM to 5:00 PM) on extremely busy days.

The majority of this truck traffic uses Montauk Highway, which already handles most of the commercial traffic serving the East End of Long Island. However, approximately 20% of the cement truck traffic

uses Wainscott Northwest Road to reach areas north of the site. In order to reach Wainscott Northwest Road, truck traffic from the site must currently use Bathgate Road or Montauk Highway. Therefore, all northbound truck traffic presently travels Wainscott Northwest Road over nearly the entire length from Montauk Highway to Industrial Road, passing the residential neighborhoods which line the west side of the site. The proposed site access plan provides access to Wainscott Northwest Road at the north end of the site, which will reduce the amount of truck traffic, including heavy trucks, along the residential area of Wainscott Northwest Road.

Other Developments

The Town of East Hampton Planning and Building Departments were contacted to determine if there were any other developments in the vicinity of the site which may affect traffic volumes in the study area. They advised that no other developments are planned in the vicinity of the site.

Site Build-Out

Note that these site-generated traffic volumes represent a conservative scenario with the entire site being fully-developed and occupied. Due to the nature of the proposed land use, generally taking a number of years to reach full build-out, it is likely that this level of development would not occur for many years, if ever. Furthermore, it assumes that the entire site is developed with uses that have a level of activity similar to the Commercial/Industrial Center land use. However, many possible uses, such as self-storage and other uses not involving direct sales or manufacturing, will likely result in much lower trip generation. Overall, the total trip generation used is likely much higher than would ever occur on the site.

DIRECTIONAL DISTRIBUTION ANALYSIS

In order to determine the origins and destinations of vehicles entering and leaving the proposed development, a directional distribution analysis was performed. Our first analysis was based on traffic data collected, which indicated that approximately 50% of the traffic passing the site on Montauk Highway originated from the west in the morning and that 50% originated from the east. Afternoon data showed similar percentages of trips in the opposite directions, as commuters return to their origins in the evening. This distribution illustrates a balanced distribution of activity to the east and west of the site; however, it did not take into consideration destinations to the north of the site. As a result, a second directional distribution analysis was performed that was based on detailed data compiled by Suffolk Cement that currently operates out of the proposed site. Suffolk Cement had records of the locations and work sites that their cement trucks traveled to make their deliveries. These destinations would also be the same for anticipated trips by suppliers of building materials that are expected to locate on lots in the Commercial Center. Thus, it appears reasonable to anticipate their deliveries to be similar or the same as the Suffolk Cement trucks. The Suffolk Cement data indicates 40% of their trips are to the west on Route 27, 40% to the east on Route 27, and 20% to the north. This data is contained in the section of the Appendix entitled "Directional Distribution Data".

Based on the availability of vacant land, new homes and major renovations to existing homes on the South Fork of eastern Long Island, it is expected that similar building will continue to the east, west and north of the site. Given the proximity of the Village of Sag Harbor to the north of the proposed redevelopment, it was assumed that 20% of trips to and from the site would originate and return to the north. Based on knowledge of the traffic flow patterns and roadway network in the region, 20% of site traffic is expected to arrive from and return to north of the site. The most appropriate north-south roadway in the immediate vicinity of the site is Daniel's Hole Road, which connects to Wainscott Northwest Road and ultimately to East Hampton-Sag Harbor Turnpike, a primary access roadway to the Village of Sag Harbor. Again, it is reasonable to assume that 20 % of the traffic generated by the redevelopment of the site will come from the north.

- Figure 6, Directional Distribution of Site-Generated Traffic, shows the percentages expected to use each of the four site access points and the percentage of the directional distribution at key points on the external roadway network based on the above discussed second directional distribution approach that used the Suffolk Cement data.

It should be noted that truck traffic destined to and from Sag Harbor will be directed to use the proposed site access driveway in the northwest corner of the site to avoid the low clearance of the LIRR bridge just north of the proposed northeast site access driveway; however, passenger cars will be able to access the site at the northeasterly site access driveway.

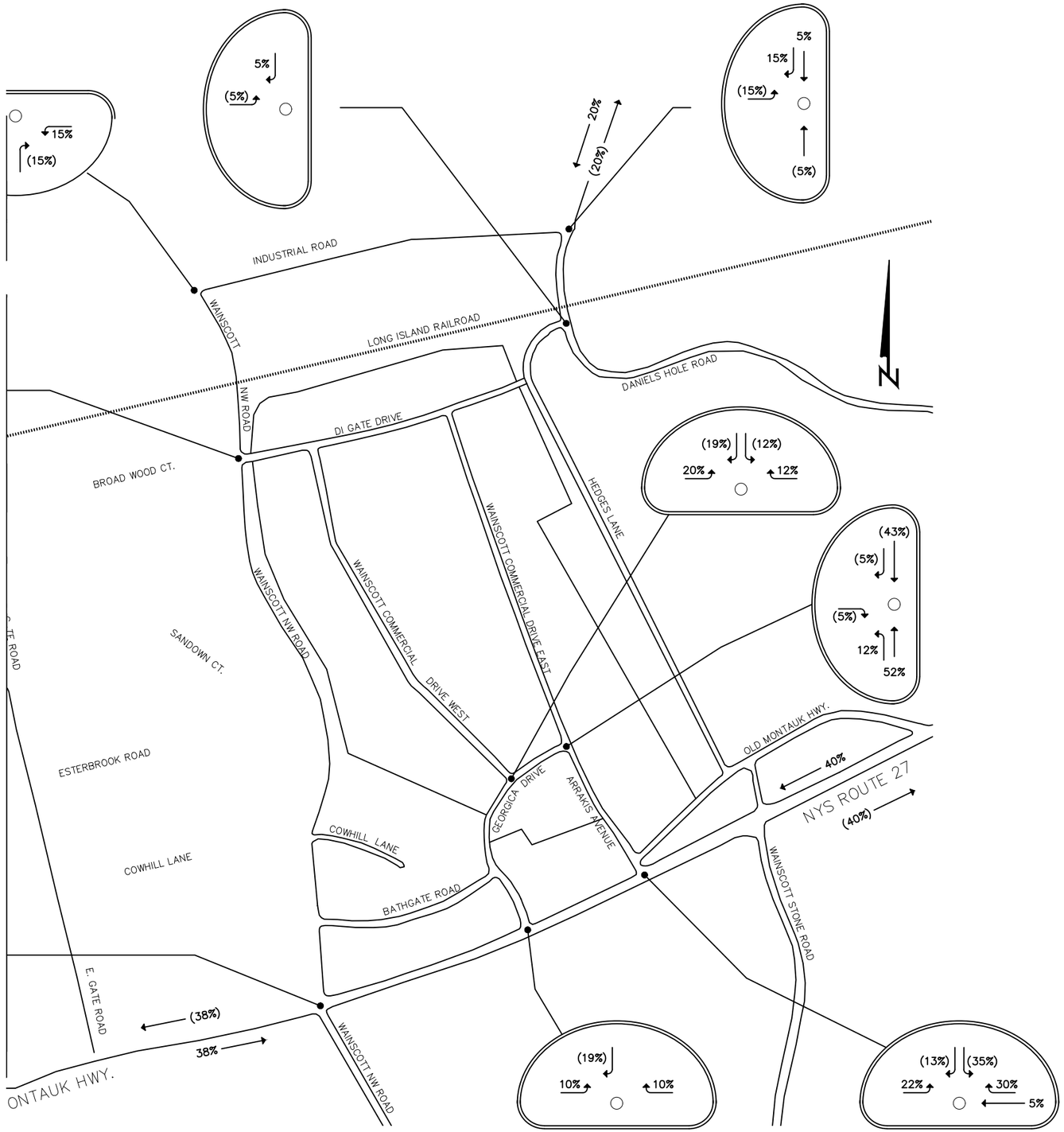


FIGURE 6 DIRECTIONAL DISTRIBUTION OF SITE–GENERATED TRAFFIC
NOT TO SCALE

KEY:
TRAFFIC ENTERING SITE XX
TRAFFIC EXITING SITE (XX)

TRAFFIC ASSIGNMENT ANALYSIS

The site-generated traffic and the directional distribution were utilized to assign traffic volumes to the roadway network via the proposed four access points for the site. Furthermore, site traffic coming from the east and west along Route 27 and destined to the east and west were distributed via the three intersections on Route 27 at 1) Wainscott Northwest Road, 2) Georgica Drive and 3) Old Montauk Highway.

The traffic volumes generated as a result of the proposed development are shown in Figure 7, Assignment of Site-Generated Traffic.

Figure 7 shows the site-generated traffic during the weekday morning peak hour of 8:00 to 9:00 A.M., the weekday afternoon peak hour of 4:00 to 5:00 P.M., and the Saturday peak hour of 12:00 to 1:00 P.M.

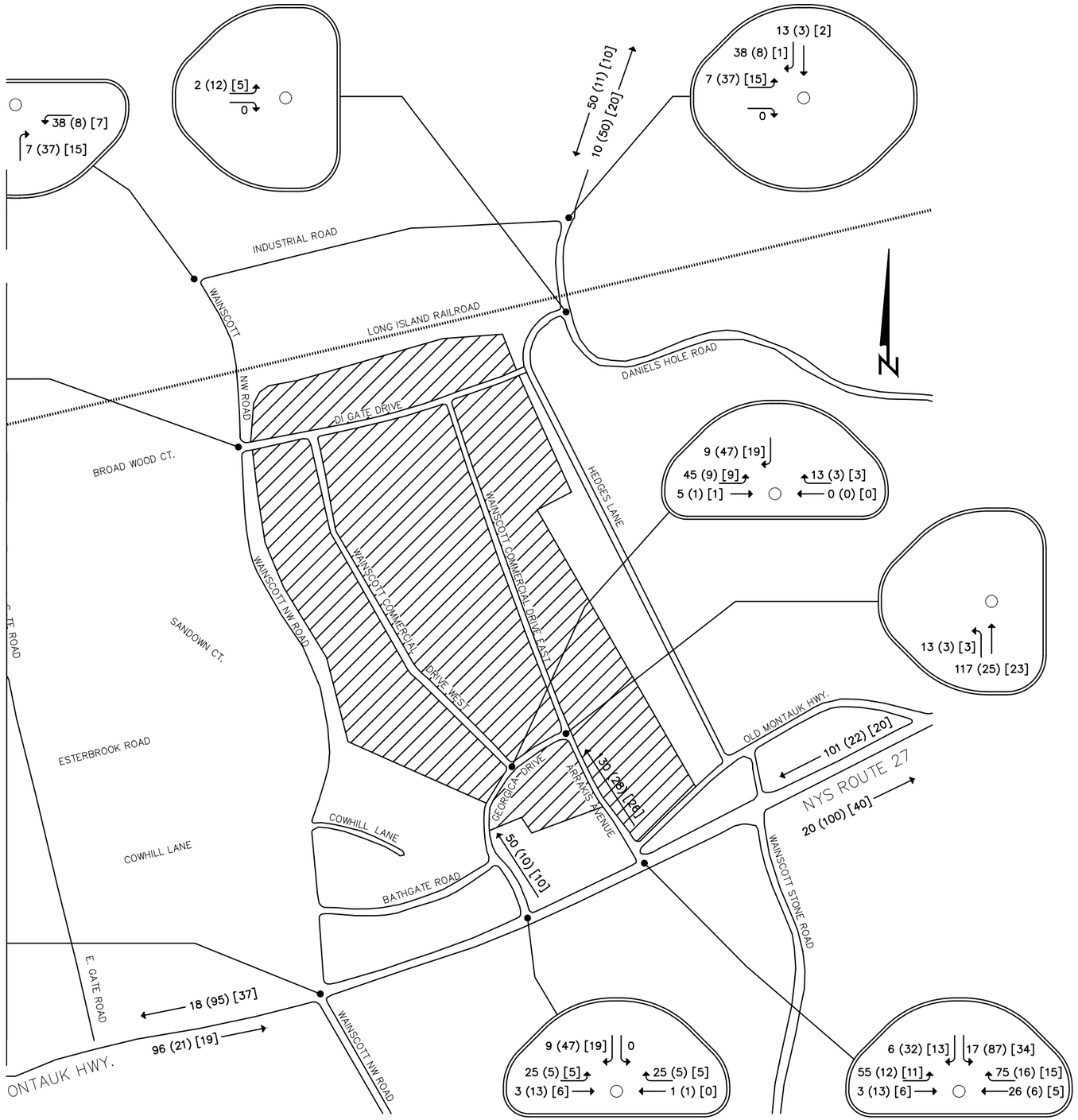


FIGURE 7
ASSIGNMENT OF
SITE-GENERATED TRAFFIC
NOT TO SCALE

KEY:
AM XX
PM (XX)
SAT. [XX]

INTERSECTION CAPACITY ANALYSIS

Unsignalized Intersections

Unsignalized intersection capacity analyses were performed to determine the ability of vehicles to safely negotiate turning movements at the key locations noted below:

- Montauk Highway at Georgica Drive (Future SW Site Access Road Connection)
- Montauk Highway at Old Montauk Highway (Future SE Site Access Road Connection)
- Industrial Road at Daniels Hole Road
- Industrial Road at Wainscott Northwest Road
- Wainscott Northwest Road at Broad Wood Court/ Gate Drive (Future NW Site Access Road)
- Daniels Hole Road at Gate Drive (Future NE Site Access Road)

Since the traffic counts were collected in August of 2017, the counts were projected to 2019 using a 2.5% annual growth factor to account for normal growth. Then, intersection capacity analyses were performed to examine the existing levels of service present at each study intersection (2019 Existing Condition). Next, the 2019 existing volumes were projected to 2021 using a 2.5% annual growth factor, in order to account for normal growth in traffic in the vicinity of the site (2021 No-Build Condition). Finally, the estimated traffic volume generated by the proposed redevelopment was added to the projected 2021 volumes in order to calculate the conditions in the future with the addition of the site generated traffic (2021 Build Condition). Note that this methodology is quite conservative, as the proposed redevelopment will likely occur in stages, and that all 50 lots on the site are not expected to be developed and generating traffic for many years. Figures 8-1, 8-2 and 8-3 present the existing 2019 traffic volumes, the 2021 No Build and the 2021 Build traffic volumes, respectively, based on the traffic assignment analysis and the intersection capacity analyses that were performed.

These analyses were performed in accordance with the methodology set forth in the 2018 edition of the *Highway Capacity Manual*. Summaries of the results of the 6 unsignalized capacity analyses are contained in Tables A thru F in the section entitled “Intersection Capacity Analyses Summaries” in the Appendix.

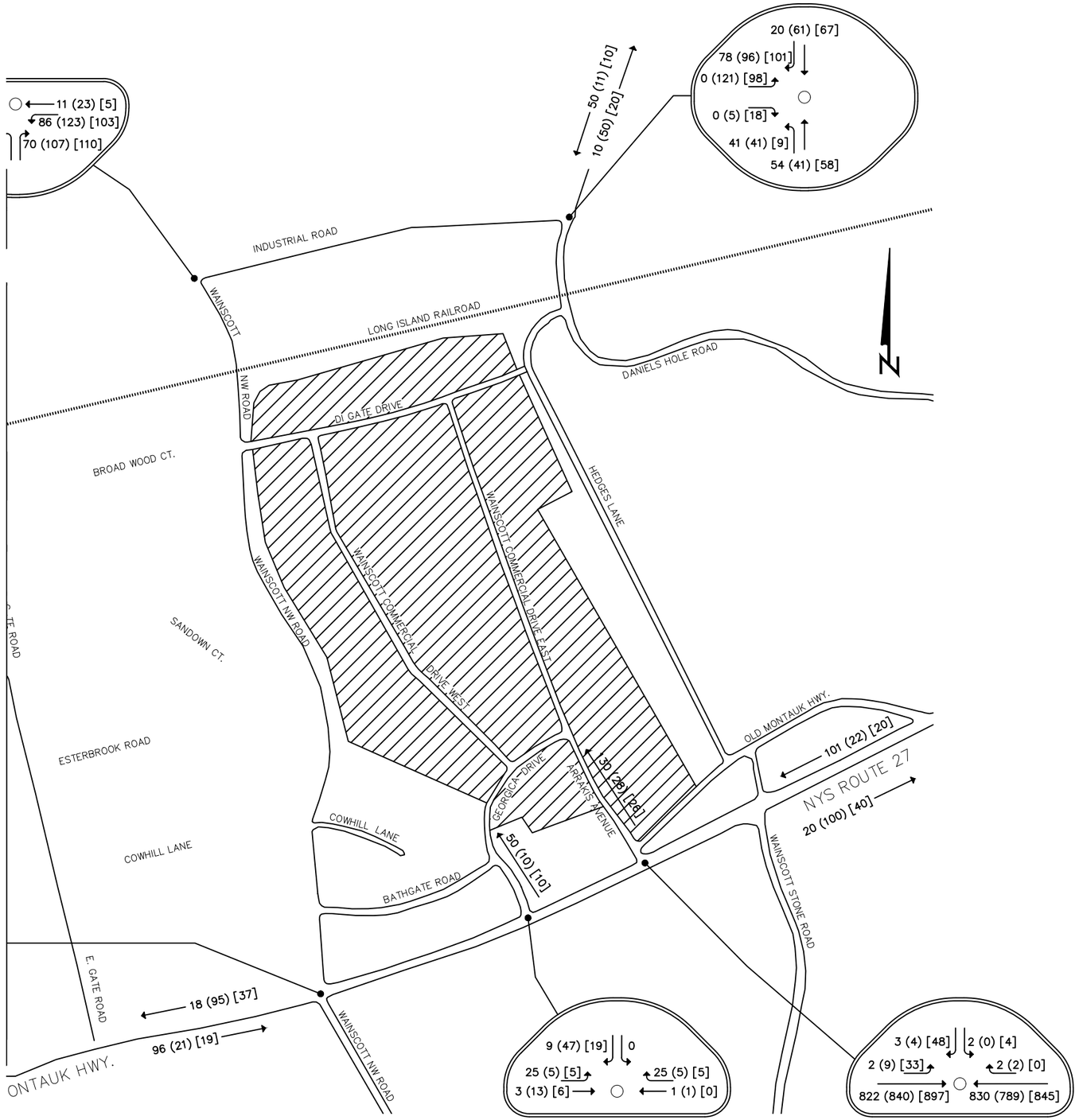


FIGURE 8–1
ADJUSTED EXISTING 2019
NOT TO SCALE

KEY:
AM XX
PM (XX)
SAT. [XX]

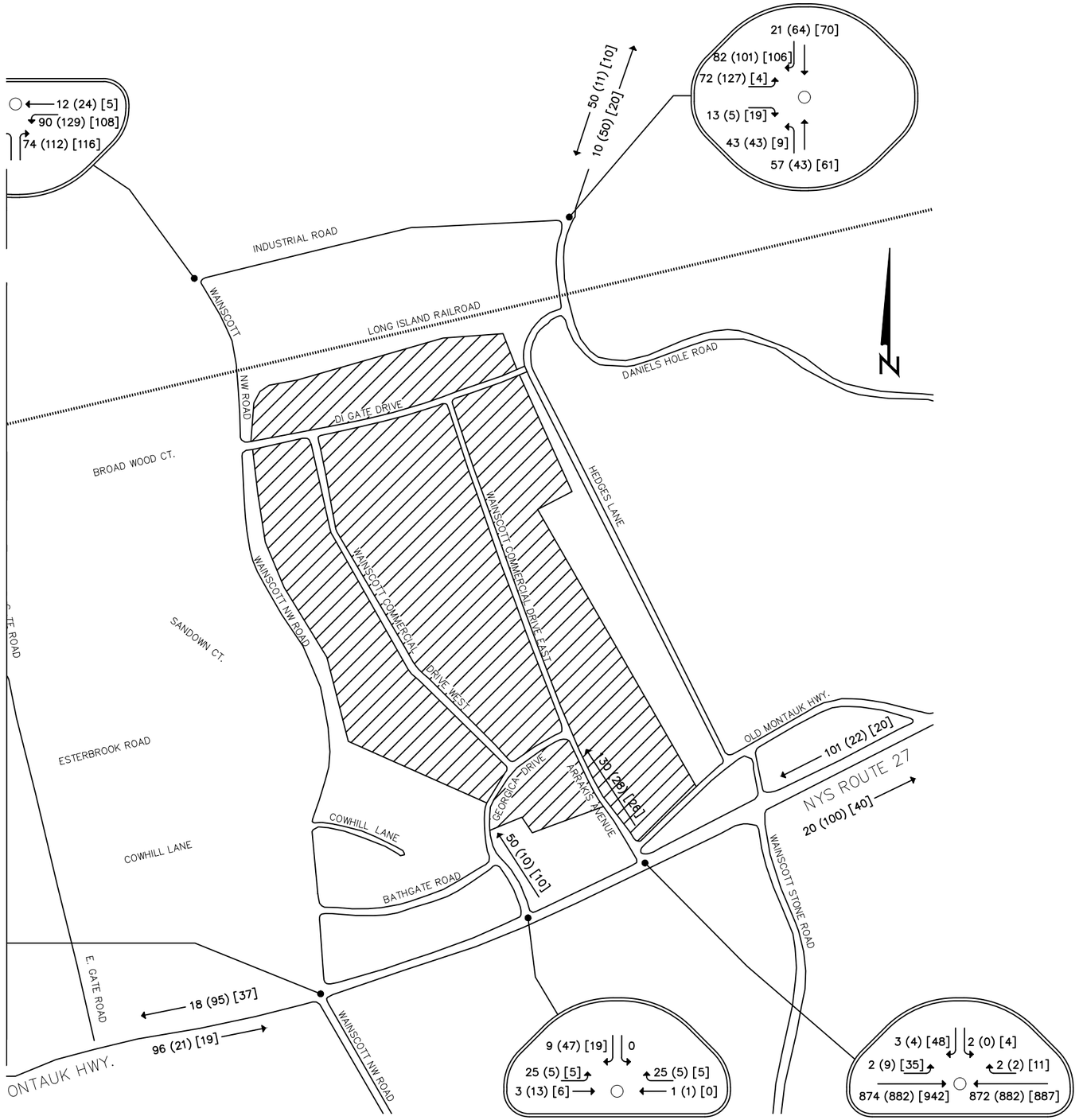


FIGURE 8–2
2021 NO BUILD TRAFFIC VOLUMES
NOT TO SCALE

KEY:
AM XX
PM (XX)
SAT. [XX]

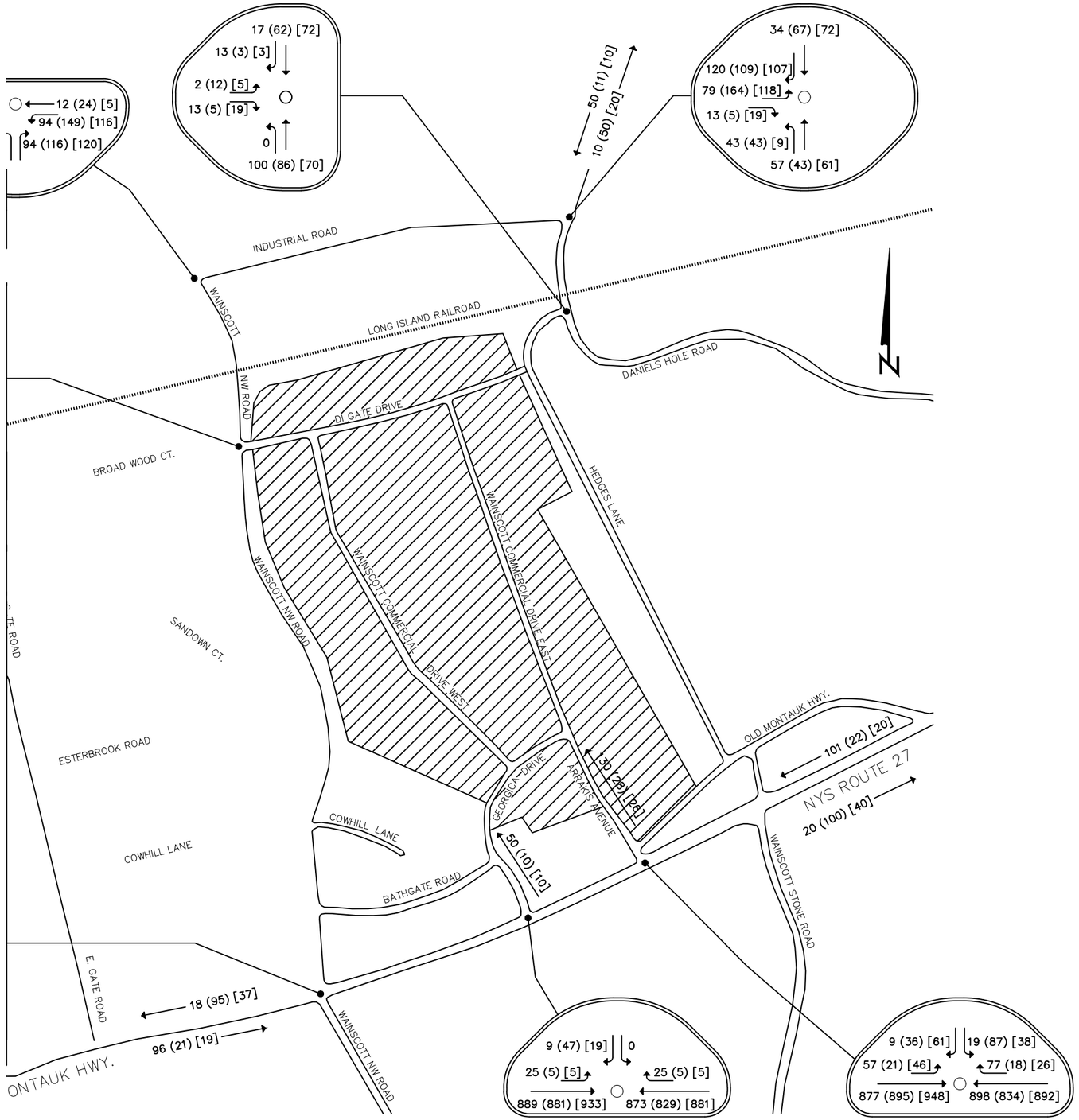


FIGURE 8–3
2021 BUILD TRAFFIC VOLUMES
NOT TO SCALE

KEY:
AM XX
PM (XX)
SAT. [XX]

The left-turns from Montauk Highway onto the unsignalized side streets at Georgica Drive and Old Montauk Highway operate at levels of service A and B under existing conditions at these intersections. The side street approaches operate at levels of service C and D under existing conditions at each location, respectively. Under 2021 No Build conditions, the level of service for the Montauk Highway left-turns remains at levels of service A and B for these two intersections and all time periods. During the weekday morning and afternoon peak periods as well as Saturday peak periods the side street approaches will also continue to operate at levels of service C at Georgica Drive and D at Old Montauk Highway, as under existing conditions. During the Saturday midday peak period, however, the intersection at Old Montauk Highway will fail under PM Build conditions.

Overall, it must be recognized that the unsignalized operations along Montauk Highway are at or near failure under existing conditions, and will be further degraded under No Build conditions. The cause of this poor operation is clearly the cumulative impact of the seasonal traffic on Montauk Highway, which must accommodate these high volumes with just one travel lane in each direction.

The additional traffic generated by the proposed development has a marginal impact on operations at the unsignalized intersections in the vicinity of the site. This is due to the fact that the site-generated traffic will be part of the thru traffic stream on Montauk Highway, and degradations in intersection operations are generally the result of increases in turning movements, rather than slight increases in thru movements.

Therefore, the primary traffic impact of the proposed Wainscott Commercial/Industrial Center will be at the location at which the site generated traffic must access Montauk Highway, since this is the location at which turning movements will be generated. However, our traffic assignment plan is to distribute site generated traffic via three intersections, instead of one, to access Montauk Highway, which will significantly reduce the traffic impact. In order to accommodate this site traffic, a traffic signal will be required on Montauk Highway at Old Montauk Highway/Proposed Site SE Access Road. The analysis of the proposed traffic signal is described in the following section.

Signalized Intersections

The intersection of Montauk Highway at Wainscott Northwest Road is a signalized intersection which is located to the west of the site. Capacity analyses were performed for each peak time period. These analyses were performed in accordance with the methodology set forth in the 2018 edition of the *Highway Capacity Manual*. Summaries of the results of the signalized capacity analyses of this intersection are contained in Table G in the Appendix section entitled "Intersection Capacity Analyses Summaries."

In addition, the installation of a traffic signal at the intersection of Montauk Highway at Reconstructed Old Montauk Highway was considered in case the roundabout recommended in the Wainscott Hamlet report did not get approved by NYSDOT. With the installation of a traffic signal, the intersection will operate at an acceptable level of service A during the weekday morning and afternoon peak periods as well as during the Saturday peak period. If the roundabout proposed in the Wainscott Hamlet report is implemented, this traffic signal will not be needed.

Capacity Analysis Summary

The poor intersection operations which presently exist along Montauk Highway during the summer season will continue regardless of the development of the site. The most significant degradation caused by site traffic would normally be at the closest intersection to the site on Montauk Highway. The installation of a traffic signal on Montauk Highway at Reconstructed Old Montauk Highway/Proposed Site SE Access Road will mitigate the traffic impacts at this location, as well as introduce gaps in the traffic stream for adjacent intersections. The overall site generated traffic can access Montauk Highway via the three intersections of 1) Reconstructed Old Montauk Highway/Proposed Site SE Access Road, 2) Georgica Drive and 3) Wainscott Northwest Road (currently signalized) which helps to alleviate all site generated traffic from using only one roadway/intersection to access Montauk Highway. Thus, the site generated traffic heading to Montauk Highway is distributed to the three intersections and in turn minimizes the traffic impact at this one intersection.

Although the site will generate marginal amounts of additional thru traffic along Montauk Highway at other intersections, the degradation in the operations at these locations is negligible. Also, it should be noted that the only possible means of mitigating the existing, no build, and build condition traffic problems on Montauk Highway would require extensive roadway modifications by the NYSDOT. The modifications necessary to adequately accommodate even the existing traffic volumes would likely include the widening of Montauk Highway to five lanes (two lanes in each direction with a center two-way left-turn lane). This was not considered as a possible modification under this study, as it is strongly opposed by the Town government and the local community. In addition, this possible modification would require the State to acquire portions of adjacent properties to accommodate this roadway widening.

MOVEMENT	EXISTING 2019 AM, PM, SAT	NO BUILD 2021 AM, PM, SAT	BUILD 2021 AM, PM, SAT
ROUTE 27 @ GEORGICA DRIVE / SW ACCESS ROAD			
RT 27 EB TO NB LEFT	N.A.	A, N.A., N.A.	B, A, B
SB GEORGICA DR	N.A.	C, N.A., N.A.	C, C, C
WAINSCOTT NW RD @ BROADWOOD CT / NW ACCESS ROAD			
SB TO EB LEFT INTO NW SITE DRIVEWAY	N.A.	N.A.	A, A, A
NB TO WB LEFT TURN	--	--	A, A, A
WB GATE DRIVE	N.A.	N.A.	B, B, A
EB BROADWOOD CT	--	--	A, B, A
WAINSCOTT NW RD @ INDUSTRIAL RD			
WB TO SB LEFT	A, A, A	A, A, A	A, A, A
NB WAINSCOTT NW RD	A, A, A	A, A, A	A, A, A
INDUSTRIAL RD @ DANIEL'S HOLE RD			
NB TO WB LEFT ONTO INDUSTRIAL RD	A, A, A	A, A, A	A, A, A
EB INDUSTRIAL RD	B, B,B	B, B, B	B, B, B
DANIEL'S HOLE RD @ NE ACCESS ROAD			
EB SITE ACCESS RD	N.A.	N.A.	A, A, A
NB TO WB LEFT ONTO NE SITE ACCESS RD	N.A.	N.A.	A, A, A
ROUTE 27 @ RECONSTRUCTED OLD MONTAUK HWY / SE ACCESS RD			
RT 27 EB TO NB LEFT	A, A, B	B, A, B	B, B, B
SB RECONSTRUCTED OLD MONTAUK HWY	D, C, C	D, C, D	F, F, F

TABLE 6
SUMMARY OF LEVELS OF SERVICE
UNSIGNALIZED INTERSECTIONS

MOVEMENT	EXISTING 2019 AM, PM, SAT	NO BUILD 2021 AM, PM, SAT	BUILD 2021 AM, PM, SAT
RT 27 @ WAINSCOTT NORTHWEST ROAD (EXISTING SIGNAL)			
OVERALL L.O.S	B, B, C	B, B, C	B, B, C
RT 27 @ RECONSTRUCTED OLD MONTAUK HWY / SE ACCESS ROAD (PROPOSED SIGNAL)			
OVERALL L.O.S	N.A.	N.A.	A, A, A

TABLE 7
SUMMARY OF OVERALL LEVELS OF SERVICE
SIGNALIZED INTERSECTIONS
(EXISTING AND PROPOSED)

For ease of reference, Table 6 summarizes the levels of service at the key unsignalized intersections during the weekday AM and PM as well as the Saturday peak hours for the Existing (2019), No-Build (2021), and Build (2021) conditions.

Table 7 summarizes the levels of service at the key signalized intersections during the weekday AM and PM as well as the Saturday peak hours for the Existing (2019), No-Build (2021), and Build (2021) conditions.

It should be noted that Capacity Analyses at the intersection of Route 27 at the Reconstructed Old Montauk Highway were performed first as an unsignalized intersection in Table 6 and then were performed with the addition of a traffic signal to better accommodate the existing traffic and the site generated traffic in Table 7.

Additional information is contained in the sections of the Appendix entitled “Summaries of Capacity Analysis” and “Capacity Analyses Results”.

ACCESS EXAMINATION

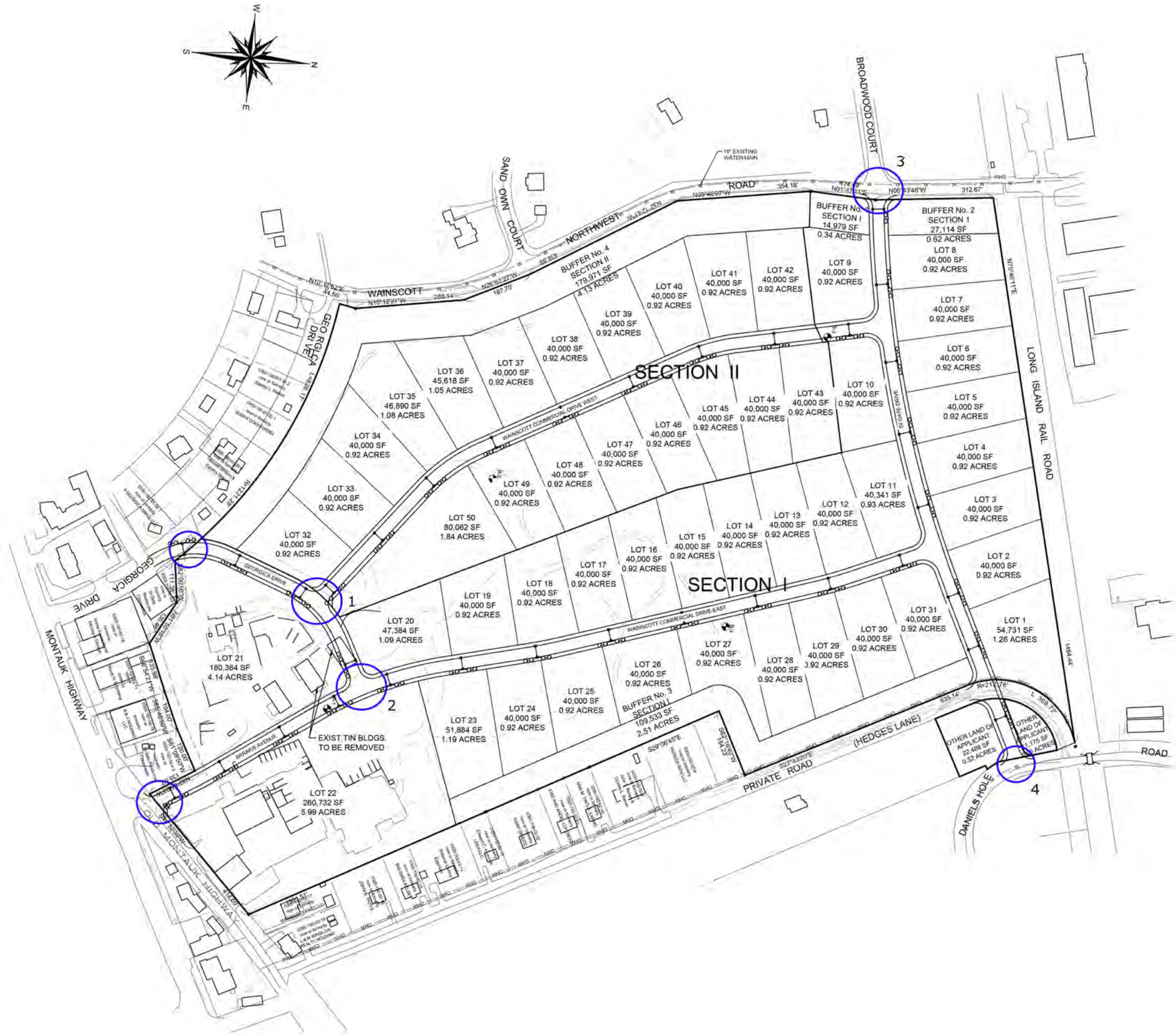
As described previously, the site has four access driveways: 1) two at the southerly portion of the site, 2) one at the northwesterly portion of the site, and 3) one at the northeasterly portion of the site.

Figure 9, Site Access, highlights the locations of the four proposed site access driveways as well as the internal roadway network on the 50 lot subdivision map.

The access drives in the northwest and northeast corners of the site are provided to allow traffic traveling to and from the north to enter the site at its north end, thereby avoiding Montauk Highway and reducing traffic through the intersections along Montauk Highway. The northeasterly driveway meets Daniel's Hole Road just south of the existing Long Island Railroad trestle. It should be noted that this access driveway does provide a path for some northbound traffic to avoid Montauk Highway, but that truck traffic must still use the northwesterly access drive, because of the limited vertical clearance of the railroad trestle over Daniel's Hole Road. The point at which this access drive meets Daniel's Hole Road shall be located as far to the south as possible on the site, meaning that it would be located approximately at the back of the curve on Daniel's Hole Road, thereby maximizing sight distance in both directions along Daniel's Hole Road. It is expected that employees traveling to and from the north will use this access drive since there is sufficient vertical clearance under the trestle for these vehicles.

The access drive located at the northwest corner of the site provides access to Wainscott Northwest Road at the existing T-intersection with BroadWood Court. This driveway would allow truck traffic coming from and destined for areas north of the site to avoid the residential areas along the southern section of Wainscott Northwest Road. The restriction of WB to SB left turns out of this site driveway for trucks only will assure that trucks departing the site do not travel past the existing residents to the south along Wainscott Northwest Road. The LIRR tracks cross Wainscott Northwest Road at an at-grade crossing, which is fully-equipped with warning lights and gates, so bridge clearance is not a concern as it is along Daniel's Hole Road. Wainscott Northwest Road can be used to proceed to or from Sag Harbor and points to the north of the site.
The southwesterly access driveway connects to Georgica Drive which connects to Montauk Highway. The southeasterly access driveway connects to Old Montauk Highway which in turn connects to Montauk Highway.

Each driveway will consist of a single entrance lane and a single exit lane. The exit lane at each access driveway shall be STOP controlled.



FOUR SITE ACCESS POINTS

1. GEORGICA DRIVE AT COMMERCIAL DRIVE WEST (SW ACCESS)
2. GEROGICA DRIVE AT COMMERCIAL DRIVE EAST (SE ACCESS)
3. WAINSCOTT NORTHWEST ROAD AT GATE DRIVE (NW ACESS)
4. DANIEL'S HOLE ROAD AT GATE DRIVE (NE ACCESS)

FIGURE 9
SITE ACCESS
NOT TO SCALE

REVIEW OF TOWN'S WAINSCOTT HAMLET REPORT

The May 30, 2017 Draft of "East Hampton Hamlet Report, Wainscott" was reviewed in relation to transportation. It should be noted that their discussions of the proposed site were based on the previous preliminary subdivision plan filed in 1990 and does not include the present proposed plan presented in this Traffic Impact Study. Of significance is the fact that the present plan contains a) 50 lots of commercial/industrial uses, b) four access locations, and c) an internal roadway network on the site.

The Hamlet report bases its discussions on one southerly site access with site generated vehicular traffic gaining access to and from Route 27, Montauk Highway, primarily via Georgica Drive and secondarily via Old Montauk Highway. With the proposed inclusion of four site access driveways, the site generated traffic is divided among the four well separated access driveways. Instead of widening Bathgate Road to the west to Wainscott Northwest Road as recommended in the Hamlet report, our access plan in this Traffic Impact Study provides a northwesterly access driveway that allows non-truck traffic to turn out of the site on to Wainscott Northwest Road that distributes the site generated traffic destined to Montauk Highway to access Route 27, Montauk Highway, at the three intersections of 1) Old Montauk Highway, 2) Georgica Drive and 3) Wainscott Northwest Road which helps to further reduce the traffic impact to Montauk Highway and minimize traffic congestion.

For ease of reference, seven figures contained in the Hamlet report are presented in the section of the Appendix entitled "Hamlet Report Recommendations": 1) Illustrative Master Plan Overview: Wainscott, 2) Illustrative Master Plan – East Side, 3) Key Roadway Recommendations Wainscott, 4) Roundabout Concept – Montauk Highway at Old Montauk Highway, 5) Issues and Opportunities: Wainscott, 6) Illustrative Master Plan – West Side and 7) Conceptual Framework: Wainscott. Alternatively, this Traffic Impact Study presents roadway improvements that accommodate the proposed use of the site under the current zoning that mitigate the addition of the site generated traffic.

The Hamlet report suggested other land uses be considered for the proposed commercial/industrial subdivision. Some of the suggestions included expanded commercial, mixed use, residential housing, affordable housing, parking, transit center, LIRR station, open space, ball fields or some combination of these. It should be noted the developers have considered various land use alternatives for the site, but at present desire to proceed with the proposed commercial/industrial use for which the property is currently zoned.

ROADWAY MODIFICATIONS

There are three key components of the site development that minimize the amount of external roadway modifications. These components are:

- Creation of an internal roadway network that services the 50 lots in the subdivision and distributes the site generated traffic to four well designed and appropriately located access points.
- Creation of four access roads that distribute the site generated traffic over the internal roadways to the four well separated access points onto the external roadways so that congestion and traffic impacts are minimal.
- Provision of roadway modifications that mitigate the overall traffic impact of the proposed site on the surrounding street and highway network.

Internal Roadway Network

Figure 10 presents the internal roadway network which is highlighted in orange. Site generated traffic is accommodated and distributed on the internal roadways to the four access points for the site rather than forcing the traffic onto only one of the adjacent external roadways. This design minimizes traffic congestion and traffic delays on the external roadways.

Site Access Plan

Figure 11 shows the four site access locations which are circled and numbered. The provision of four site access points has distinct advantages over a single access at the southerly end on the site. It separates the driveways and distributes traffic into four points instead of one with a concentrated traffic volume at just one point. Each access driveway shall consist of one entry lane and one exit lane.

The roadway and intersection improvements are described below in the following paragraphs.

Proposed Roadway Improvements

The following modifications are recommended:

- The western end of Old Montauk Highway should be realigned to meet the proposed Site SE Access Road at a right angle which in turn will meet Route 27 at a right angle.

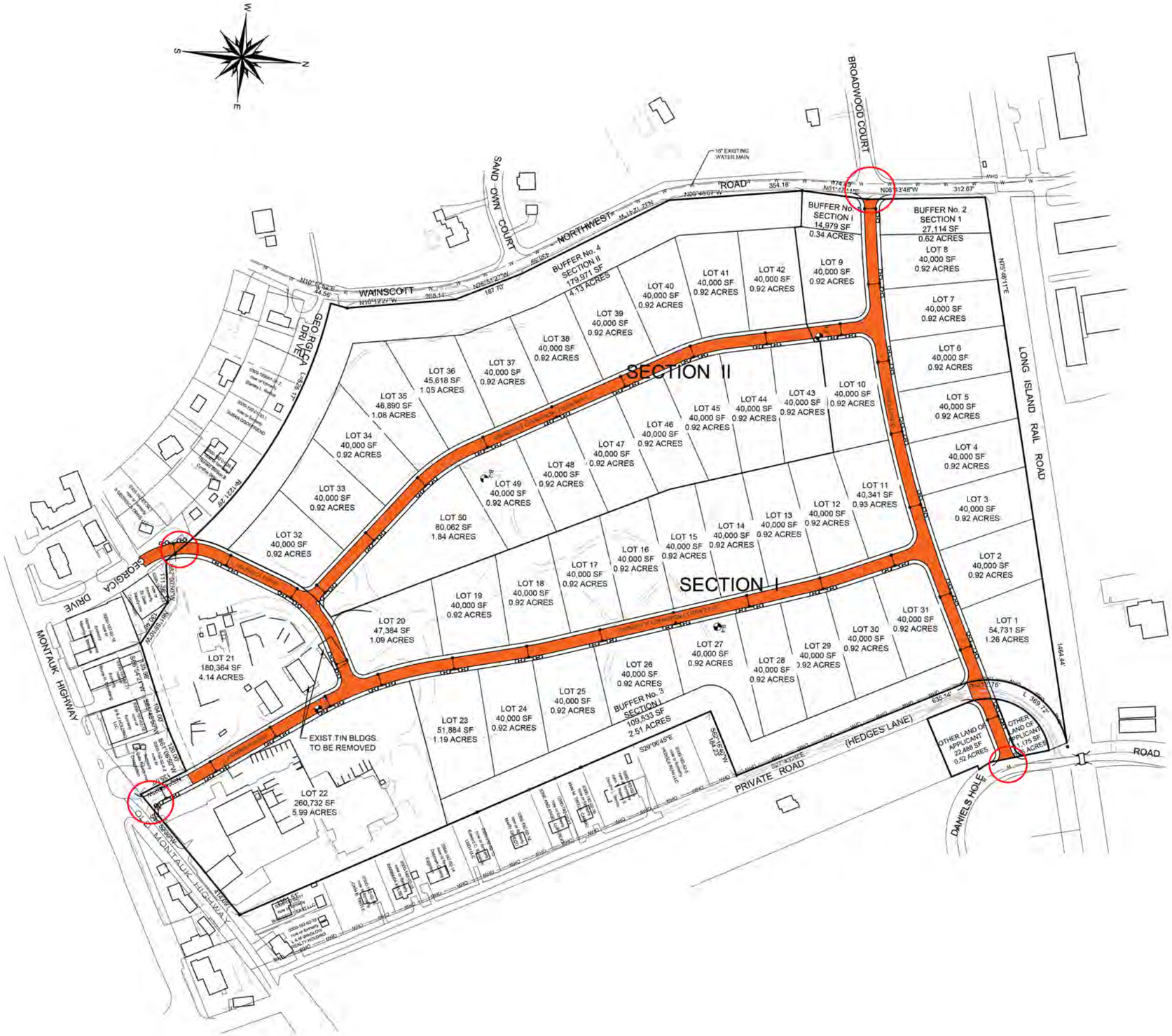


FIGURE 10
INTERNAL ROADWAY NETWORK
NOT TO SCALE

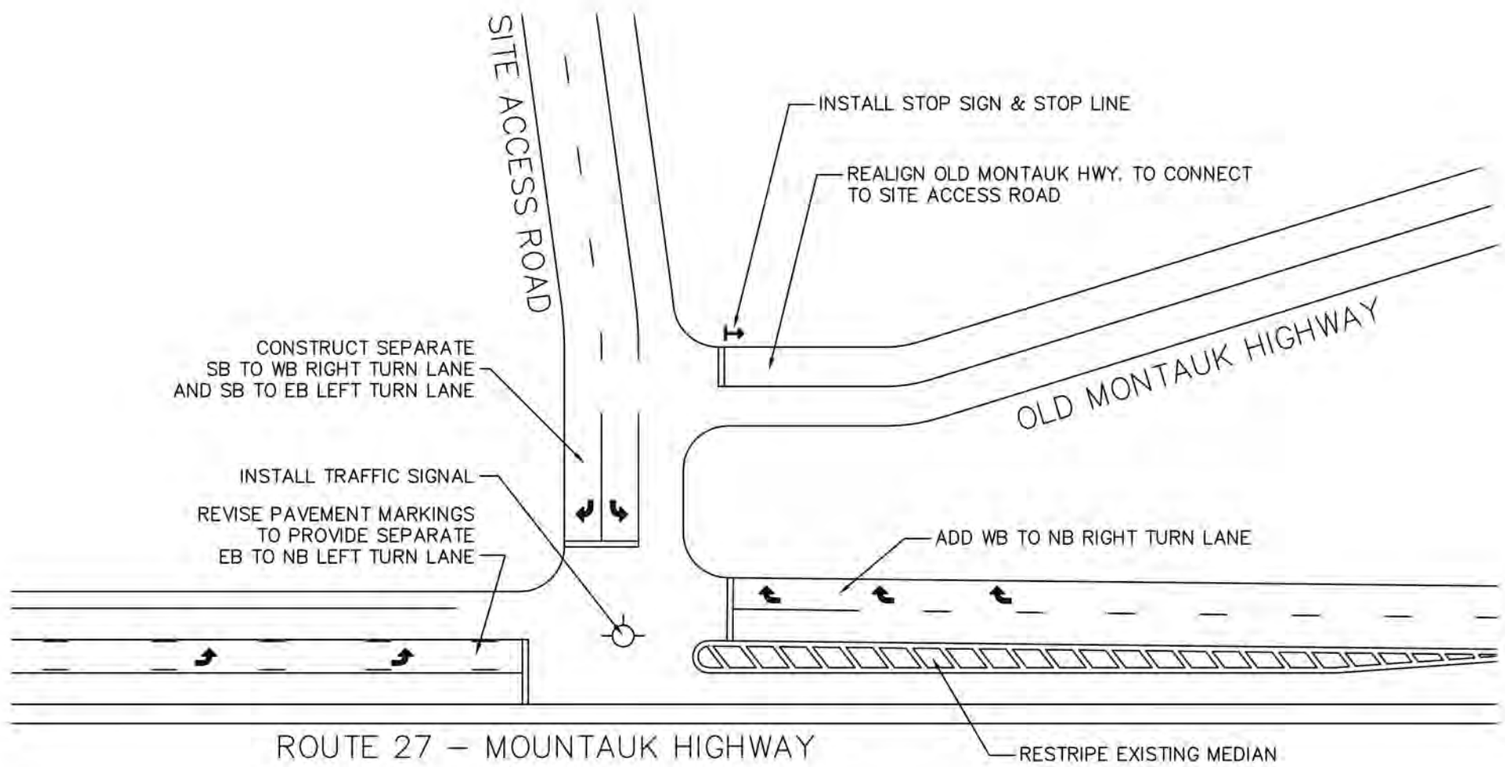


FIGURE 11
REALIGNMENT OF OLD MONTAUK HIGHWAY
AT MONTAUK HIGHWAY
NOT TO SCALE

- The intersection of Old Montauk Highway and Montauk Highway should be signalized. The signal should be three-phase, full-actuated, with protected-permitted eastbound left-turns. In the event the NYSDOT implements a roundabout at this intersection, the traffic signal installation will not be necessary.

- Old Montauk Highway should be constructed with a separate SB to WB right-turn lane, a separate SB to EB left-turn lane, and one receiving lane.

- The eastbound approach of Montauk Highway at Old Montauk Highway should be restriped to designate the existing two-way left-turn lane as an exclusive eastbound left-turn lane on to Old Montauk Highway.

- The westbound approach of Montauk Highway at Old Montauk Highway should be widened on the north side to provide a separate westbound to northbound right-turn lane. This lane should be full width for sufficient length to allow westbound vehicles on Montauk Highway to safely decelerate and turn without impeding thru vehicle movements.

- STOP signs and STOP bars should be installed at locations shown in Figure 11.

- Georgica Drive should be reconstructed and restriped to provide one travel lane in each direction, and to sufficiently separate roadway traffic from the parking and loading areas for adjacent building.

Since the existing capacity provided at the intersections of Wainscott Northwest Road at Industrial Road and Daniel's Hole Road at Industrial Road is more than sufficient to accommodate the minor traffic increases expected in the area north of the site, no roadway modifications are recommended for these locations.

Compatibility with Hamlet Report

In reference to the roadway improvement recommendations in the Hamlet Report, our comments relate to the compatibility of each improvement with the roadway improvements presented for this commercial-

industrial redevelopment project:

Roundabout on Route 27 at Old Montauk Highway

In the event the NYSDOT approves, obtains funding and initiates design and construction projects to implement this roundabout, the roundabout will be consistent with our access plan that will permit site generated traffic to arrive and depart the site via the intersection of Route 27 at Old Montauk Highway. Vehicles entering the site will be able to easily travel through the roundabout from both the east and west.

The roundabout will slow traffic down to a speed of 20 mph, which is generally used for traffic entering, traveling through and exiting a roundabout.

Signalization of Route 27 at Old Montauk Highway

If the NYSDOT does not approve the installation of a roundabout at this location at this time, the alternative of implementing a traffic signal should be considered as part of opening of this redevelopment of the site. The southbound approach of the intersection should be modified to meet Montauk Highway at a right angle with a separate SB right turn lane and a separate SB left turn lane. This traffic signal will create gaps in the EB & WB travel directions to make safer left and right turns along this section of Montauk Highway.

Roundabout on Route 27 at Wainscott Northwest Road

In the event the NYSDOT approves, obtains funding, and initiates design and construction projects to implement this roundabout, the roundabout will be consistent with our access plan that will permit site generated traffic to arrive and depart the site via the intersection of Route 27 at Wainscott Northwest Road. Site generated traffic will be able to travel through the roundabout both via the east and the west as well as the south approaches.

At present, the existing traffic signal will be able to accommodate site generated traffic without a major deterioration of the level of service; however, in the event that the NYSDOT does not implement a roundabout at this location, the Town of East Hampton should restripe the southbound approach to provide a 10 foot wide SB to WB right turn lane, a 10 foot wide SB to EB left turn lane, and a 14 foot

wide northbound travel lane within the 50 foot existing rights-of- way that accommodates a 34 foot wide roadway width.

Route 27 at Georgica Drive

At present the intersection of Route 27 at Georgica Drive is unsignalized. If the SB intersection approach was restriped to provide a separate 10 foot wide SB right turn lane and a separate 10 foot wide left turn lane , this intersection could serve as the third intersection on Route 27 that could accommodate both left and right turns in and out from and to WB and EB Route 27, which could also be used to travel to and from the proposed site.

Bathgate Road Extension

The widening of Bathgate Road by the Town, as recommended in the Hamlet report, could create a roadway connection between Wainscott Northwest Road and the site's proposed SE and SW Access Roads via Georgica Drive which will be extended through the southerly portion of the site as shown on the subdivision plan/ internal roadway layout.. This widening by the Town would provide a safer E-W Bathgate Road that could help to distribute site generated traffic to three intersections with Route 27: 1) Wainscott Northwest Road, 2) Georgica Drive/Proposed Site SW Access Road and 3) Reconstructed Old Montauk Highway/ Proposed Site SE Access Road. However, the site access plan accomplishes this objective whereby the site's two southerly access points distribute site generated traffic to Route 27 via Georgica Drive and Old Montauk Highway. Furthermore, the northwesterly site access driveway allows non-truck traffic to make a left turn out of the site on to Wainscott Northwest Road to connect to Route 27. Thus, the site access plan does not require the extension of Bathgate Road; however, it still should be considered by the Town whether or not this site is developed as proposed.

ADDITIONAL CONSIDERATIONS

Public Transportation

Suffolk County Transit provides bus service to most of Suffolk County. The nearest bus route to the proposed site provided by Suffolk County Transit is the S-92 connector bus line. This route has buses which travel east and west in front of the site along NYS Route 27 in this area. Also, the 10B travels on Montauk Highway between East Hampton and the Bridgehampton Commons shopping center. Additional information can be found in the section of the Appendix entitled, "Public Transportation". Because of the proximity of the two bus routes to the existing site, which would allow employees and patrons to use the buses to travel to and from the site, it is expected that some employees and patrons may utilize the public transportation system. However, in this study, no credit was applied for use of public transportation, and the traffic destined to and from the expanded site was based on the use of passenger cars only. However, the use of public transportation by employees and patrons would further reduce the minimal traffic impact and the parking needs.

The East Hampton Hamlet Report for Wainscott noted the addition of a train station on the south or north side of the LIRR tracks would provide easy access to and from New York City. This would provide an additional mode of transportation for employees working at the Wainscott Commercial/Industrial Center and in turn would reduce the number of automobile trips to and from the site.

Although the Towns of Southampton and East Hampton say that congestion on the roadways is increasing throughout the year due to increased volumes of commuter traffic during the weekday A.M. and P.M. peak hours, East End officials are saying that the "South Fork Commuter Connection" that extends between Speonk and Montauk is a big success and the LIRR's numbers of ticket sales are backing it up. The Commuter Connection has been praised as an alternative to driving on traffic clogged east/west highways for East End employees. The use of the Commuter Connection by employees of the Wainscott Commercial Center would further reduce the minimal traffic impact and parking needs. In the Appendix section entitled "Commuter Connection", information from a recent press release presents the number of tickets sold over the last year and the continued increase in sales.

In addition, the close proximity of the airport north of the site presents another mode of transportation that could be utilized by employees and executives destined to and from the commercial/industrial sites for business and management meetings.

Traffic Signal Warrant Analysis

Initially, the unsignalized intersection of Route 27 at Old Montauk Highway was analyzed as an unsignalized intersection; however, it was determined that the installation of a traffic signal would provide operational benefits to accommodate the site generated traffic flow which in turn would enhance

movements out of the adjacent side streets onto Route 27. The addition of the traffic signal in concert with the existing traffic signal at Wainscott Northwest Road would allow the two signals to be synchronized to enhance traffic flow along this section of NYS Route 27. Thus, a separate "Traffic Signal Warrant Investigation Report" was prepared for Route 27 at the reconstructed Old Montauk Highway (proposed SE site access road) that satisfies the warrants when the entire site is fully opened. See Figure 11.

Comparison With Two Other Alternatives

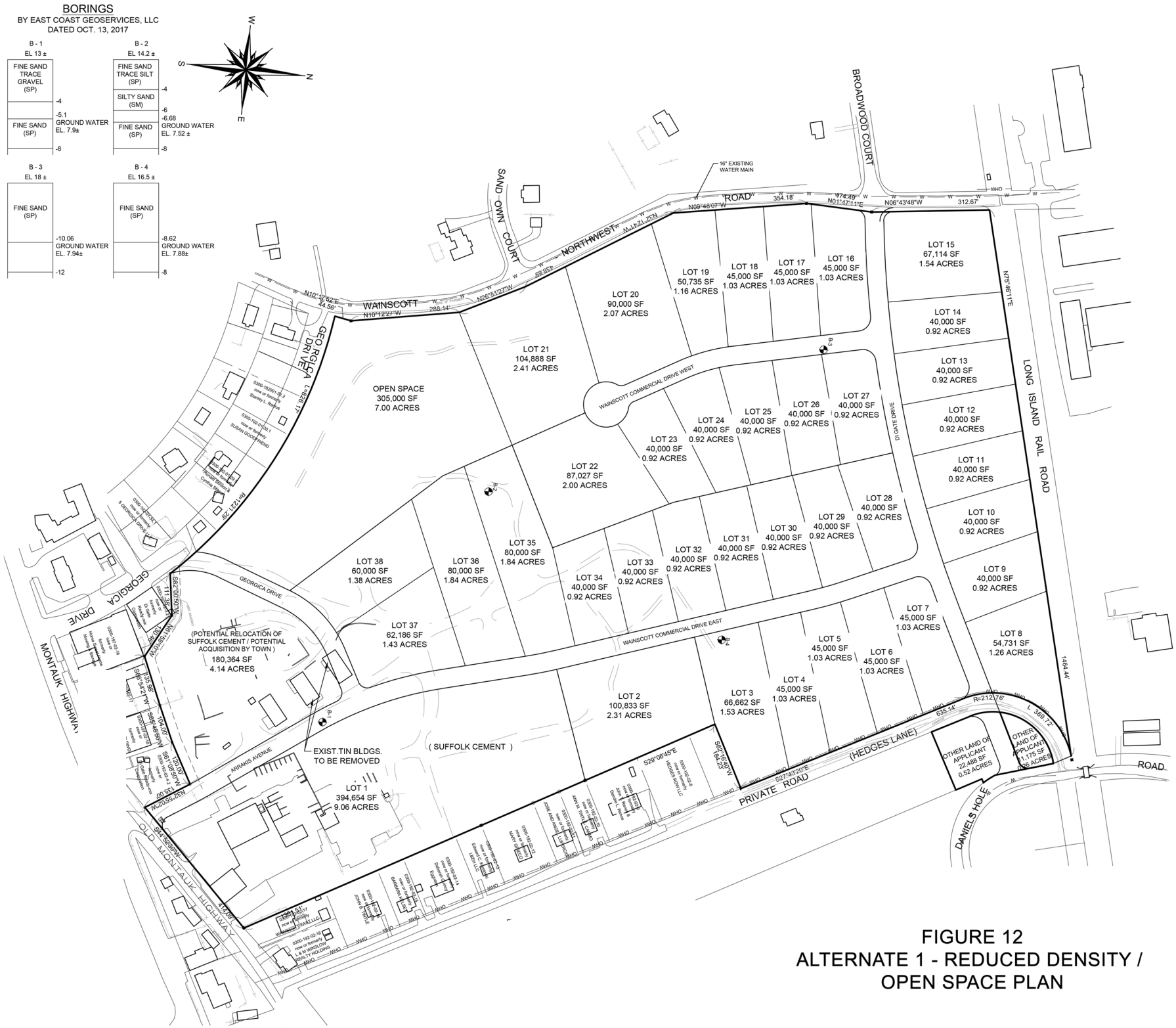
Two other alternative plans of the property were prepared as shown in Figure 12, Alternate 1, Reduced Density/Open Space Plan (37 Lots, 1 of which consists of 7.0 A of Open Space), and Figure 13, Alternate 2, Hamlet Plan (29 Lots, 3 of which include 2.17 A for train station, 7.0 A of Open Space, & 14.0 A for Town park). Table 8 indicates the total site generated traffic for each of these two alternate plans and compares them with the proposed site layout of 50 lots.

Use	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour		Saturday Peak Hour	
	Enter	Exit	Enter	Exit	Enter	Exit
Proposed Site Plan - 50 Lots (376,296 S.F.)						
• Ninth Edition Data	252	48	54	249	49	98
• Tenth Edition Data	100	48	47	104	49	104
Alternate 1, Open Space Plan (128,066 SF)						
• Ninth Edition Data	86	19	23	86	14	31
• Tenth Edition Data	41	10	11	40	18	38
Alternate 2, Hamlet Plan (240,700 SF)						
• Ninth Edition Data	162	35	43	162	27	57
• Tenth Edition Data	78	18	20	76	34	72

Table 8
Comparison of Site Generated Traffic
Proposed Site Layout, Alternate One & Alternate Two

In order to compare "apples to apples", the higher site generation rates from the 9th Edition and the lower rates of the 10th Edition of the "ITE Trip Generation Manual" were used.

It should be noted that the site generated traffic for Alternate One does not include any traffic generation volumes for the Open Space parcel. Also, Alternate Two does not include any traffic generation volumes for the train station, open space and Town park parcels since the exact plans for


BORINGS
BY EAST COAST GEOSERVICES, LLC
DATED OCT. 13, 2017
B - 1
EL 13 ±
FINE SAND TRACE GRAVEL (SP)
FINE SAND (SP)
-4
-5.1 GROUND WATER EL. 7.9±
-8
B - 2
EL 14.2 ±
FINE SAND TRACE SILT (SP)
SILTY SAND (SM)
FINE SAND (SP)
-4
-6
-6.68 GROUND WATER EL. 7.52 ±
-8
B - 3
EL 18 ±
FINE SAND (SP)
-10.06 GROUND WATER EL. 7.94±
-12
B - 4
EL 16.5 ±
FINE SAND (SP)
-8.62 GROUND WATER EL. 7.88±
-8
W
S
N
E
BROADWOOD COURT
16" EXISTING WATER MAIN
SAND OWN COURT
NORTHWEST ROAD
WAINSCOTT
GEORGICA DRIVE
LONG ISLAND RAIL ROAD
MONTAUK HIGHWAY
OLD MONTAUK HIGHWAY
DANIELS HOLE ROAD
PRIVATE ROAD (HEDGES LANE)
WAINSCOTT COMMERCIAL DRIVE WEST
WAINSCOTT COMMERCIAL DRIVE EAST
DI GATE DRIVE
ARRANIS AVENUE
OPEN SPACE 305,000 SF 7.00 ACRES
LOT 1 394,654 SF 9.06 ACRES
LOT 2 100,833 SF 2.31 ACRES
LOT 3 66,662 SF 1.53 ACRES
LOT 4 45,000 SF 1.03 ACRES
LOT 5 45,000 SF 1.03 ACRES
LOT 6 45,000 SF 1.03 ACRES
LOT 7 45,000 SF 1.03 ACRES
LOT 8 54,731 SF 1.26 ACRES
LOT 9 40,000 SF 0.92 ACRES
LOT 10 40,000 SF 0.92 ACRES
LOT 11 40,000 SF 0.92 ACRES
LOT 12 40,000 SF 0.92 ACRES
LOT 13 40,000 SF 0.92 ACRES
LOT 14 40,000 SF 0.92 ACRES
LOT 15 67,114 SF 1.54 ACRES
LOT 16 45,000 SF 1.03 ACRES
LOT 17 45,000 SF 1.03 ACRES
LOT 18 45,000 SF 1.03 ACRES
LOT 19 50,735 SF 1.16 ACRES
LOT 20 90,000 SF 2.07 ACRES
LOT 21 104,888 SF 2.41 ACRES
LOT 22 87,027 SF 2.00 ACRES
LOT 23 40,000 SF 0.92 ACRES
LOT 24 40,000 SF 0.92 ACRES
LOT 25 40,000 SF 0.92 ACRES
LOT 26 40,000 SF 0.92 ACRES
LOT 27 40,000 SF 0.92 ACRES
LOT 28 40,000 SF 0.92 ACRES
LOT 29 40,000 SF 0.92 ACRES
LOT 30 40,000 SF 0.92 ACRES
LOT 31 40,000 SF 0.92 ACRES
LOT 32 40,000 SF 0.92 ACRES
LOT 33 40,000 SF 0.92 ACRES
LOT 34 40,000 SF 0.92 ACRES
LOT 35 80,000 SF 1.84 ACRES
LOT 36 80,000 SF 1.84 ACRES
LOT 37 62,186 SF 1.43 ACRES
LOT 38 60,000 SF 1.38 ACRES
(POTENTIAL RELOCATION OF SUFFOLK CEMENT / POTENTIAL ACQUISITION BY TOWN) 180,364 SF 4.14 ACRES
(SUFFOLK CEMENT)
EXIST.TIN BLDGS. TO BE REMOVED
OTHER LAND OF APPLICANT 22,488 SF 0.52 ACRES
OTHER LAND OF APPLICANT 21,175 SF 0.48 ACRES
N09°48'07"W
N06°43'48"W
N01°47'11"E
N75°46'11"E
S29°06'45"E
S27°43'00"E
S62°16'40"W
S62°00'50"W
S61°48'59"W
S61°08'04"W
S62°54'21"W
S62°32'35"W
N10°12'22"W
N26°51'27"W
N20°09'23"W
L=826.17'
R=1221.39'
R=212.76'
L 369.72'
1464.44'
354.18'
774.49'
312.67'
288.14'
69.95'
635.14'
111.38'
138.46'
735.98'
1004.00'
120.00'
416.00'
0300-150-02-18 now or formerly L & M WINSLOW REALTY HOLDING
0300-150-02-17 now or formerly WAINSCOTT REALTY EAST LLC
0300-150-02-16 now or formerly JOHN P. NILE
0300-150-02-15 now or formerly BARBARA A. LUTZ
0300-150-02-14 now or formerly Dorothy Edgerton
0300-150-02-13 now or formerly LIBERTY C. CHAPMAN
0300-150-02-12 now or formerly MARY C. BEGG
0300-150-02-11 now or formerly ANN M. TRUTT
0300-150-02-10 now or formerly JOHN C. LUTZ
0300-150-02-9 now or formerly JAMES L. FOWLER
0300-150-02-8 now or formerly ACCESS BOX LLC
0300-150-02-7 now or formerly Dennis L. Fowler
0300-150-02-6 now or formerly Home Depot
0300-150-02-19 now or formerly Home Depot
0300-150-02-20 now or formerly Mobil
0300-150-02-21 now or formerly Gulf Station
0300-150-02-22 now or formerly Dunkin Donuts
0300-150-02-23 now or formerly Dunkin Donuts
0300-150-02-24 now or formerly Home Depot
0300-150-02-25 now or formerly Home Depot
0300-150-02-26 now or formerly Home Depot
0300-150-02-27 now or formerly Home Depot
0300-150-02-28 now or formerly Home Depot
0300-150-02-29 now or formerly Home Depot

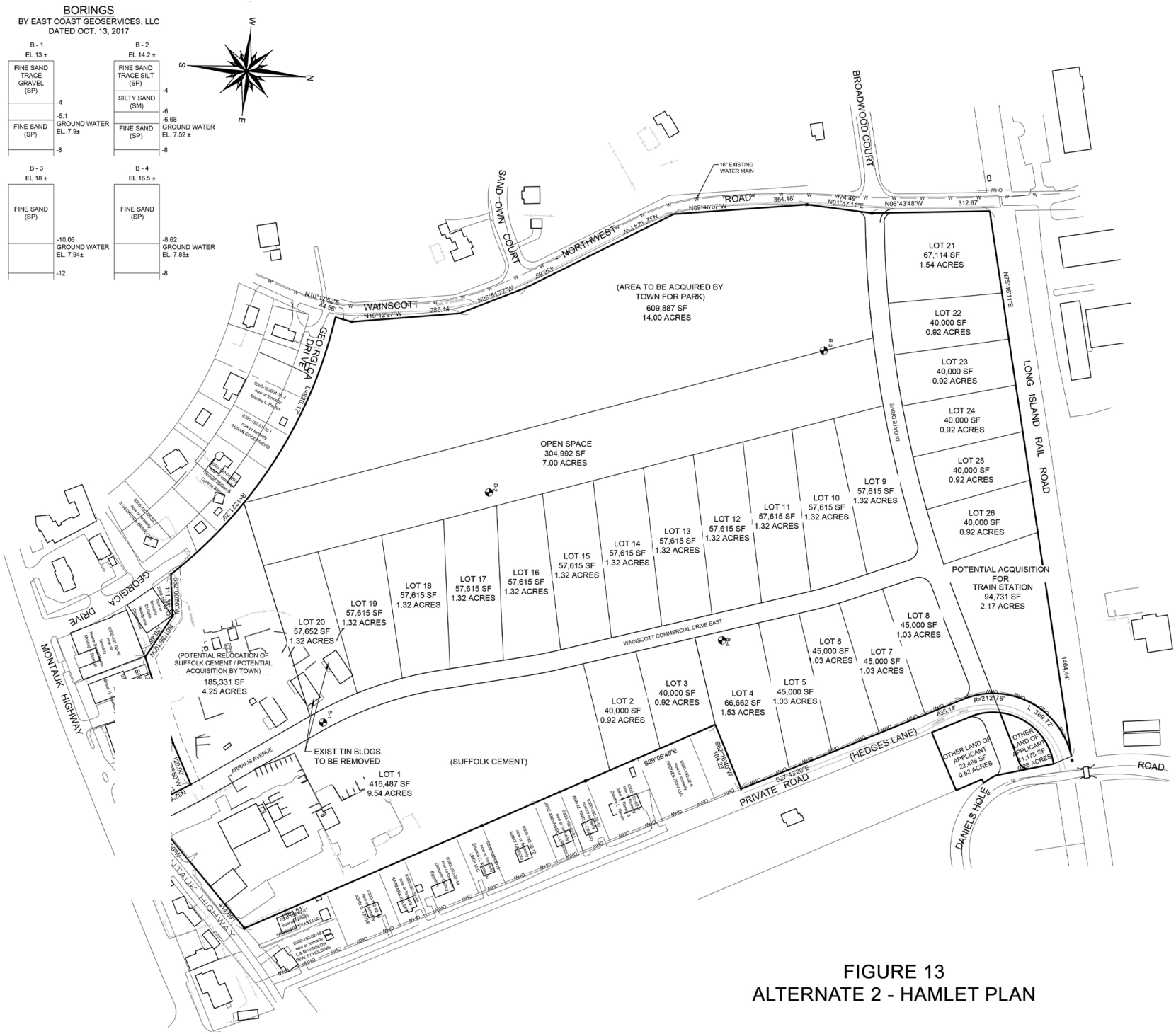


FIGURE 13
ALTERNATE 2 - HAMLET PLAN

these parcels for both Alternates 1 and 2 have not been determined at this time.

Comparing the traffic generated by the two alternate uses with the traffic generated by the proposed site layout using the data from the 9th Edition of the "ITE Trip Generation Manual" indicates that the proposed use generates substantially more traffic during the weekday A.M. and P.M. peak hours as well as the Saturday peak hours: (300 > 105 (Alternate One) and 197 (Alternate Two) in the A.M., 303 > 109 (Alternate One) and 205 (Alternate Two) in the P.M., and 147 > 45 (Alternate One) and 84 (Alternate Two) in the Saturday Peak Hours. Similarly, using data from the most recent 10th Edition of the "ITE Trip Generation Manual" indicates that the proposed use generates substantially more traffic during the weekday A.M. and P.M. peak hours as well as the Saturday peak hours: 148 > 51 (Alternate One) and 96 (Alternate Two) in the A.M., 151 > 51 (Alternate One) and 96 (Alternate Two) in the P.M., and 153 > 56 (Alternate One) and 106 (Alternate Two) in the Saturday peak hours.

As a result, the proposed use has a greater traffic impact than either of these two other alternate uses.

Since Alternates 1 and 2 generate less traffic than the proposed plan, the roadway improvements recommended for the proposed plan will readily mitigate the traffic generated by Alternates 1 and 2 without requiring additional roadway improvements.

However, it should be noted that should the Town of East Hampton decide to acquire portions or all of the property for Public Open Space use, Public Park use and/or a LIRR train station, the individual uses for which the Town determines to provide on each of these locations could result in the need for additional roadway improvements to mitigate the additional site generated traffic for these intended uses.

Examination of Alternatives to Traffic Signal Installation

This Traffic Impact Study has determined that an installation of a traffic signal will be required at full buildout at the intersection of NYS Route 27 and Old Montauk Highway to accommodate SB to EB left turns coming out of the site that desire to proceed east on NYS Route 27 for AM peak hours, PM peak hours and Saturday afternoon peak hours, particularly during the summer when EB and WB traffic volumes are significantly higher than other times of the year. Currently, a traffic signal at that intersection is certainly not needed. Since full buildout of the site will not occur for many years, if not decades, it will be many years before its installation will be necessary. As a result, this section proposes a comprehensive plan that negates the need for a traffic signal for the foreseeable future while improving the current traffic situation.

As discussed in the section entitled "Intersection Capacity Analysis", unsignalized capacity analyses were performed for the intersection of NYS Route 27 at Old Montauk Highway based on the proposed

access plan, the site generated traffic, the directional distribution and the resulting traffic assignment. The resulting levels of service for the Build Condition (2021) were F, F, and F, respectively for the AM peak hours, the PM peak hours, and the Saturday afternoon peak hours. These analyses were based on summer traffic volume data in order to present a worst case traffic situation so that roadway improvements necessary to accommodate the site generated traffic and the higher summer traffic volumes could be determined. Thus, the unsignalized intersection was analyzed again with the possible installation of a traffic signal. The resulting levels of service for this signalized intersection for the Build Condition (2021) were A, A, and A, respectively for the AM peak hours, the PM peak hours, and the Saturday afternoon peak hours. Excellent levels of service will occur with the installation of a traffic signal at NYS Route 27 at the reconstructed Old Montauk Highway. The primary need for a traffic signal at this location is the accommodation of SB to EB left turns coming out of the proposed site that desire to proceed east on NYS Route 27, particularly during the summer when EB and WB traffic volumes are significantly higher than other times of the year. When the traffic volumes are high in both directions on NYS Route 27, there are fewer simultaneous gaps in traffic flow which are needed to make a left turn out of a side street. In other words, the traffic signal is needed during the high summer traffic volumes, while throughout the rest of the year the SB to EB left turns out of the reconstructed Old Montauk Highway that head east on NYS Route 27 to reach East Hampton and points east may be more readily able to make this movement safely due to 1) the lower traffic volumes on EB and WB NYS Route 27 and 2) gaps in the traffic flow that are created on NYS Route 27 by the presence of the existing traffic signal located west of the site on NYS Route 27 at Wainscott Northwest Road.

The big unknown is when in the future will a traffic signal be needed at the intersection of NYS Route 27 at the reconstructed Old Montauk Highway. It should be recognized that the entire site will not be developed all at once. Rather, it could take years or decades until the site is developed fully and consequently it will be years before the traffic signal installation will be necessary. Certainly, right now the traffic signal is not needed. Thus, now is the perfect time to examine practical planning and professional traffic engineering approaches that develop a comprehensive plan that negates the need for an additional traffic signal for both now and in the future and makes the current traffic situation better.

The following paragraphs of this section present an alternative plan that could be implemented without requiring the need for a traffic signal at the intersection of NYS Route 27 at the reconstructed Old Montauk Highway. This alternative plan is aimed at a) being more in tune with the concerns and goals of the Town of East Hampton and the surrounding community to avoid the installation of a traffic signal which is often thought of as being a sign of an urbanized area, and b) assigning or diverting site traffic that desires to head EB on NYS Route 27 to make that SB to EB left turn under the safety of the operation of the existing traffic signal located on NYS Route 27 at Wainscott Northwest Road. Thus, this alternative plan consists of the following actions that could be accomplished via a close working relationship between the NYSDOT, the Town of East Hampton and the applicant of this proposed action:

- The applicant shall erect internal guide signing on the site to direct traffic to utilize specific site access points to depart the site to head to the north, south, east and west via the best route/intersection to safely accommodate each movement.
- The Town of East Hampton shall make practical traffic engineering improvements along Bathgate Road that connects to Wainscott Northwest Road and leads to the traffic signal at NYS Route 27 so that the traffic exiting the site can make a SB to EB left turn onto NYS Route 27 via the safety of the operation of the existing traffic signal.
- The NYSDOT and the Town of East Hampton should widen the southbound approach on Wainscott Northwest Road at the intersection with NYS Route 27 within the existing Rights of Way.
- The Town of East Hampton and the NYSDOT should initiate a project to study/plan, design and construct a roundabout on NYS Route 27 at Old Montauk Highway.

Each of these proposed actions are discussed in more detail in the following paragraphs.

1. Motorists Simple Courtesy

   A courteous situation that may occur occasionally during heavy traffic flows in both directions of travel on the main road during the summer is when an EB motorist in slow or stop and go traffic sees a gap in the WB traffic flow and motions to the motorist who is waiting to make the left turn out of the side street to proceed with the left turn and get in front of him/her on the EB travel lane. This situation requires no action on the part of the Town, State or applicant. It is mentioned here simply because it occurs at times and would allow a few SB to EB left turns out of the reconstructed Old Montauk Highway.

2. Internal Guide Signing

   In order to reduce the Traffic Impact, four access driveways and an internal roadway network shall be constructed. The access plan and the internal roadway network help to distribute traffic flow over several points and reduce overall congestion. As shown in Figure 14, an internal signing plan has been designed to guide departing site traffic to each driveway that best suits the needs of the motorists to reach destinations to the east, west, south and north. The signing was also designed to keep truck traffic from using the two southerly access points to travel to the north along Wainscott Northwest Road and to prohibit left turns for trucks out of the northwest access drive to prevent them from traveling to the south along Wainscott Northwest Road past the residential area. Furthermore, the key concept that was incorporated into the internal signing plan is to guide, divert and direct departing traffic to the traffic signal located on NYS Route 27 at Wainscott Northwest Road where SB to EB left turns could be accommodated safely under the operation of the existing traffic signal which in turn could negate the need of a traffic signal on NYS Route 27 at the reconstructed Old

SIGN TABLE

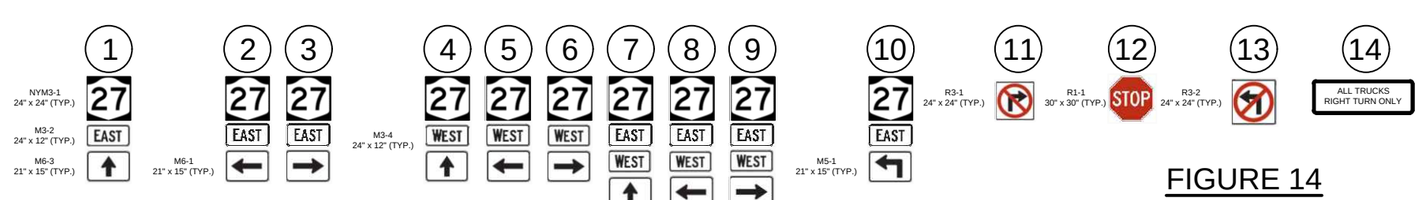


FIGURE 14

Montauk Highway. Route marker assemblies are used to direct departing motorists to the EB and WB directions of NYS Route 27.

3. Bathgate Road Improvements

It is recommended that the operation of Bathgate Road between Georgica Drive and Wainscott Northwest Road be converted to one-way westbound with a parking lane and a sidewalk created on the south side of Bathgate Road so customers of businesses located to the south can park and gain access to these stores. Landscaping could also be added along the north side of Bathgate Road which could serve as an aesthetic buffer to the residences that are located just north of Bathgate Road. The existing roadway could be repaved and restriped with one-way westbound signs erected. These improvements would be beneficial to the businesses for both deliveries and for their customers. The existing southbound to westbound no right turn sign should be removed on SB Georgica Drive just north of Bathgate Road.

This plan would also serve to guide motorists departing the site to Wainscott Northwest Road and the existing traffic signal at NYS Route 27 where SB to EB left turns could be accommodated under the safe operation of the traffic signal which will help to negate the need for a traffic signal installation on NYS Route 27 at the Reconstructed Old Montauk Highway.

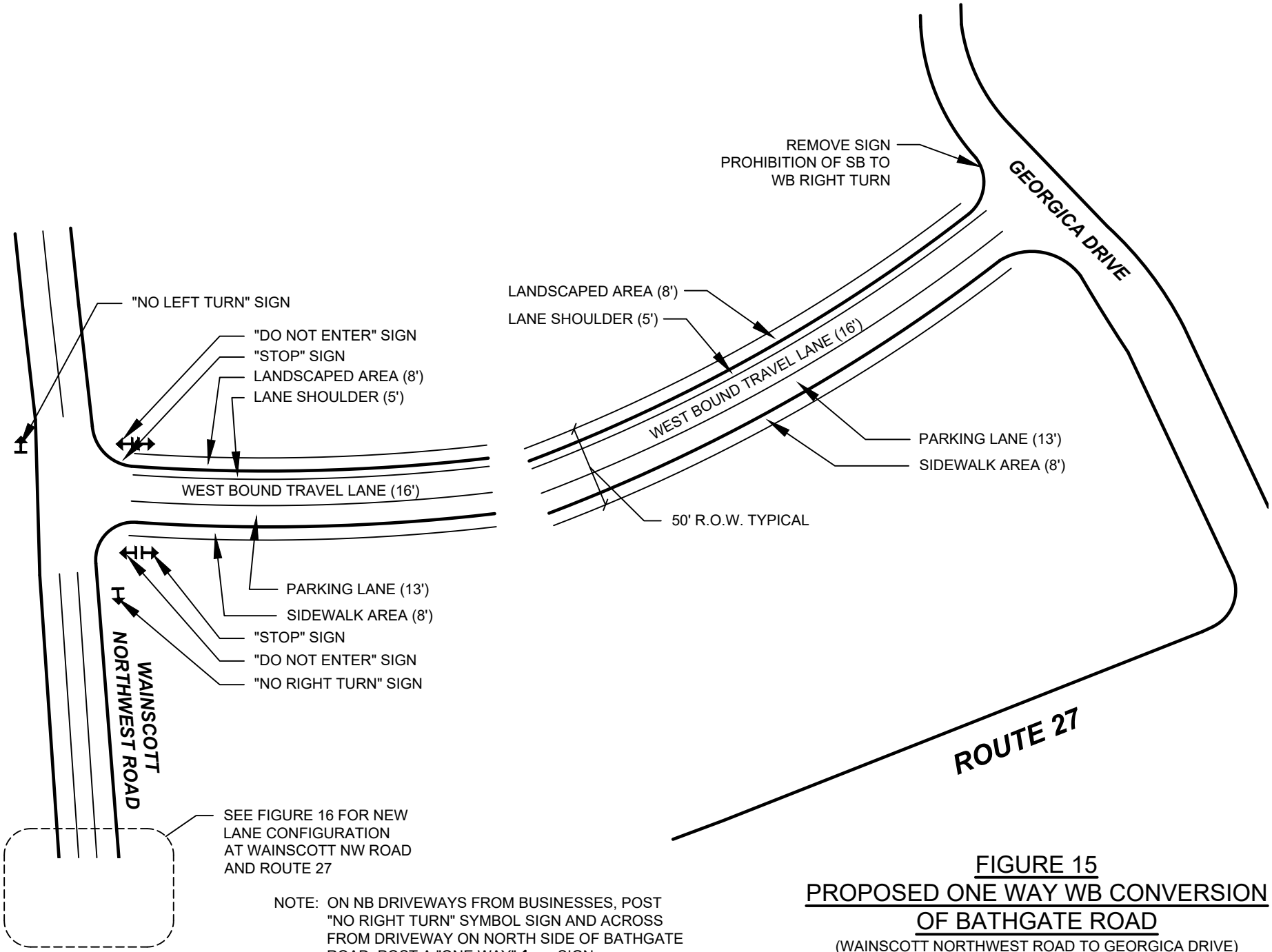
Figure 15 shows a plan view of the proposed lane layout of this one way westbound 16 foot wide travel lane with a 13 foot wide parking lane with a nine foot wide sidewalk area on the south side of Bathgate Road along with a 5 foot wide shoulder and 7 foot wide landscaped area on the north side all within the 34 foot wide pavement and the fifty foot wide R.O.W.

4. Widening of Southbound Approach on Wainscott Northwest Road

The existing signalized intersection of NYS Route 27 at Wainscott Northwest Road has the following lane layouts:

Eastbound NYS Route 27 Approach:	A separate left turn lane and a combined thru/right turn lane
Westbound NYS Route 27 Approach:	A separate left turn lane and a combined thru/right turn lane
NB Wainscott NW Road Approach:	A separate left turn lane and a combined thru/right turn lane
SB Wainscott NW Road Approach:	A combined left turn/thru/right turn lane

The efficiency of the operation of the traffic signal should be enhanced by widening the roadway and creating additional turning lanes on the southbound intersection approach on Wainscott Northwest Road. The creation of additional turning lanes on the southbound intersection approach will require less green time to be assigned to the side street and permit this reduced time to be added back onto NYS Route 27 that will enhance traffic flow on NYS Route 27. A lane layout configuration that



NOTE: ON NB DRIVEWAYS FROM BUSINESSES, POST "NO RIGHT TURN" SYMBOL SIGN AND ACROSS FROM DRIVEWAY ON NORTH SIDE OF BATHGATE ROAD, POST A "ONE WAY" ⟵ SIGN

FIGURE 15
PROPOSED ONE WAY WB CONVERSION
OF BATHGATE ROAD
(WAINSCOTT NORTHWEST ROAD TO GEORGICA DRIVE)
NOT TO SCALE

should be considered is shown in Figure 16.

Widening the southbound approach on Wainscott Northwest Road will accommodate the traffic departing the site that is diverted to Wainscott Northwest Road to make the SB to EB left turns under the safe operation of the existing traffic signal and will negate the need to install a traffic signal on NYS Route 27 at the Reconstructed Old Montauk Highway. Furthermore, the provision of the additional lanes on the southbound approach of Wainscott Northwest Road will help to accommodate the additional truck traffic coming from the Town Industrial Park that continues to develop along Industrial Road.

It should also be noted that the property located in the northwest corner of NYS Route 27 at Wainscott Northwest Road is currently for sale. The property is currently occupied by Wainscott Windows and Walls. The Town of East Hampton should consider the possibility of purchasing this property while it is available for creating a three lane SB approach layout or for future replacement of the traffic signal with a roundabout as proposed in the Hamlet Study Report.

With the prohibition of SB to EB left turns out of Old Montauk Highway onto EB Route 27, Figure 17 present the single lane layout on the SB approach at NYS Route 27 which revises the previously proposed SB lane layout that was shown in Figure 11.

5. Study and Preliminary Design of Roundabouts

The Wainscott Hamlet Report recommended that two roundabouts be constructed on NYS Route 27 at a) Old Montauk Highway and b) Wainscott Northwest Road. The Town of East Hampton and the NYSDOT should initiate a project to study, design and construct a roundabout at these two intersections.

A roundabout at the Reconstructed intersection of Old Montauk Highway would allow traffic to proceed around the roundabout and would negate the need to install a traffic signal at this location.

A roundabout at the intersection of NYS Route 27 at Wainscott Northwest Road would negate the need for a) improvements on the southbound approach and b) the existing traffic signal which would be removed.

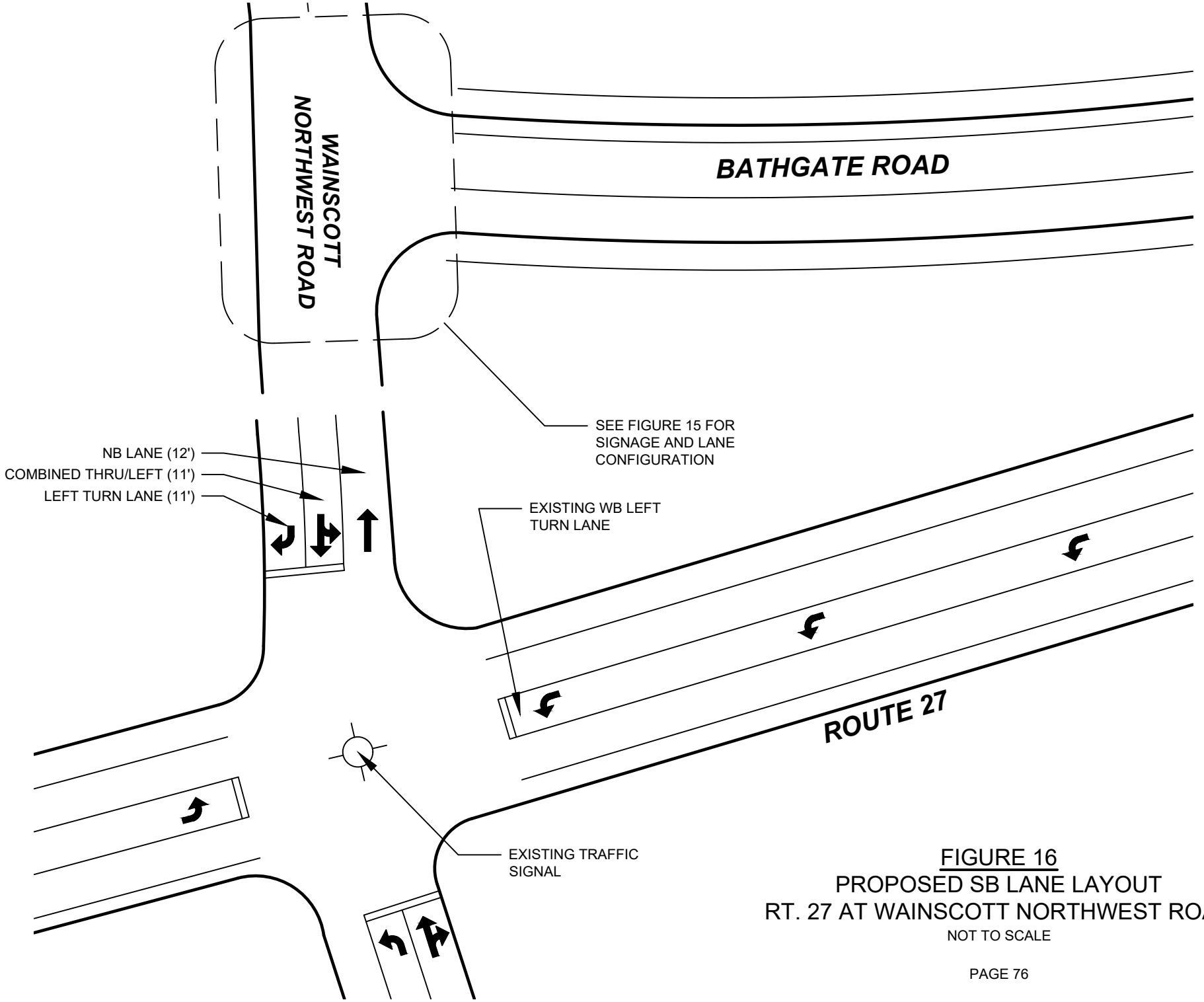


FIGURE 16
PROPOSED SB LANE LAYOUT
RT. 27 AT WAINSCOTT NORTHWEST ROAD
NOT TO SCALE

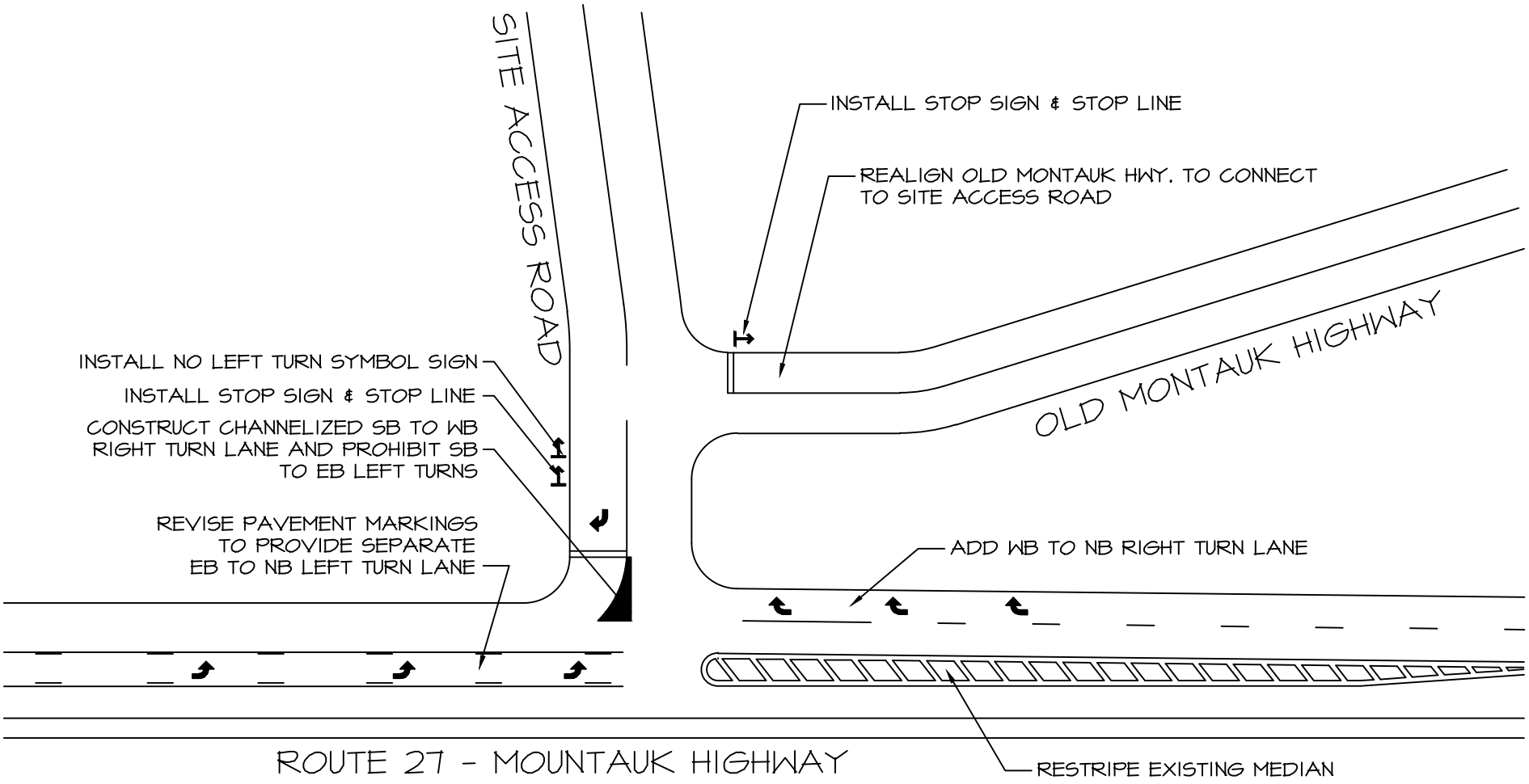


FIGURE 17
PROPOSED SB LANE LAYOUT
RT. 27 AT OLD MONTAUK HIGHWAY
(PROHIBITION OF SB TO EB LEFT TURNS AND NO TRAFFIC SIGNAL)
NOT TO SCALE

CONCLUSIONS

The study and traffic engineering analysis performed indicate that the proposed redevelopment of the Wainscott Commercial Center site into a commercial/industrial park, in conjunction with the recommended roadway modifications, site access plan, and internal roadway network will not have an adverse impact on traffic conditions on the surrounding roadway network in the vicinity of the site.

The proposed redevelopment of the site will result in an increase in traffic flow, particularly along Montauk Highway, but the proposed roadway modifications can adequately accommodate this increased traffic. As a result, the proposed site redevelopment, in conjunction with the roadway modifications recommended, will provide safe traffic operation for the patrons and employees of the development.

The following summary points should be noted:

1. Although the site will generate additional traffic, this traffic can be adequately accommodated by the roadway modifications recommended in this report.

2. The access plan to the site has been designed to adequately provide for the estimated traffic flow on the adjacent roadways so as to assure the public safety and minimize traffic congestion.

3. With the design of the access plan, the internal roadway network and the implementation of the roadway modifications recommended in this report, it is anticipated that the proposed redevelopment will not increase the rate of crashes in the vicinity of the site.

4. Four points of access to the proposed development shall be provided. Each driveway shall be stop controlled with one entry lane and one exit lane.

   The two southerly access points will allow vehicles to gain access to and from Montauk Highway from the three intersections of Montauk Highway at 1) Old Montauk Highway, 2) Georgica Drive and 3) Wainscott Northwest Road.

   The northeasterly access point will be at the northeast corner of the site on Daniel's Hole Road, and will provide two lanes. One lane each will be provided for entering and exiting traffic, with both left and right turns into and out of the site permitted. The access drive will be stop-controlled, and trucks will be prohibited from making left-turns from this driveway due to the existence to the north of the low railroad overpass (9 ft. vertical clearance).

The northwesterly access point onto Wainscott Northwest Road will be located opposite Broad Wood Court and north of the homes on Wainscott NW Road. The driveway will consist of one entry lane and one exit lane. Left turns out of the site driveway will be prohibited for trucks only.

5. In the vicinity of the proposed site, Montauk Highway is essentially flat and no appreciable horizontal curves exist. As a result, no sight distance restrictions occur at the proposed main access points at Wainscott Northwest Road, Georgica Drive, or Old Montauk Highway.

6. In the vicinity of the proposed northeasterly access drive, Daniel's Hole Road has a low railroad trestle which limits sight distance to the north and a sharp horizontal curve which limits sight distance to the south. However, due to the location of the proposed access drive onto Daniel's Hole Road on the back of the curve, sight distance will be maximized and will not pose a significant safety concern.

7. Due to the excellent patrol coverage of the East Hampton Town Police and the proximity of both the Town Police and fire protection services, it should be recognized that excellent emergency services are available to service the site.

8. In order to enhance the flow of traffic in the vicinity of the site, the roadway modifications described in this report should be implemented as well as the site access plan and the internal roadway network.

9. The site generated traffic volumes indicated in this Traffic Impact Study represent a conservative scenario with the entire site being fully developed and occupied. Due to the nature of the proposed land use, generally taking a number of years to reach full build-out, it is likely that this level of development would not occur for many years, if ever. It assumes that the entire site is developed with uses that have a level of activity similar to the Industrial Park land use. However, many possible uses, such as self-storage and other uses not involving direct sales or manufacturing, will likely result in much lower trip generation. Overall, the total trip generation used is likely much higher than would ever occur on the site.

10. The nearest bus route to the proposed site provided by Suffolk County Transit is the S-92 and the 10B which travel on Montauk Highway in front of the site. Because of the proximity of the two

bus routes to the site, which would allow employees and patrons to use the buses to travel to and from the site, it is expected that some of the employees and patrons may utilize the public transportation system. In addition the East Hampton Hamlet Report for Wainscott noted that the addition of a LIRR train station on the north or south side of the nearby railroad tracks would help to provide easy access to and from New York City and it could provide an additional mode of travel for employees working at the Wainscott Commercial Center, which in turn would reduce the number of automobile trips to and from the site. Similarly, the close proximity of the airport north of the site presents another mode of transportation that could be used by employees and executives destined to and from the commercial center site for business and management meetings. However, in this study, no credit was applied for use of public transportation, and the traffic destined to and from the site was based on the use of passenger cars only. However, the use of public transportation by employees and patrons would further reduce the minimal traffic impact and the parking needs.

11. Two other alternative plans of the property that were included in the DEIS were 1) Alternate 1, Reduced Density/Open Space Plan (37 Lots, 1 of which consists of 7.0 A of Open Space), and 2) Alternate 2, Hamlet Plan (29 Lots, 3 of which include 2.17 A for train station, 7.0 A of Open Space, & 14.0 A for Town park).

    It should be noted that the site generated traffic for Alternate One does not include any traffic generation volumes for the Open Space parcel. Also, Alternate Two does not include any traffic generation volumes for the train station, open space and Town park parcels since the exact plans for these parcels for both Alternates 1 and 2 have not been determined at this time.

    Comparing the traffic generated by the two alternate uses with the traffic generated by the proposed site layout of 50 lots using the data from the 9th Edition of the "ITE Trip Generation Manual" indicates that the proposed use generates substantially more traffic during the weekday A.M. and P.M. peak hours as well as the Saturday peak hours: (300 > 105 (Alternate One) and 197 (Alternate Two) in the A.M., 303 > 109 (Alternate One) and 205 (Alternate Two) in the P.M., and 147 > 45 (Alternate One) and 84 (Alternate Two) in the Saturday Peak Hours. Similarly, using data from the most recent 10th Edition of the "ITE Trip Generation Manual" indicates that the proposed use generates substantially more traffic during the weekday A.M. and

P.M. peak hours as well as the Saturday peak hours: 148 > 51 (Alternate One) and 96 (Alternate Two) in the A.M., 151 > 51 (Alternate One) and 96 (Alternate Two) in the P.M., and 153 > 56 (Alternate One) and 106 (Alternate Two) in the Saturday peak hours.

Thus, the proposed use has a greater traffic impact than either of these two other alternate uses. Since Alternates 1 and 2 generate less traffic than the proposed plan, the roadway improvements recommended for the proposed plan will readily mitigate the traffic generated by Alternates 1 and 2 without requiring additional roadway improvements.

However, it should be noted that should the Town of East Hampton decide to acquire portions or all of the property for Public Open Space use, Public Park use and/or a LIRR train station, the individual uses for which the Town determines to provide on each of these locations could result in the need for additional roadway improvements to mitigate the additional site generated traffic for these intended uses.

12. The following roadway improvements should be made:

a. The western end of Old Montauk Highway should be realigned to meet Route 27 at a right angle and the intersection should be signalized. In the event the NYSDOT installs a roundabout at this intersection, the traffic signal installation will not be necessary. A separate SB to WB right turn lane, a separate SB to EB left turn lane and one receiving lane shall be constructed.. The EB approach on Montauk Highway at Old Montauk Highway should be restriped to designate the existing two-way left-turn lane as an exclusive EB to NB left-turn lane on to Old Montauk Highway. The westbound approach of Montauk Highway at Old Montauk Highway should be widened on the north side to provide a separate WB to NB right-turn lane, which shall be full width for sufficient length to allow WB vehicles on Montauk Highway to safely decelerate and turn right without impeding thru vehicle movements. In the event that the traffic signal installation at this intersection is not desired and the alternative plan that negates the need for the signal installation is accepted by the Town and the State, only one southbound lane should be constructed that accommodates SB to WB right turns.

b. Georgica Drive should be reconstructed and restriped to provide one travel lane in each direction, and to sufficiently separate roadway traffic from the parking and loading areas for adjacent buildings.

c. An alternative plan that negates the need for the installation of a traffic signal on NYS Route 27 at the Reconstructed Old Montauk Highway intersection incorporates the following proposed five actions:

1) Motorists Simple Courtesy
A courteous situation that may occur occasionally during heavy traffic flows in both directions of travel on the main road during the summer is when an EB motorist in slow or stop and go traffic sees a gap in the WB traffic flow and motions to the motorist who is waiting to make the left turn out of the side street to proceed with the left turn and get in front of him/her on the EB travel lane. This situation requires no action on the part of the Town, State or applicant. It is mentioned here simply because it occurs at times and would allow a few SB to EB left turns out of the reconstructed Old Montauk Highway.

2) Internal Guide Signing
In order to reduce the Traffic Impact, four access driveways and an internal roadway network shall be constructed. The access plan and the internal roadway network help to distribute traffic flow over several points and reduce overall congestion. An internal signing plan has been designed to guide departing site traffic to each driveway that best suits the needs of the motorists to reach destinations to the east, west, south and north. The signing was also designed to keep truck traffic from using the two southerly access points to travel to the north along Wainscott Northwest Road and to prohibit left turns for trucks out of the northwest access drive to prevent them from traveling to the south along Wainscott Northwest Road past the residential area. Furthermore, the key concept that was incorporated into the internal signing plan is to guide, divert and direct departing traffic to the traffic signal located on NYS Route 27 at Wainscott Northwest Road where SB to EB left turns could be accommodated safely under the operation of the existing traffic signal which in turn could negate the need of a traffic signal on NYS Route 27 at the reconstructed Old Montauk Highway. Route marker assemblies are used to direct departing motorists to the EB and WB directions of NYS Route 27.

3) Bathgate Road Improvements
It is recommended that the operation of Bathgate Road between Georgica Drive and Wainscott Northwest Road be converted to one-way westbound with a parking lane and a sidewalk created on the south side of Bathgate Road so customers of businesses located to the south can park and gain access to these stores. Landscaping could also be added along the north side of Bathgate Road which could serve as an aesthetic buffer to the residences that are located just north of Bathgate Road. The existing roadway could be repaved and restriped with one-way westbound signs erected. These improvements would be beneficial to the businesses for both deliveries and for their customers. The existing southbound to westbound no right turn sign

should be removed on SB Georgica Drive just north of Bathgate Road.

This plan would also serve to guide motorists departing the site to Wainscott Northwest Road and the existing traffic signal at NYS Route 27 where SB to EB left turns could be accommodated under the safe operation of the traffic signal which will help to negate the need for a traffic signal installation on NYS Route 27 at the Reconstructed Old Montauk Highway.

A plan view shows the proposed lane layout of this one way westbound 16 foot wide travel lane with a 13 foot wide parking lane with a nine foot wide sidewalk area on the south side of Bathgate Road along with a 5 foot wide shoulder and a 7 foot wide landscaped area on the north side all within the 34 foot wide pavement and the fifty foot wide R.O.W.

4) Widening of Southbound Approach on Wainscott Northwest Road

The existing signalized intersection of NYS Route 27 at Wainscott Northwest Road has the following lane layouts:

Eastbound NYS Route 27 Approach:	A separate left turn lane and a combined thru/right turn lane
Westbound NYS Route 27 Approach:	A separate left turn lane and a combined thru/right turn lane
NB Wainscott NW Road Approach:	A separate left turn lane and a combined thru/right turn lane
SB Wainscott NW Road Approach:	A combined left turn/thru/right turn lane

The efficiency of the operation of the traffic signal should be enhanced by widening the roadway and creating additional turning lanes on the southbound intersection approach on Wainscott Northwest Road. The creation of additional turning lanes on the southbound intersection approach will require less green time to be assigned to the side street and permit this reduced time to be added back onto NYS Route 27 that will enhance traffic flow on NYS Route 27.

Widening the southbound approach on Wainscott Northwest Road will accommodate the traffic departing the site that is diverted to Wainscott Northwest Road to make the SB to EB left turns under the safe operation of the existing traffic signal and will negate the need to install a traffic signal on NYS Route 27 at the Reconstructed Old Montauk Highway. Furthermore, the provision of the additional lanes on the southbound approach of Wainscott Northwest Road will help to accommodate the additional truck traffic coming from the Town Industrial Park that continues to develop along Industrial Road.

It should also be noted that the property located in the northwest corner of NYS Route 27 at Wainscott Northwest Road is currently for sale. The property is currently occupied by

Wainscott Windows and Walls. The Town of East Hampton should consider the possibility of purchasing this property while it is available for creating a three lane SB approach layout or for future replacement of the traffic signal with a roundabout as proposed in the Hamlet Study Report.

With this alternative that negates the need for the installation of a traffic signal on Route 27 at the reconstructed Old Montauk Highway, SB to EB left turns will be prohibited and a single SB lane will be provided for SB to WB right turns onto WB Route 27.

5) Study and Preliminary Design of Roundabouts

The Wainscott Hamlet Report recommended that two roundabouts be constructed on NYS Route 27 at a) Old Montauk Highway and b) Wainscott Northwest Road. The Town of East Hampton and the NYSDOT should initiate a project to study, design and construct a roundabout at these two intersections.

A roundabout at the Reconstructed intersection of Old Montauk Highway would allow traffic to proceed around the roundabout and would negate the need to install a traffic signal at this location.

A roundabout at the intersection of NYS Route 27 at Wainscott Northwest Road would negate the need for a) improvements on the southbound approach and b) the existing traffic signal which would be removed.

Based on traffic engineering considerations, it is recommended that the proposed redevelopment be approved. The developer is prepared to work with the Town, NYSDOT and community as the project progresses.

Montauk Highway
(NYS Route 27)
At
Georgica Drive
(Site SW Access Road)

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Eastbound to Northbound Left Turn From Route 27. onto Georgica Drive	--	--	0.04	N.A.	N.A.	10.3	N.A.	A	B
Southbound Georgica Drive	N.A.	N.A.	0.03	N.A.	N.A.	17.0	N.A.	C	C

Table A
Summary of Unsignalized Intersection Capacity Analyses Results
Montauk Highway (Route 27) at Georgica Drive (Site SW Access Road)
AM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Eastbound to Northbound Left Turn From Route 27 onto Georgica Drive	N.A. --	N.A. --	0.01	N.A.	9.0	9.9	N.A.	N.A.	A
Southbound Georgica Drive	N.A. --	N.A. --	0.15	N.A.	N.A.	17.7	N.A.	N.A.	C

Table A (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Montauk Highway (Route 27) at Georgica Drive (Site SW Access Road)
PM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Eastbound to Northbound Left Turn From Route 27 onto Georgica Drive	N.A.	N.A.	0.01	N.A.	N.A.	10.1	N.A.	N.A.	B
Southbound Georgica Drive	N.A.	N.A.	0.07	N.A.	N.A.	17.4	N.A.	N.A.	C

Table A (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Montauk Highway (Route 27) at Georgica Drive (Site SW Access Road)
Saturday Peak Hour Conditions

Wainscott Northwest Road
At
Broad Wood Court /
Site NW Access Road
(Gate Drive)

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Southbound to Eastbound Left Turn From Wainscott Northwest Road onto NW Site Driveway (Gate Drive)	N.A.	N.A.	0.03	N.A.	N.A.	7.6	N.A.	N.A.	A
Northbound Left Turn from Wainscott Northwest Road onto Broad Wood Court	--	--	0.00	N.A.	N.A.	7.6	--	--	A
Westbound from Gate Drive	N.A.	N.A.	0.02	N.A.	N.A.	10.1	N.A.	N.A.	B
Eastbound from Broad Wood Court	--	--	0.00	--	--	10.0	--	--	A

Table B
Summary of Unsignalized Intersection Capacity Analyses Results
Wainscott Northwest Road at Broad Wood Court / Site NW Access Road (Gate Drive)
AM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Southbound to Eastbound Left Turn From Wainscott Northwest Road onto NW Site Driveway (Gate Drive)	N.A.	N.A.	0.04	N.A.	N.A.	8.4	N.A.	N.A.	A
Northbound Left Turn from Wainscott Northwest Road onto BroadWood Court	--	--	0.00	N.A.	N.A.	7.6	--	--	A
Westbound from Gate Drive	N.A.	N.A.	0.03	N.A.	N.A.	12.8	N.A.	N.A.	B
Eastbound from BroadWood Court	--	--	0.01	--	--	11.3	--	--	B

Table B (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Wainscott Northwest Road at Broad Wood Court / Site NW Access Road (Gate Drive)
PM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Southbound to Eastbound Left Turn From Wainscott Northwest Road onto NW Site Driveway (Gate Drive)	N.A.	N.A.	0.01	N.A.	N.A.	7.6	N.A.	N.A.	A
Northbound Left Turn from Wainscott Northwest Road onto BroadWood Court	--	--	0.00			9.9	--	--	A
Westbound from Gate Drive	N.A.	N.A.	0.03	N.A.	N.A.	9.9	N.A.	N.A.	A
Eastbound from Broad Wood Court	--	--	0.00	--	--	9.9	--	--	A

Table B (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Wainscott Northwest Road at Broad Wood Court / Site NW Access Road (Gate Drive)
Saturday Peak Hour Conditions

Wainscott Northwest Road
At
Industrial Road

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Westbound to Southbound Left Turn From Industrial Road. Onto Wainscott Northwest Road	0.06	0.06	0.07	7.4	7.4	7.4	A	A	A
Northbound Wainscott Northwest Road	0.10	0.10	0.12	9.1	0.10	9.2	A	A	A

Table C
Summary of Unsignalized Intersection Capacity Analyses Results
Wainscott Northwest Road at Industrial Road
AM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Westbound to Southbound Left Turn From Industrial Road. Onto Wainscott Northwest Road	0.08	0.09	0.10	7.5	7.5	7.6	A	A	A
Northbound Wainscott Northwest Road	0.13	0.14	0.14	9.2	9.3	9.4	A	A	A

Table C (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Wainscott Northwest Road at Industrial Road
PM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Westbound to Southbound Left Turn From Industrial Road. Onto Wainscott Northwest Road	0.07	0.07	0.08	7.4	7.5	7.5	A	A	A
Northbound Wainscott Northwest Road	0.13	0.14	0.15	9.2	9.2	9.3	A	A	A

Table C (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Wainscott Northwest Road at Industrial Road
Saturday Peak Hour Conditions

Industrial Road
At
Daniel’s Hole Road

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Northbound to Westbound Left Turn from Daniel's Hole Road onto Industrial Road	0.03	0.03	0.03	7.5	7.5	7.7	A	A	A
Eastbound Industrial Road	0.11	0.12	0.14	10.2	10.3	10.7	B	B	B

Table D
Summary of Unsignalized Intersection Capacity Analyses Results
Industrial Road at Daniel's Hole Road
AM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Northbound to Westbound Left Turn from Daniel's Hole Road onto Industrial Road	0.03	0.03	0.03	7.7	7.7	7.7	A	A	A
Eastbound Industrial Road	0.19	0.20	0.26	11.2	11.4	12.0	B	B	B

Table D (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Industrial Road at Daniel's Hole Road
PM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Northbound to Westbound Left Turn at Daniel's Hole Road	0.01	0.01	0.01	7.6	7.6	7.6	A	A	A
Eastbound Industrial Road	0.16	0.17	0.19	10.4	10.6	10.7	B	B	B

Table D (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Industrial Road at Daniel's Hole Road
Saturday Peak Hour Conditions

Daniel's Hole Road
at
Site NE Access Road
(Gate Drive)

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Eastbound Site Access Road	NA	NA	0.00	NA	NA	9.2	NA	NA	A
Northbound to Westbound Left Turn from Daniel's Hole Road onto NE Site Access Road	NA	NA	0.00	NA	NA	7.3	NA	NA	A

Table E
Summary of Unsignalized Intersection Capacity Analyses Results
Daniel's Hole Road at Site NE Access Road (Gate Drive)
AM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Eastbound Site Access Road	NA	NA	0.02	NA	NA	9.4	NA	NA	A
Northbound to Westbound Left Turn from Daniel's Hole Road onto Site Access Road	NA	NA	0.0	NA	NA	7.4	NA	NA	A

Table E (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Daniel's Hole Road at Site NE Access Road (Gate Drive)
PM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Eastbound Site Access Road	NA	NA	0.01	NA	NA	9.4	NA	NA	A
Northbound to Westbound Left Turn from Daniel's Hole Road onto Site Access Road	NA	NA	0.00	NA	NA	7.4	NA	NA	A

Table E (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Daniel's Hole Road at Site NE Access Road (Gate Drive)
Saturday Peak Hour Conditions

Route 27
at
Reconstructed Old Montauk Highway / Site SE Access Road

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Eastbound to Northbound Left Turn from Route 27 onto Reconstructed Old Montauk Highway	0.00	0.00	0.09	9.8	10.0	11.1	A	B	B
Southbound Reconstructed Old Montauk Highway	0.04	0.04	0.43	29.2	32.1	91.1	D	D	F

Table F
Summary of Unsignalized Intersection Capacity Analyses Results
Montauk Highway (Route 27) at Reconstructed Old Montauk Highway / Site SE Access Road
AM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Eastbound to Northbound Left Turn from Route 27 onto Reconstructed Old Montauk Highway	0.01	0.01	0.03	9.7	9.9	10.1	A	A	B
Southbound Reconstructed Old Montauk Highway	0.01	0.01	1.48	15.3	15.9	347.1	C	C	F

Table F (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Montauk Highway (Route 27) at Reconstructed Old Montauk Highway / Site SE Access Road
PM Peak Hour Conditions

Location / Movement	v/c Ratio			Control Delay (sec)			Level of Service		
	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021	Existing 2019	No Build 2021	Build 2021
Eastbound to Northbound Left Turn from Route 27 onto Reconstructed Old Montauk Highway	0.05	0.05	0.07	10.2	10.4	10.6	B	B	B
Southbound Reconstructed Old Montauk Highway	0.22	0.25	1.02	23.7	26.0	170.5	C	D	F

Table F (cont.)
Summary of Unsignalized Intersection Capacity Analyses Results
Montauk Highway (Route 27) at Reconstructed Old Montauk Highway / Site SE Access Road
Saturday Peak Hour Conditions

Montauk Highway
at
Wainscott Northwest Road

Signalized Intersections Level of Service – A.M. Peak Hour								
Intersection	**Movement**	**Lane Group**	**Existing 2019**		**No Build 2021**		**Build 2021**	
			Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
Montauk Highway (Rt. 27) at Wainscott Northwest Road	EB	Left	21.0	C	25.0	C	28.5	C
		Thru/Right	10.8	B	12.2	B	14.6	B
		Approach	11.7	B	18.3	B	15.9	B
	WB	Left	16.6	B	19.2	B	24.1	C
		Thru/Right	11.3	B	12.7	B	13.6	B
		Approach	11.3	B	12.8	B	13.7	B
	NB	Left	56.9	E	57.0	F	57.2	E
		Thru/Right	41.8	D	41.0	D	40.5	D
		Approach	45.6	D	45.1	D	44.5	D
	SB	Left/Thru/Right	53.1	D	53.7	D	54.4	D
		Approach	53.1	D	53.7	D	54.4	D
	Overall		16.9	B	18.3	B	19.8	B

Table G
Summary of Signalized Intersection Capacity Analysis Results
Montauk Highway at Wainscott Northwest Road

Signalized Intersections Level of Service – P.M. Peak Hour								
Intersection	**Movement**	**Lane Group**	**Existing 2019**		**No Build 2021**		**Build 2021**	
			Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
Montauk Highway (Rt. 27) at Wainscott Northwest Road	EB	Left	13.0	B	15.1	B	22.2	C
		Thru/Right	8.4	A	9.4	A	11.4	B
		Approach	8.6	A	9.6	A	11.9	B
	WB	Left	13.7	B	16.0	B	19.9	B
		Thru/Right	7.9	A	8.9	A	12.0	B
		Approach	8.2	A	9.1	A	12.3	B
	NB	Left	56.3	E	56.3	E	56.5	E
		Thru/Right	47.4	D	46.9	D	44.5	D
		Approach	49.6	D	49.2	D	47.4	D
	SB	Left/Thru/Right	50.8	D	50.5	D	50.8	D
		Approach	50.8	D	50.5	D	50.8	D
	Overall		13.2	B	14.1	B	16.7	B

Table G (cont.)
Summary of Signalized Intersection Capacity Analysis Results
Montauk Highway at Wainscott Northwest Road

Signalized Intersections Level of Service – Saturday Peak Hour								
Intersection	**Movement**	**Lane Group**	**Existing 2019**		**No Build 2021**		**Build 2021**	
			Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
Montauk Highway (Rt. 27) at Wainscott Northwest Road	EB	Left	21.4	C	23.7	C	25.9	C
		Thru/Right	14.2	B	15.5	B	16.0	B
		Approach	14.8	B	16.1	B	16.7	B
	WB	Left	24.2	C	27.3	C	28.5	C
		Thru/Right	12.2	B	13.0	B	13.7	B
		Approach	12.7	B	13.6	B	14.3	B
	NB	Left	60.9	E	73.0	E	73.1	E
		Thru/Right	40.4	D	40.5	D	40.5	D
		Approach	46.6	D	50.3	D	50.3	D
	SB	Left/Thru/Right	61.8	E	70.7	E	82.9	F
		Approach	61.8	E	70.7	E	82.9	F
	Overall		21.0	C	23.2	C	25.3	C

Table G (cont.)
Summary of Signalized Intersection Capacity Analysis Results
Montauk Highway at Wainscott Northwest Road

Montauk Highway
at
Reconstructed Old Montauk Highway / Proposed Site SE Access Road

Signalized Intersections Level of Service – A.M. Peak Hour				
Intersection	**Movement**	**Lane Group**	**Build 2021**	
			Delay	**LOS**
Montauk Highway (Rt. 27) at Reconstructed Old Montauk Highway / Proposed Site SE Access Road	EB	Left	6.9	A
		Thru	3.6	A
		Approach	3.8	A
	WB			
		Thru/Right	4.4	A
		Approach	4.4	A
	SB	Left	58.3	E
		Right	57.2	E
		Approach	57.9	E
	Overall		4.9	A

Table H
Summary of Signalized Intersection Capacity Analysis Results
Montauk Highway at Reconstructed Old Montauk Highway/Proposed Site SE Access Road

Note: For existing and No Build Traffic Conditions, see Table F,
Summary of Unsignalized Intersection Capacity Analysis Results

Signalized Intersections Level of Service – P.M. Peak Hour				
Intersection	**Movement**	**Lane Group**	**Build 2021**	
			Delay	**LOS**
Montauk Highway (Rt. 27) at Reconstructed Old Montauk Highway / Proposed Site SE Access Road	EB	Left	7.0	A
		Thru	5.3	A
		Approach	5.4	A
	WB			
		Thru/Right	5.0	A
		Approach	5.0	A
	SB	Left	58.4	E
		Right	54.0	D
		Approach	57.2	E
	Overall		8.5	A

Table H (cont.)
Summary of Signalized Intersection Capacity Analysis Results
Montauk Highway at Reconstructed Old Montauk Highway/Proposed Site SE Access Road

Note: For existing and No Build Traffic Conditions, see Table F,
Summary of Unsignalized Intersection Capacity Analysis Results

Signalized Intersections Level of Service – Saturday Peak Hour				
Intersection	**Movement**	**Lane Group**	**Build 2021**	
			Delay	**LOS**
Montauk Highway (Rt. 27) at Reconstructed Old Montauk Highway / Proposed Site SE Access Road	EB	Left	7.8	A
		Thru	5.2	A
		Approach	5.3	A
	WB			
		Thru/Right	5.0	A
		Approach	5.0	A
	SB	Left	55.6	E
		Right	59.7	E
		Approach	58.1	E
	Overall		7.8	A

Table H (cont.)
Summary of Signalized Intersection Capacity Analysis Results
Montauk Highway at Reconstructed Old Montauk Highway/Proposed Site SE Access Road

Note: For existing and No Build Traffic Conditions, see Table F,
Summary of Unsignalized Intersection Capacity Analysis Results

Intersection Capacity Analyses Results

Montauk Highway
(NYS Route 27)
At
Georgica Drive
(Site SW Access Road)

Weekday AM Peak Hour

HCS7 Two-Way Stop-Control Report

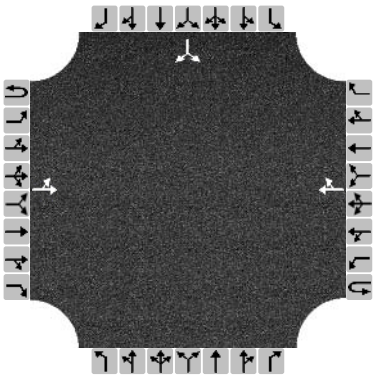
General Information

Analyst	DR
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	AM Build
Intersection Orientation	East-West
Project Description	Wainscott Commercial Center

Site Information

Intersection	Mtk Hwy @ Georgica Dr
Jurisdiction	East Hampton
East/West Street	Montauk Highway
North/South Street	Georgica Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		25	887				873	25						0		9
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		27													10	
Capacity, c (veh/h)		702													309	
v/c Ratio		0.04													0.03	
95% Queue Length, Q_{95} (veh)		0.1													0.1	
Control Delay (s/veh)		10.3													17.0	
Level of Service, LOS		B													C	
Approach Delay (s/veh)	1.1												17.0			
Approach LOS													C			

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Weekday PM Peak Hour

HCS7 Two-Way Stop-Control Report

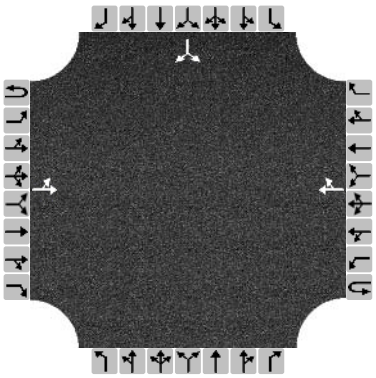
General Information

Analyst	DR
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	PM Build
Intersection Orientation	East-West
Project Description	Wainscott Commercial Center

Site Information

Intersection	Mtk Hwy @ Georgica Dr
Jurisdiction	East Hampton
East/West Street	Montauk Highway
North/South Street	Georgica Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		5	881				829	5						0		47
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		5													51	
Capacity, c (veh/h)		746													334	
v/c Ratio		0.01													0.15	
95% Queue Length, Q_{95} (veh)		0.0													0.5	
Control Delay (s/veh)		9.9													17.7	
Level of Service, LOS		A													C	
Approach Delay (s/veh)	0.2												17.7			
Approach LOS													C			

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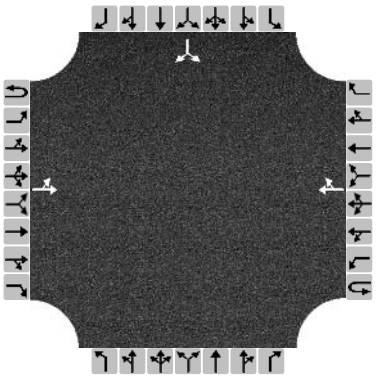
Saturday Peak Hour

HCS7 Two-Way Stop-Control Report

General Information

Analyst	DR	Intersection	Mtk Hwy @ Georgica Dr
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Montauk Highway
Analysis Year	2021	North/South Street	Georgica Drive
Time Analyzed	SAT Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		5	933				881	5						0		19
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		5													21	
Capacity, c (veh/h)		710													310	
v/c Ratio		0.01													0.07	
95% Queue Length, Q_{95} (veh)		0.0													0.2	
Control Delay (s/veh)		10.1													17.4	
Level of Service, LOS		B													C	
Approach Delay (s/veh)	0.2												17.4			
Approach LOS													C			

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Wainscott Northwest Road
At
Industrial Road

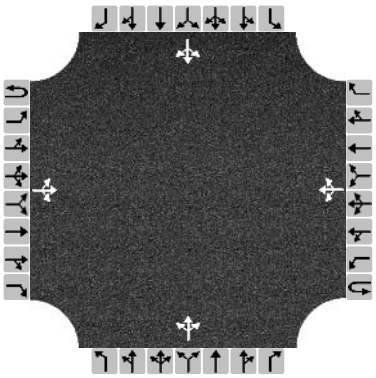
Weekday AM Peak Hour

HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Industrial Rd @ Wainscott
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Wainscott NW Road
Analysis Year	2019	North/South Street	Industrial Road
Time Analyzed	AM Existing	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume, V (veh/h)		0	13	14		86	11	2		14	1	70		0	0	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				93					92				0	
Capacity, c (veh/h)		1596				1576					964				0	
v/c Ratio		0.00				0.06					0.10					
95% Queue Length, Q_{95} (veh)		0.0				0.2					0.3					
Control Delay (s/veh)		7.3				7.4					9.1				5.0	
Level of Service, LOS		A				A					A				A	
Approach Delay (s/veh)	0.0				6.5				9.1				5.0			
Approach LOS									A				A			

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HCS7 Two-Way Stop-Control Report

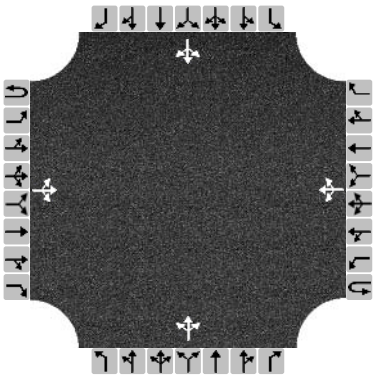
General Information

Analyst	CC
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	AM No Build
Intersection Orientation	East-West
Project Description	Wainscott Commercial Center

Site Information

Intersection	Industrial Rd @ Wainscott
Jurisdiction	East Hampton
East/West Street	Wainscott NW Road
North/South Street	Industrial Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume, V (veh/h)		0	14	15		90	12	2		15	1	74		0	0	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				98					98				0	
Capacity, c (veh/h)		1594				1572					958				0	
v/c Ratio		0.00				0.06					0.10					
95% Queue Length, Q_{95} (veh)		0.0				0.2					0.3					
Control Delay (s/veh)		7.3				7.4					9.2				5.0	
Level of Service, LOS		A				A					A				A	
Approach Delay (s/veh)	0.0				6.5				9.2				5.0			
Approach LOS									A				A			

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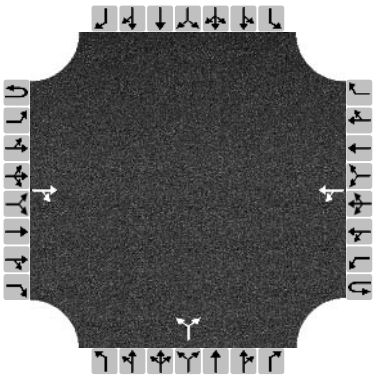
HCS7 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	DR	Intersection	Industrial Rd @ Wainscott
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Industrial Road
Analysis Year	2021	North/South Street	Wainscott NW Road
Time Analyzed	AM Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume, V (veh/h)			14	15		94	12			15		94				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						102					118					
Capacity, c (veh/h)						1572					981					
v/c Ratio						0.07					0.12					
95% Queue Length, Q_{95} (veh)						0.2					0.4					
Control Delay (s/veh)						7.4					9.2					
Level of Service, LOS						A					A					
Approach Delay (s/veh)					6.7				9.2							
Approach LOS									A							

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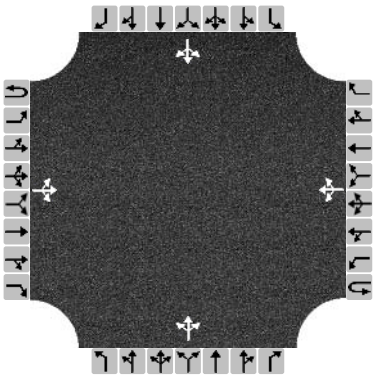
Weekday PM Peak Hour

HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Industrial Rd @ Wainscott
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Wainscott NW Road
Analysis Year	2019	North/South Street	Industrial Road
Time Analyzed	PM Existing	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume, V (veh/h)		0	9	19		123	23	2		8	3	107		1	2	1
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				134					128				4	
Capacity, c (veh/h)		1578				1574					979				594	
v/c Ratio		0.00				0.08					0.13				0.01	
95% Queue Length, Q_{95} (veh)		0.0				0.3					0.5				0.0	
Control Delay (s/veh)		7.3				7.5					9.2				11.1	
Level of Service, LOS		A				A					A				B	
Approach Delay (s/veh)	0.0				6.3				9.2				11.1			
Approach LOS									A				B			

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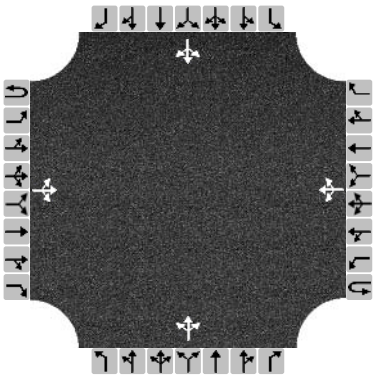
HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Industrial Rd @ Wainscott
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Wainscott NW Road
Analysis Year	2019	North/South Street	Industrial Road
Time Analyzed	PM No Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume, V (veh/h)		0	9	20		129	24	2		8	3	112		1	2	1
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				140					134				4	
Capacity, c (veh/h)		1577				1572					977				580	
v/c Ratio		0.00				0.09					0.14				0.01	
95% Queue Length, Q_{95} (veh)		0.0				0.3					0.5				0.0	
Control Delay (s/veh)		7.3				7.5					9.3				11.3	
Level of Service, LOS		A				A					A				B	
Approach Delay (s/veh)	0.0				6.4				9.3				11.3			
Approach LOS									A				B			

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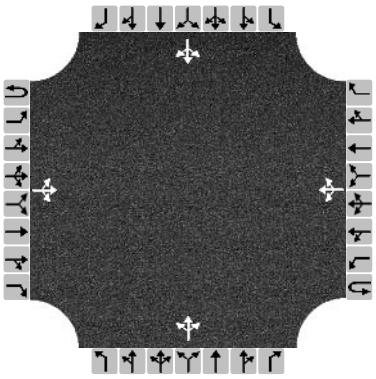
HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Industrial Rd @ Wainscott
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Wainscott NW Road
Analysis Year	2021	North/South Street	Industrial Road
Time Analyzed	PM Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume, V (veh/h)		0	9	20		149	24	39		8	3	116		9	2	1
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				162					138				13	
Capacity, c (veh/h)		1525				1572					962				444	
v/c Ratio		0.00				0.10					0.14				0.03	
95% Queue Length, Q_{95} (veh)		0.0				0.3					0.5				0.1	
Control Delay (s/veh)		7.4				7.6					9.4				13.4	
Level of Service, LOS		A				A					A				B	
Approach Delay (s/veh)	0.0				5.6				9.4				13.4			
Approach LOS									A				B			

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Saturday Peak Hour

HCS7 Two-Way Stop-Control Report

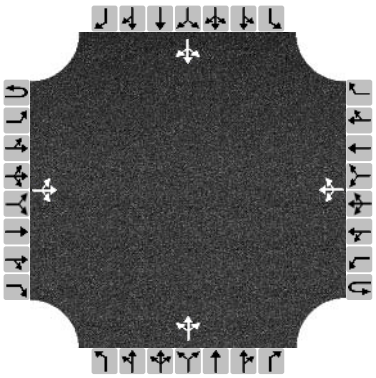
General Information

Analyst	CC
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2019
Time Analyzed	SAT Existing
Intersection Orientation	East-West
Project Description	Wainscott Commercial Center

Site Information

Intersection	Industrial Rd @ Wainscott
Jurisdiction	East Hampton
East/West Street	Wainscott NW Road
North/South Street	Industrial Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume, V (veh/h)		0	12	7		103	5	1		8	4	110		1	1	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				112					133				2	
Capacity, c (veh/h)		1605				1586					995				567	
v/c Ratio		0.00				0.07					0.13				0.00	
95% Queue Length, Q_{95} (veh)		0.0				0.2					0.5				0.0	
Control Delay (s/veh)		7.2				7.4					9.2				11.4	
Level of Service, LOS		A				A					A				B	
Approach Delay (s/veh)	0.0				7.1				9.2				11.4			
Approach LOS									A				B			

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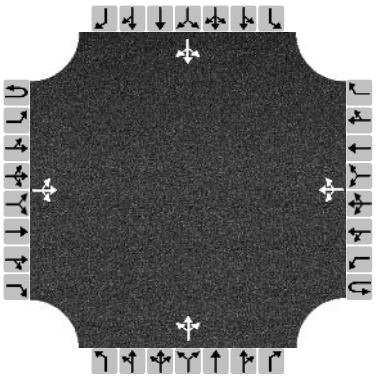
HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Industrial Rd @ Wainscott
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Wainscott NW Road
Analysis Year	2021	North/South Street	Industrial Road
Time Analyzed	SAT No Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume, V (veh/h)		0	13	7		108	5	1		8	4	116		1	1	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				117					139				2	
Capacity, c (veh/h)		1605				1585					994				553	
v/c Ratio		0.00				0.07					0.14				0.00	
95% Queue Length, Q_{95} (veh)		0.0				0.2					0.5				0.0	
Control Delay (s/veh)		7.2				7.5					9.2				11.5	
Level of Service, LOS		A				A					A				B	
Approach Delay (s/veh)	0.0				7.1				9.2				11.5			
Approach LOS									A				B			

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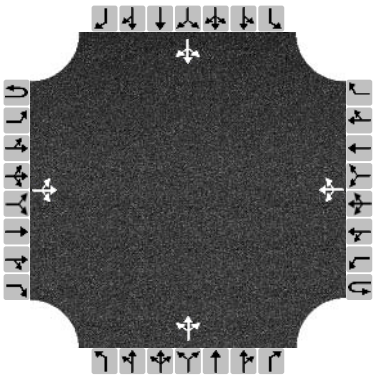
HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Industrial Rd @ Wainscott
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Wainscott NW Road
Analysis Year	2021	North/South Street	Industrial Road
Time Analyzed	SAT Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume, V (veh/h)		0	13	7		116	5	16		8	4	120		8	1	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				126					143				10	
Capacity, c (veh/h)		1584				1585					989				499	
v/c Ratio		0.00				0.08					0.15				0.02	
95% Queue Length, Q_{95} (veh)		0.0				0.3					0.5				0.1	
Control Delay (s/veh)		7.3				7.5					9.3				12.4	
Level of Service, LOS		A				A					A				B	
Approach Delay (s/veh)	0.0				6.4				9.3				12.4			
Approach LOS									A				B			

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Industrial Road
at
Daniel’s Hole Road

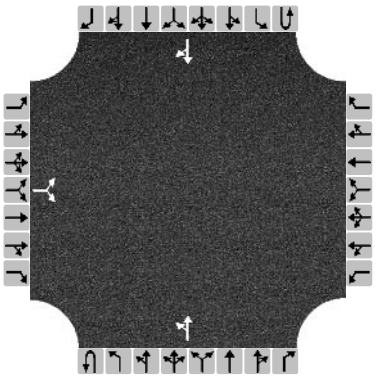
Weekday AM Peak Hour

HCS7 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	CC	Intersection	Ind Rd @ Daniels Hole Rd
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Industrial Road
Analysis Year	2019	North/South Street	Daniels Hole Road
Time Analyzed	AM Existing	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		69		12						41	54				20	78
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			88							45						
Capacity, c (veh/h)			779							1476						
v/c Ratio			0.11							0.03						
95% Queue Length, Q_{95} (veh)			0.4							0.1						
Control Delay (s/veh)			10.2							7.5						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	10.2								3.4							
Approach LOS	B															

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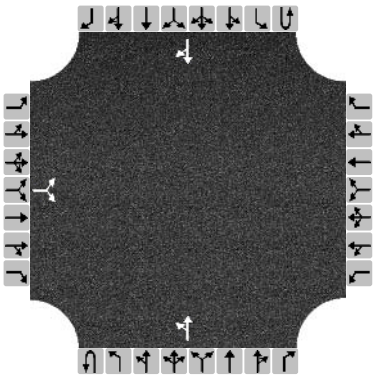
HCS7 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	CC	Intersection	Ind Rd @ Daniels Hole Rd
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Industrial Road
Analysis Year	2021	North/South Street	Daniels Hole Road
Time Analyzed	AM No Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		72		13						43	57				21	82
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			92							47						
Capacity, c (veh/h)			768							1470						
v/c Ratio			0.12							0.03						
95% Queue Length, Q_{95} (veh)			0.4							0.1						
Control Delay (s/veh)			10.3							7.5						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	10.3								3.4							
Approach LOS	B															

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HCS7 Two-Way Stop-Control Report

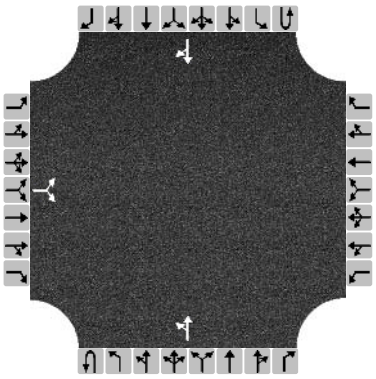
General Information

Analyst	CC
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	AM Build
Intersection Orientation	North-South
Project Description	Wainscott Commercial Center

Site Information

Intersection	Ind Rd @ Daniels Hole Rd
Jurisdiction	East Hampton
East/West Street	Industrial Road
North/South Street	Daniels Hole Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		79		13						43	57				34	120
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			100							47						
Capacity, c (veh/h)			731							1403						
v/c Ratio			0.14							0.03						
95% Queue Length, Q_{95} (veh)			0.5							0.1						
Control Delay (s/veh)			10.7							7.7						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	10.7								3.4							
Approach LOS	B															

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Weekday PM Peak Hour

HCS7 Two-Way Stop-Control Report

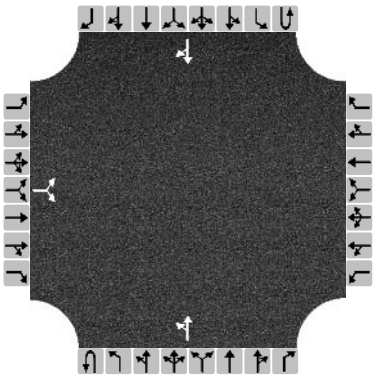
General Information

Analyst	CC
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2019
Time Analyzed	PM Existing
Intersection Orientation	North-South
Project Description	Wainscott Commercial Center

Site Information

Intersection	Ind Rd @ Daniels Hole Rd
Jurisdiction	East Hampton
East/West Street	Industrial Road
North/South Street	Daniels Hole Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		121		5						41	41				61	96
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			137							45						
Capacity, c (veh/h)			717							1398						
v/c Ratio			0.19							0.03						
95% Queue Length, Q_{95} (veh)			0.7							0.1						
Control Delay (s/veh)			11.2							7.7						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	11.2								4.0							
Approach LOS	B															

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HCS7 Two-Way Stop-Control Report

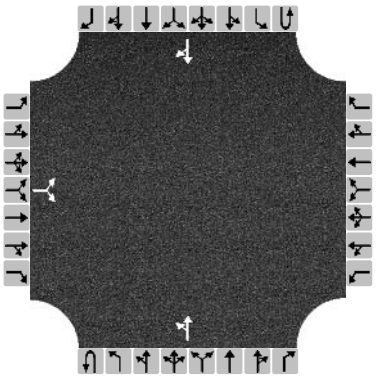
General Information

Analyst	CC
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	PM No Build
Intersection Orientation	North-South
Project Description	Wainscott Commercial Center

Site Information

Intersection	Ind Rd @ Daniels Hole Rd
Jurisdiction	East Hampton
East/West Street	Industrial Road
North/South Street	Daniels Hole Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		127		5						43	43				64	101
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			143							47						
Capacity, c (veh/h)			704							1389						
v/c Ratio			0.20							0.03						
95% Queue Length, Q_{95} (veh)			0.8							0.1						
Control Delay (s/veh)			11.4							7.7						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	11.4								4.0							
Approach LOS	B															

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HCS7 Two-Way Stop-Control Report

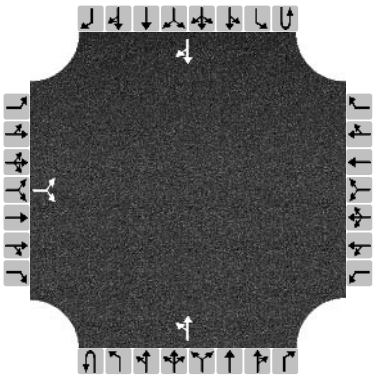
General Information

Analyst	CC
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	PM Build
Intersection Orientation	North-South
Project Description	Wainscott Commercial Center

Site Information

Intersection	Ind Rd @ Daniels Hole Rd
Jurisdiction	East Hampton
East/West Street	Industrial Road
North/South Street	Daniels Hole Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		164		5						43	43				67	109
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			184							47						
Capacity, c (veh/h)			696							1375						
v/c Ratio			0.26							0.03						
95% Queue Length, Q_{95} (veh)			1.1							0.1						
Control Delay (s/veh)			12.0							7.7						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	12.0								4.0							
Approach LOS	B															

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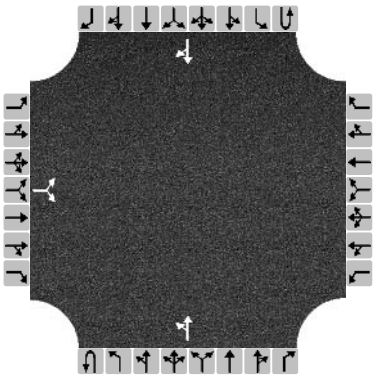
Saturday Peak Hour

HCS7 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	CC	Intersection	Ind Rd @ Daniels Hole Rd
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Industrial Road
Analysis Year	2019	North/South Street	Daniels Hole Road
Time Analyzed	SAT Existing	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		98		18						9	58				67	101
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			126							10						
Capacity, c (veh/h)			790							1384						
v/c Ratio			0.16							0.01						
95% Queue Length, Q_{95} (veh)			0.6							0.0						
Control Delay (s/veh)			10.4							7.6						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	10.4								1.1							
Approach LOS	B															

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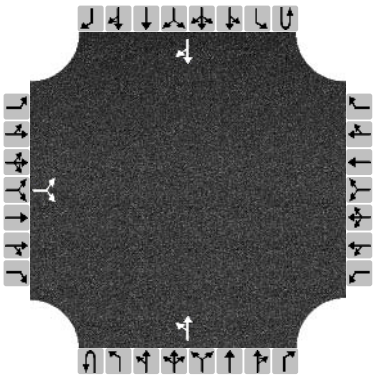
HCS7 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	CC	Intersection	Ind Rd @ Daniels Hole Rd
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Industrial Road
Analysis Year	2021	North/South Street	Daniels Hole Road
Time Analyzed	SAT No Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		103		19						9	61				70	106
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			133							10						
Capacity, c (veh/h)			780							1375						
v/c Ratio			0.17							0.01						
95% Queue Length, Q_{95} (veh)			0.6							0.0						
Control Delay (s/veh)			10.6							7.6						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	10.6								1.0							
Approach LOS	B															

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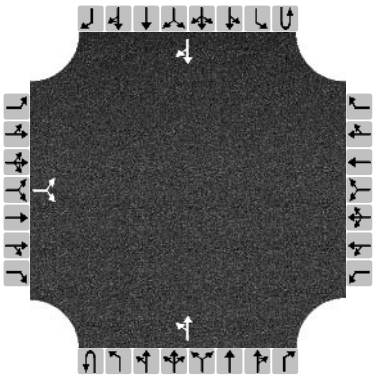
HCS7 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	CC	Intersection	Ind Rd @ Daniels Hole Rd
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Industrial Road
Analysis Year	2021	North/South Street	Daniels Hole Road
Time Analyzed	SAT Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		118		19						9	61				72	107
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			149							10						
Capacity, c (veh/h)			776							1370						
v/c Ratio			0.19							0.01						
95% Queue Length, Q_{95} (veh)			0.7							0.0						
Control Delay (s/veh)			10.7							7.6						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	10.7								1.0							
Approach LOS	B															

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Daniel's Hole Road
at
Gate Drive
(Site NE Access Road)

Weekday AM Peak Hour

HCS7 Two-Way Stop-Control Report

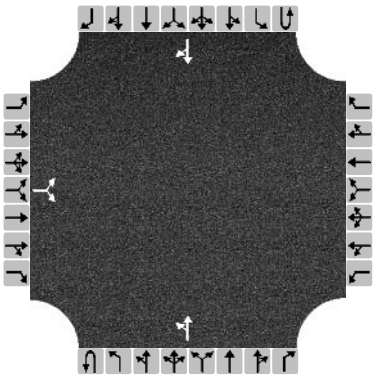
General Information

Analyst	DR
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	AM Build
Intersection Orientation	North-South
Project Description	Wainscott Commercial Center

Site Information

Intersection	Gate Dr @ Daniels Hole Rd
Jurisdiction	East Hampton
East/West Street	Gate Drive
North/South Street	Daniel's Hole Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		2		0						0	100				17	13
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			2							0						
Capacity, c (veh/h)			857							1570						
v/c Ratio			0.00							0.00						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			9.2							7.3						
Level of Service, LOS			A							A						
Approach Delay (s/veh)	9.2								0.0							
Approach LOS	A															

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Weekday PM Peak Hour

HCS7 Two-Way Stop-Control Report

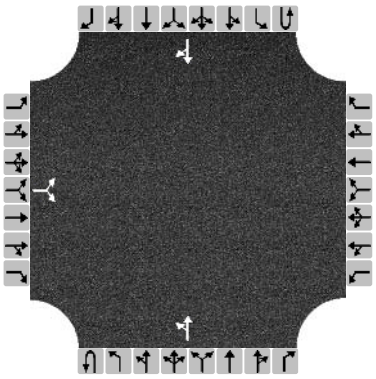
General Information

Analyst	DR
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	PM Build
Intersection Orientation	North-South
Project Description	Wainscott Commercial Center

Site Information

Intersection	Gate Dr @ Daniels Hole Rd
Jurisdiction	East Hampton
East/West Street	Gate Drive
North/South Street	Daniel's Hole Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		12		0						0	86				62	3
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			13							0						
Capacity, c (veh/h)			826							1521						
v/c Ratio			0.02							0.00						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			9.4							7.4						
Level of Service, LOS			A							A						
Approach Delay (s/veh)	9.4								0.0							
Approach LOS	A															

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Saturday Peak Hour

HCS7 Two-Way Stop-Control Report

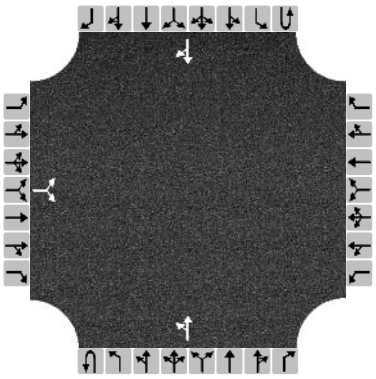
General Information

Analyst	DR
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	SAT Build
Intersection Orientation	North-South
Project Description	Wainscott Commercial Center

Site Information

Intersection	Gate Dr @ Daniels Hole Rd
Jurisdiction	East Hampton
East/West Street	Gate Drive
North/South Street	Daniel's Hole Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		5		0						0	70				72	3
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5							0						
Capacity, c (veh/h)			832							1507						
v/c Ratio			0.01							0.00						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			9.4							7.4						
Level of Service, LOS			A							A						
Approach Delay (s/veh)	9.4								0.0							
Approach LOS	A															

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Montauk Highway
(Route 27)
at
Reconstructed Old Montauk Highway / Site SE Access Road

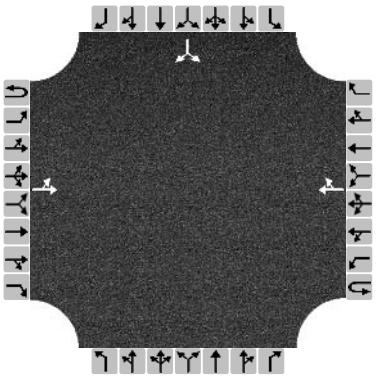
Weekday AM Peak Hour

HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Mtk Hwy @ Old Mtk Hwy
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Montauk Highway
Analysis Year	2019	North/South Street	Old Montauk Highway
Time Analyzed	AM Existing	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		2	832				830	2						2		3
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2													5	
Capacity, c (veh/h)		748													154	
v/c Ratio		0.00													0.04	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
Control Delay (s/veh)		9.8													29.2	
Level of Service, LOS		A													D	
Approach Delay (s/veh)	0.1												29.2			
Approach LOS													D			

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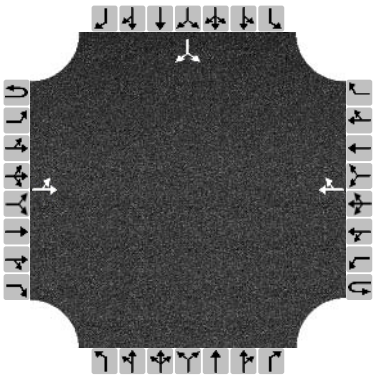
HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Mtk Hwy @ Old Mtk Hwy
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Montauk Highway
Analysis Year	2021	North/South Street	Old Montauk Highway
Time Analyzed	AM No Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		2	874				872	2						2		3
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2													5	
Capacity, c (veh/h)		718													138	
v/c Ratio		0.00													0.04	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
Control Delay (s/veh)		10.0													32.1	
Level of Service, LOS		B													D	
Approach Delay (s/veh)	0.1												32.1			
Approach LOS													D			

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HCS7 Two-Way Stop-Control Report

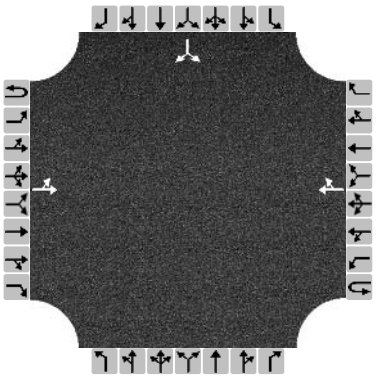
General Information

Analyst	CC
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	AM Build
Intersection Orientation	East-West
Project Description	Wainscott Commercial Center

Site Information

Intersection	Mtk Hwy @ Old Mtk Hwy
Jurisdiction	East Hampton
East/West Street	Montauk Highway
North/South Street	Old Montauk Highway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		57	877				898	77						19		9
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		62													30	
Capacity, c (veh/h)		653													70	
v/c Ratio		0.09													0.43	
95% Queue Length, Q_{95} (veh)		0.3													1.7	
Control Delay (s/veh)		11.1													91.1	
Level of Service, LOS		B													F	
Approach Delay (s/veh)	2.8												91.1			
Approach LOS													F			

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Weekday PM Peak Hour

HCS7 Two-Way Stop-Control Report

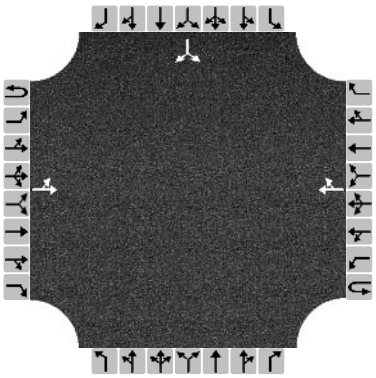
General Information

Analyst	CC
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2019
Time Analyzed	PM Existing
Intersection Orientation	East-West
Project Description	Wainscott Commercial Center

Site Information

Intersection	Mtk Hwy @ Old Mtk Hwy
Jurisdiction	East Hampton
East/West Street	Montauk Highway
North/South Street	Old Montauk Highway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		9	840				789	2						0		4
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10													4	
Capacity, c (veh/h)		777													354	
v/c Ratio		0.01													0.01	
95% Queue Length, Q_{95} (veh)		0.0													0.0	
Control Delay (s/veh)		9.7													15.3	
Level of Service, LOS		A													C	
Approach Delay (s/veh)	0.3												15.3			
Approach LOS													C			

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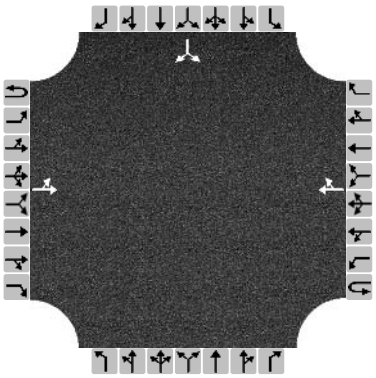
HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Mtk Hwy @ Old Mtk Hwy
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Montauk Highway
Analysis Year	2021	North/South Street	Old Montauk Highway
Time Analyzed	PM No Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		9	882				828	2						0		4
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10													4	
Capacity, c (veh/h)		749													335	
v/c Ratio		0.01													0.01	
95% Queue Length, Q_{95} (veh)		0.0													0.0	
Control Delay (s/veh)		9.9													15.9	
Level of Service, LOS		A													C	
Approach Delay (s/veh)	0.4												15.9			
Approach LOS													C			

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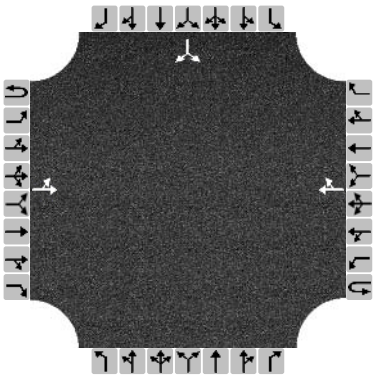
HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Mtk Hwy @ Old Mtk Hwy
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Montauk Highway
Analysis Year	2021	North/South Street	Old Montauk Highway
Time Analyzed	PM Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		21	895				834	18						87		36
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		23													134	
Capacity, c (veh/h)		733													90	
v/c Ratio		0.03													1.48	
95% Queue Length, Q_{95} (veh)		0.1													10.3	
Control Delay (s/veh)		10.1													347.1	
Level of Service, LOS		B													F	
Approach Delay (s/veh)	0.9												347.1			
Approach LOS													F			

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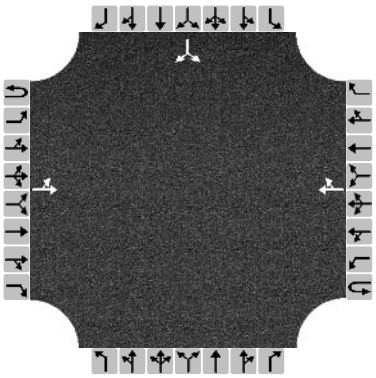
Saturday Peak Hour

HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Mtk Hwy @ Old Mtk Hwy
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Montauk Highway
Analysis Year	2019	North/South Street	Old Montauk Highway
Time Analyzed	SAT Existing	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		33	897				845	10						4		46
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		36													54	
Capacity, c (veh/h)		731													246	
v/c Ratio		0.05													0.22	
95% Queue Length, Q_{95} (veh)		0.2													0.8	
Control Delay (s/veh)		10.2													23.7	
Level of Service, LOS		B													C	
Approach Delay (s/veh)	1.4												23.7			
Approach LOS													C			

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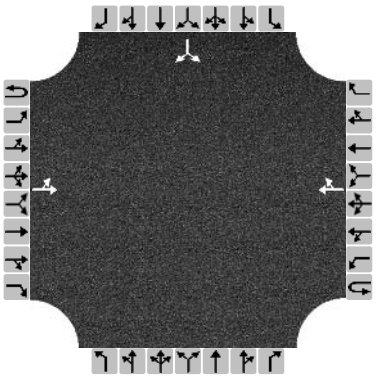
HCS7 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	CC	Intersection	Mtk Hwy @ Old Mtk Hwy
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Montauk Highway
Analysis Year	2021	North/South Street	Old Montauk Highway
Time Analyzed	SAT No Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		35	942				887	11						4		48
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		38													57	
Capacity, c (veh/h)		702													228	
v/c Ratio		0.05													0.25	
95% Queue Length, Q_{95} (veh)		0.2													0.9	
Control Delay (s/veh)		10.4													26.0	
Level of Service, LOS		B													D	
Approach Delay (s/veh)	1.6												26.0			
Approach LOS													D			

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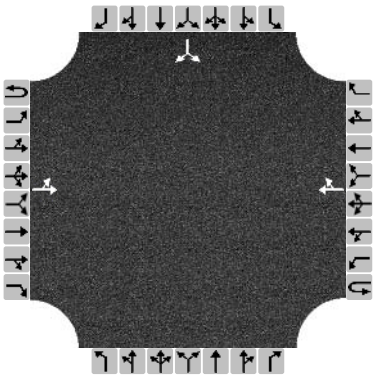
HCS7 Two-Way Stop-Control Report

General Information

Analyst	CC	Intersection	Mtk Hwy @ Old Mtk Hwy
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Montauk Highway
Analysis Year	2021	North/South Street	Old Montauk Highway
Time Analyzed	SAT Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume, V (veh/h)		46	948				892	26						38		61
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		50													108	
Capacity, c (veh/h)		689													105	
v/c Ratio		0.07													1.02	
95% Queue Length, Q_{95} (veh)		0.2													6.5	
Control Delay (s/veh)		10.6													170.5	
Level of Service, LOS		B													F	
Approach Delay (s/veh)	2.2												170.5			
Approach LOS													F			

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Wainscott Northwest Road
at
Broad Wood Court / Gate Drive
(Site NW Access Road)

Weekday AM Peak Hour

HCS7 Two-Way Stop-Control Report

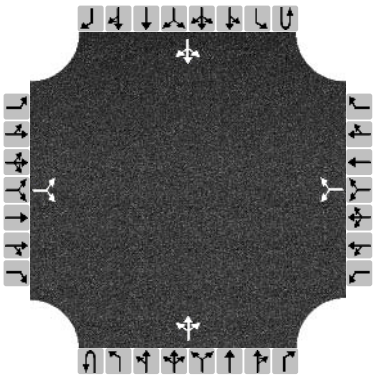
General Information

Analyst	DR
Agency/Co.	Dunn Eng. Assoc.
Date Performed	12/6/2019
Analysis Year	2021
Time Analyzed	AM Build
Intersection Orientation	North-South
Project Description	Wainscott Commercial Center

Site Information

Intersection	Broad Wood Ct @ Wainscott
Jurisdiction	East Hampton
East/West Street	Broad Wood Ct / Gate Dr
North/South Street	Wainscott NW Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LR				LR				LTR				LTR	
Volume, V (veh/h)		1		2		4		7		1	130	20		38	150	1
Percent Heavy Vehicles (%)		3		3		3		3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			3				12			1				41		
Capacity, c (veh/h)			724				721			1407				1408		
v/c Ratio			0.00				0.02			0.00				0.03		
95% Queue Length, Q_{95} (veh)			0.0				0.1			0.0				0.1		
Control Delay (s/veh)			10.0				10.1			7.6				7.6		
Level of Service, LOS			A				B			A				A		
Approach Delay (s/veh)	10.0				10.1				0.1				1.7			
Approach LOS	A				B											

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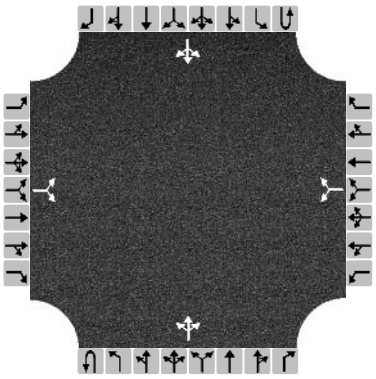
Weekday PM Peak Hour

HCS7 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	DR	Intersection	Broad Wood Ct @ Wainscott
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Broad Wood Ct / Gate Dr
Analysis Year	2021	North/South Street	Wainscott NW Road
Time Analyzed	PM Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LR				LR				LTR				LTR	
Volume, V (veh/h)		1		1		20		37		2	90	4		8	160	1
Percent Heavy Vehicles (%)		3		3		3		3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			2				62			2				9		
Capacity, c (veh/h)			712				817			1394				1482		
v/c Ratio			0.00				0.08			0.00				0.01		
95% Queue Length, Q_{95} (veh)			0.0				0.2			0.0				0.0		
Control Delay (s/veh)			10.1				9.8			7.6				7.4		
Level of Service, LOS			B				A			A				A		
Approach Delay (s/veh)	10.1				9.8				0.2				0.4			
Approach LOS	B				A											

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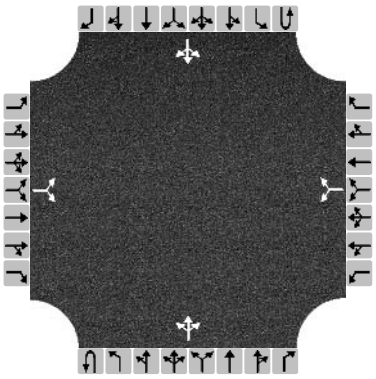
Saturday Peak Hour

HCS7 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	DR	Intersection	Broad Wood Ct @ Wainscott
Agency/Co.	Dunn Eng. Assoc.	Jurisdiction	East Hampton
Date Performed	12/6/2019	East/West Street	Broad Wood Ct / Gate Dr
Analysis Year	2021	North/South Street	Wainscott NW Road
Time Analyzed	SAT Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Wainscott Commercial Center		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LR				LR				LTR				LTR	
Volume, V (veh/h)		1		1		8		15		2	158	4		7	115	1
Percent Heavy Vehicles (%)		3		3		3		3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			2				25			2				8		
Capacity, c (veh/h)			733				764			1452				1393		
v/c Ratio			0.00				0.03			0.00				0.01		
95% Queue Length, Q_{95} (veh)			0.0				0.1			0.0				0.0		
Control Delay (s/veh)			9.9				9.9			7.5				7.6		
Level of Service, LOS			A				A			A				A		
Approach Delay (s/veh)	9.9				9.9				0.1				0.5			
Approach LOS	A				A											

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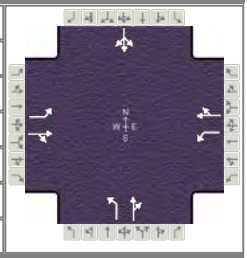
Montauk Highway
(NYS Route 27)
at
Wainscott Northwest Road

Weekday AM Peak Hour

HCS 2010 Signalized Intersection Results Summary

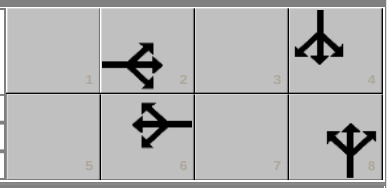
General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	AM Existing	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2019	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Wainsc…	File Name	Montauk@WNW AM Existing.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	76	791	6	12	779	37	16	26	21	84	32	89

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	86.7	21.3	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		6.0		8.0
Phase Duration, s		92.7		92.7		27.3		27.3
Change Period, ($Y+R_c$), s		6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.2		3.2
Queue Clearance Time (g_s), s						20.9		19.5
Green Extension Time (g_e), s		0.0		0.0		0.2		0.3
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		0.35

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	83	866		13	887		17	51			223	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	636	1897		649	1885		1278	1759			1492	
Queue Service Time (g_s), s	9.5	28.1		1.3	29.7		1.6	2.9			14.7	
Cycle Queue Clearance Time (g_c), s	39.9	28.1		30.0	29.7		18.9	2.9			17.5	
Green Ratio (*g/C*)	0.72	0.72		0.72	0.72		0.18	0.18			0.18	
Capacity (*c*), veh/h	358	1368		373	1359		105	314			309	
Volume-to-Capacity Ratio (*X*)	0.231	0.633		0.035	0.653		0.166	0.162			0.721	
Available Capacity (c_a), veh/h	358	1368		373	1359		132	352			342	
Back of Queue (*Q*), veh/ln (50 th percentile)	1.5	10.7		0.2	11.3		0.5	1.3			6.8	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	19.5	8.6		16.4	8.8		56.7	41.7			47.9	
Incremental Delay (d_2), s/veh	1.5	2.2		0.2	2.4		0.3	0.1			5.2	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Control Delay (*d*), s/veh	21.0	10.8		16.6	11.3		56.9	41.8			53.1	
Level of Service (LOS)	C	B		B	B		E	D			D	
Approach Delay, s/veh / LOS	11.7	B		11.3	B		45.6	D		53.1	D	
Intersection Delay, s/veh / LOS	16.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.0	B	2.3	B	2.3	B
Bicycle LOS Score / LOS	2.1	B	2.0	A	0.6	A	0.9	A

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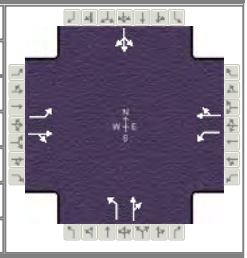
HCS 2010 Signalized Intersection Results Summary

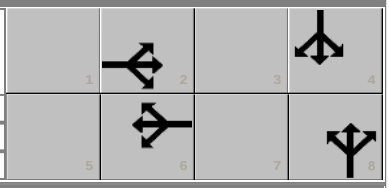
General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	AM No Build	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Wainsc…	File Name	Montauk@WNW AM No Build.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	80	831	6	13	818	39	17	27	22	88	34	93

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Float	Simult. Gap N/S	On

Green	85.8	22.2	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		6.0		8.0
Phase Duration, s		91.8		91.8		28.2		28.2
Change Period, ($Y+R_c$), s		6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.2		3.2
Queue Clearance Time (g_s), s						21.9		20.4
Green Extension Time (g_e), s		0.0		0.0		0.1		0.2
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		0.77

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	87	910		14	932		18	53			234	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	610	1898		623	1885		1271	1758			1483	
Queue Service Time (g_s), s	11.4	31.7		1.5	33.6		1.7	3.0			15.6	
Cycle Queue Clearance Time (g_c), s	45.6	31.7		33.8	33.6		19.9	3.0			18.4	
Green Ratio (*g/C*)	0.71	0.71		0.71	0.71		0.19	0.19			0.19	
Capacity (*c*), veh/h	321	1354		337	1344		104	328			319	
Volume-to-Capacity Ratio (*X*)	0.271	0.672		0.042	0.693		0.177	0.162			0.732	
Available Capacity (c_a), veh/h	321	1354		337	1344		121	352			340	
Back of Queue (*Q*), veh/ln (50 th percentile)	1.8	12.3		0.2	13.0		0.6	1.3			7.2	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	22.9	9.5		19.0	9.8		56.7	40.9			47.5	
Incremental Delay (d_2), s/veh	2.1	2.7		0.2	3.0		0.3	0.1			6.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Control Delay (*d*), s/veh	25.0	12.2		19.2	12.7		57.0	41.0			53.7	
Level of Service (LOS)	C	B		B	B		E	D			D	
Approach Delay, s/veh / LOS	13.3	B		12.8	B		45.1	D		53.7	D	
Intersection Delay, s/veh / LOS	18.3						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.1	B	2.3	B	2.3	B
Bicycle LOS Score / LOS	2.1	B	2.0	B	0.6	A	0.9	A

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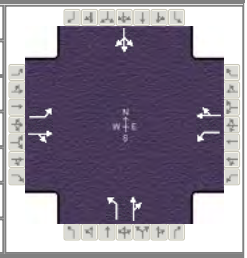
HCS 2010 Signalized Intersection Results Summary

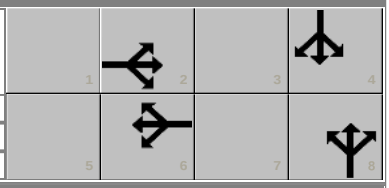
General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	AM Build	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Wainsc…	File Name	Montauk@WNW AM Build.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	95	912	6	13	833	39	17	32	22	90	35	96

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Float	Simult. Gap N/S	On

Green	85.0	23.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		6.0		8.0
Phase Duration, s		91.0		91.0		29.0		29.0
Change Period, ($Y+R_c$), s		6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.2		3.2
Queue Clearance Time (g_s), s						22.8		21.3
Green Extension Time (g_e), s		0.0		0.0		0.1		0.2
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	103	998		14	948		18	59			240	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	601	1898		573	1885		1266	1770			1463	
Queue Service Time (g_s), s	14.8	38.9		1.9	35.5		1.7	3.3			16.1	
Cycle Queue Clearance Time (g_c), s	50.8	38.9		41.4	35.5		20.8	3.3			19.3	
Green Ratio (*g/C*)	0.71	0.71		0.71	0.71		0.19	0.19			0.19	
Capacity (*c*), veh/h	305	1342		277	1333		103	341			324	
Volume-to-Capacity Ratio (*X*)	0.339	0.743		0.051	0.711		0.180	0.172			0.741	
Available Capacity (c_a), veh/h	305	1342		277	1333		112	354			335	
Back of Queue (*Q*), veh/ln (50 th percentile)	2.3	15.4		0.3	13.9		0.6	1.5			7.5	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	25.5	10.8		23.8	10.3		56.8	40.4			47.3	
Incremental Delay (d_2), s/veh	3.0	3.8		0.3	3.2		0.3	0.1			7.2	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Control Delay (*d*), s/veh	28.5	14.6		24.1	13.6		57.2	40.5			54.4	
Level of Service (LOS)	C	B		C	B		E	D			D	
Approach Delay, s/veh / LOS	15.9	B		13.7	B		44.5	D		54.4	D	
Intersection Delay, s/veh / LOS	19.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.1	B	2.3	B	2.3	B
Bicycle LOS Score / LOS	2.3	B	2.1	B	0.6	A	0.9	A

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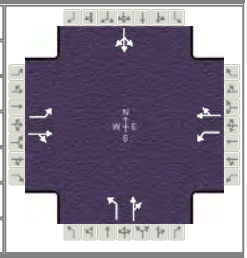
Weekday PM Peak Hour

HCS 2010 Signalized Intersection Results Summary

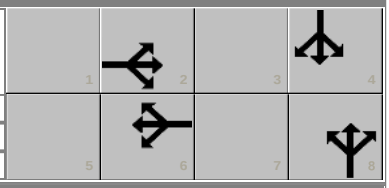
General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	PM Existing	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2019	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Wainsc…	File Name	Montauk@WNW PM Existing.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	38	827	14	30	794	15	22	29	39	38	26	71

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	92.4	15.6	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		6.0		8.0
Phase Duration, s		98.4		98.4		21.6		21.6
Change Period, ($Y+R_c$), s		6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.2		3.2
Queue Clearance Time (g_s), s						15.0		13.1
Green Extension Time (g_e), s		0.0		0.0		0.3		0.4
Phase Call Probability						1.00		1.00
Max Out Probability						0.01		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	41	914		33	879		24	74			147	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	641	1894		620	1894		1309	1722			1534	
Queue Service Time (g_s), s	3.7	26.1		3.0	24.2		2.1	4.7			6.8	
Cycle Queue Clearance Time (g_c), s	28.8	26.1		30.0	24.2		13.0	4.7			11.1	
Green Ratio (*g/C*)	0.77	0.77		0.77	0.77		0.13	0.13			0.13	
Capacity (*c*), veh/h	418	1453		396	1453		116	229			242	
Volume-to-Capacity Ratio (*X*)	0.099	0.629		0.082	0.605		0.206	0.323			0.606	
Available Capacity (c_a), veh/h	418	1453		396	1453		204	344			348	
Back of Queue (*Q*), veh/ln (50 th percentile)	0.6	9.1		0.5	8.4		0.7	2.0			4.3	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	12.5	6.3		13.3	6.1		56.0	47.1			49.9	
Incremental Delay (d_2), s/veh	0.5	2.1		0.4	1.9		0.3	0.3			0.9	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Control Delay (*d*), s/veh	13.0	8.4		13.7	7.9		56.3	47.4			50.8	
Level of Service (LOS)	B	A		B	A		E	D			D	
Approach Delay, s/veh / LOS	8.6	A		8.2	A		49.6	D		50.8	D	
Intersection Delay, s/veh / LOS	13.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.0	B	2.3	B	2.3	B
Bicycle LOS Score / LOS	2.1	B	2.0	A	0.6	A	0.7	A

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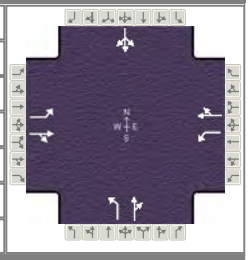
HCS 2010 Signalized Intersection Results Summary

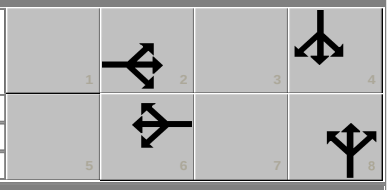
General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	PM No Build	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Wainsc…	File Name	Montauk@WNW PM No Build.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	40	868	15	32	834	16	23	30	41	40	27	75

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Float	Simult. Gap N/S	On

Green	91.7	16.3	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		6.0		8.0
Phase Duration, s		97.7		97.7		22.3		22.3
Change Period, ($Y+R_c$), s		6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.3		3.3
Queue Clearance Time (g_s), s						15.7		13.8
Green Extension Time (g_e), s		0.0		0.0		0.3		0.4
Phase Call Probability						1.00		1.00
Max Out Probability						0.01		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	43	960		35	924		25	77			154	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	615	1894		594	1894		1303	1721			1524	
Queue Service Time (g_s), s	4.3	29.4		3.7	27.3		2.2	4.9			7.3	
Cycle Queue Clearance Time (g_c), s	32.6	29.4		34.2	27.3		13.7	4.9			11.8	
Green Ratio (*g/C*)	0.76	0.76		0.76	0.76		0.14	0.14			0.14	
Capacity (*c*), veh/h	383	1442		361	1442		117	239			250	
Volume-to-Capacity Ratio (*X*)	0.114	0.666		0.096	0.641		0.214	0.323			0.618	
Available Capacity (c_a), veh/h	383	1442		361	1442		197	344			346	
Back of Queue (*Q*), veh/ln (50 th percentile)	0.7	10.4		0.5	9.6		0.7	2.1			4.5	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	14.5	6.9		15.5	6.7		56.0	46.6			49.6	
Incremental Delay (d_2), s/veh	0.6	2.4		0.5	2.2		0.3	0.3			0.9	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Control Delay (*d*), s/veh	15.1	9.4		16.0	8.9		56.3	46.9			50.5	
Level of Service (LOS)	B	A		B	A		E	D			D	
Approach Delay, s/veh / LOS	9.6	A		9.1	A		49.2	D		50.5	D	
Intersection Delay, s/veh / LOS	14.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.0	B	2.3	B	2.3	B
Bicycle LOS Score / LOS	2.1	B	2.1	B	0.7	A	0.7	A

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HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Eastthampton	Time Period	PM Build	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Wainsc...	File Name	Montauk@WNW PM Build.xus		
Project Description					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	43	886	15	32	914	16	23	31	41	52	32	90

Signal Information												
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End	Green	89.0	21.0	0.0	0.0	0.0	0.0		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0		
Force Mode	Float	Simult. Gap N/S	On	Red	2.0	0.0	0.0	0.0	0.0	0.0		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		6.0		8.0
Phase Duration, s		95.0		95.0		25.0		25.0
Change Period, ($Y+R_c$), s		6.0		6.0		6.0		6.0
Max Allow Headway (MAH), s		0.0		0.0		3.3		3.3
Queue Clearance Time (g_s), s						18.5		16.6
Green Extension Time (g_e), s		0.0		0.0		0.3		0.4
Phase Call Probability						1.00		1.00
Max Out Probability						0.17		0.04

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	47	979		35	1011		25	78			189	
Adjusted Saturation Flow Rate (s), veh/h/ln	566	1894		584	1894		1277	1723			1507	
Queue Service Time (g_s), s	6.1	33.5		4.2	35.8		2.3	4.8			10.2	
Cycle Queue Clearance Time (g_c), s	43.1	33.5		38.8	35.8		16.5	4.8			14.6	
Green Ratio (g/C)	0.74	0.74		0.74	0.74		0.16	0.16			0.16	
Capacity (c), veh/h	304	1400		323	1400		114	277			281	
Volume-to-Capacity Ratio (X)	0.154	0.699		0.108	0.722		0.219	0.283			0.673	
Available Capacity (c_a), veh/h	304	1400		323	1400		164	345			342	
Back of Queue (Q), veh/ln (50 th percentile)	0.9	12.5		0.6	13.4		0.7	2.1			5.6	
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	21.2	8.4		19.2	8.7		56.1	44.3			48.5	
Incremental Delay (d_2), s/veh	1.1	2.9		0.7	3.3		0.4	0.2			2.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Control Delay (d), s/veh	22.2	11.4		19.9	12.0		56.5	44.5			50.8	
Level of Service (LOS)	C	B		B	B		E	D			D	
Approach Delay, s/veh / LOS	11.9	B		12.3	B		47.4	D		50.8	D	
Intersection Delay, s/veh / LOS	16.7						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.0	B	2.3	B	2.3	B
Bicycle LOS Score / LOS	2.2	B	2.2	B	0.7	A	0.8	A

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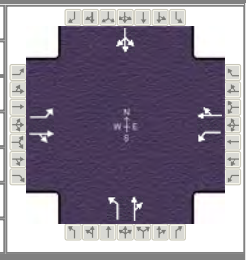
Saturday Peak Hour

HCS 2010 Signalized Intersection Results Summary

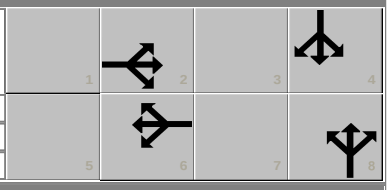
General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	SAT Existing	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2019	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Wainsc…	File Name	Montauk@WNW SAT Existing.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	69	870	8	35	743	36	32	42	32	82	54	109

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	84.0	24.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		6.0		8.0
Phase Duration, s		90.0		90.0		30.0		30.0
Change Period, ($Y+R_c$), s		6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.2		3.2
Queue Clearance Time (g_s), s						26.0		24.1
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	75	954		38	847		35	80			266	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	661	1897		597	1884		1226	1763			1432	
Queue Service Time (g_s), s	8.4	36.5		4.9	29.4		1.9	4.6			17.5	
Cycle Queue Clearance Time (g_c), s	37.7	36.5		41.4	29.4		24.0	4.6			22.1	
Green Ratio (*g/C*)	0.70	0.70		0.70	0.70		0.20	0.20			0.20	
Capacity (*c*), veh/h	361	1328		297	1319		79	353			326	
Volume-to-Capacity Ratio (*X*)	0.208	0.719		0.128	0.642		0.440	0.228			0.816	
Available Capacity (c_a), veh/h	361	1328		297	1319		79	353			326	
Back of Queue (*Q*), veh/ln (50 th percentile)	1.4	14.5		0.8	11.5		1.1	2.0			9.0	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	20.1	10.9		23.4	9.8		59.5	40.2			47.9	
Incremental Delay (d_2), s/veh	1.3	3.4		0.9	2.4		1.4	0.1			13.8	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Control Delay (*d*), s/veh	21.4	14.2		24.2	12.2		60.9	40.4			61.8	
Level of Service (LOS)	C	B		C	B		E	D			E	
Approach Delay, s/veh / LOS	14.8	B		12.7	B		46.6	D		61.8	E	
Intersection Delay, s/veh / LOS	21.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.1	B	2.3	B	2.3	B
Bicycle LOS Score / LOS	2.2	B	1.9	A	0.7	A	0.9	A

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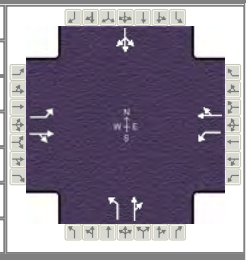
HCS 2010 Signalized Intersection Results Summary

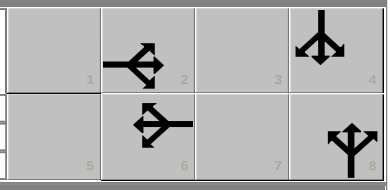
General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	SAT No Build	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Wainsc…	File Name	Montauk@WNW SAT No Build.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	72	914	8	37	780	38	34	44	34	86	57	114

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Float	Simult. Gap N/S	On

Green	84.0	24.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		6.0		8.0
Phase Duration, s		90.0		90.0		30.0		30.0
Change Period, ($Y+R_c$), s		6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.3		3.3
Queue Clearance Time (g_s), s						26.0		26.0
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	78	1002		40	889		37	85			279	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	635	1897		571	1884		1217	1762			1397	
Queue Service Time (g_s), s	9.6	40.3		5.8	32.2		0.0	4.9			19.1	
Cycle Queue Clearance Time (g_c), s	41.7	40.3		46.1	32.2		24.0	4.9			24.0	
Green Ratio (*g/C*)	0.70	0.70		0.70	0.70		0.20	0.20			0.20	
Capacity (*c*), veh/h	334	1328		268	1319		60	352			319	
Volume-to-Capacity Ratio (*X*)	0.234	0.755		0.150	0.674		0.615	0.241			0.874	
Available Capacity (c_a), veh/h	334	1328		268	1319		60	352			319	
Back of Queue (*Q*), veh/ln (50 th percentile)	1.6	16.1		0.9	12.6		1.3	2.1			10.2	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	22.1	11.4		26.1	10.2		60.0	40.3			48.9	
Incremental Delay (d_2), s/veh	1.6	4.0		1.2	2.8		13.0	0.1			21.8	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Control Delay (*d*), s/veh	23.7	15.5		27.3	13.0		73.0	40.5			70.7	
Level of Service (LOS)	C	B		C	B		E	D			E	
Approach Delay, s/veh / LOS	16.1	B		13.6	B		50.3	D		70.7	E	
Intersection Delay, s/veh / LOS	23.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.1	B	2.3	B	2.3	B
Bicycle LOS Score / LOS	2.3	B	2.0	B	0.7	A	0.9	A

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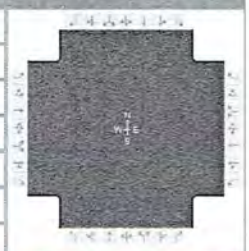
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	SAT Build	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Wainsc...	File Name	Montauk@WNW SAT Build.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	75	930	8	37	811	38	34	45	34	91	59	120

Signal Information												
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End	Green	45.4	19.6	0.0	0.0	0.0	0.0		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0		
Force Mode	Float	Simult. Gap N/S	On	Red	2.0	0.0	0.0	0.0	0.0	0.0		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		6.0		8.0
Phase Duration, s		90.0		90.0		30.0		30.0
Change Period, ($Y+R_c$), s		6.0		6.0		6.0		6.0
Max Allow Headway (MAH), s		0.0		0.0		3.3		3.3
Queue Clearance Time (g_s), s						26.0		26.0
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	82	1020		40	923		37	86			293	
Adjusted Saturation Flow Rate (s), veh/h/ln	615	1897		562	1885		1207	1763			1373	
Queue Service Time (g_s), s	10.8	41.8		6.0	34.5		0.0	4.9			19.1	
Cycle Queue Clearance Time (g_c), s	45.3	41.8		47.8	34.5		24.0	4.9			24.0	
Green Ratio (g/C)	0.70	0.70		0.70	0.70		0.20	0.20			0.20	
Capacity (c), veh/h	314	1328		257	1319		60	353			315	
Volume-to-Capacity Ratio (X)	0.260	0.768		0.156	0.699		0.616	0.243			0.933	
Available Capacity (c_a), veh/h	314	1328		257	1319		60	353			315	
Back of Queue (Q), veh/ln (50 th percentile)	1.7	16.8		0.9	13.6		1.3	2.1			11.7	
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	23.9	11.7		27.2	10.6		60.0	40.4			49.8	
Incremental Delay (d_2), s/veh	2.0	4.3		1.3	3.1		13.1	0.1			33.1	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Control Delay (d), s/veh	25.9	16.0		28.5	13.7		73.1	40.5			82.9	
Level of Service (LOS)	C	B		C	B		E	D			F	
Approach Delay, s/veh / LOS	16.7	B		14.3	B		50.3	D		82.9	F	
Intersection Delay, s/veh / LOS	25.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.1	B	2.3	B	2.3	B
Bicycle LOS Score / LOS	2.3	B	2.1	B	0.7	A	1.0	A

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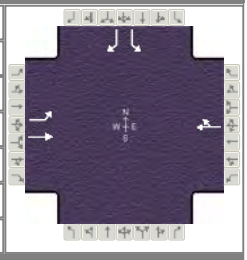
Montauk Highway
(NYS Route 27)
at
Reconstructed Old Montauk Hwy / Proposed Site SE Access Road

Weekday AM Peak Hour

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	AM Build	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Old Mo…	File Name	Montauk@Old Montauk Highway AM Build.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	57	877			898	77				19		9

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Float	Simult. Gap N/S	On

Green	104.2	3.8	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		6.0		8.0				9.0
Phase Duration, s		110.2		110.2				9.8
Change Period, ($Y+R_c$), s		6.0		6.0				6.0
Max Allow Headway (*MAH*), s		0.0		0.0				3.2
Queue Clearance Time (g_s), s								3.3
Green Extension Time (g_e), s		0.0		0.0				0.0
Phase Call Probability								0.64
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6	16				7		14
Adjusted Flow Rate (*v*), veh/h	62	953			1060					21		10
Adjusted Saturation Flow Rate (*s*), veh/h/ln	541	1900			1873					1810		1610
Queue Service Time (g_s), s	4.7	15.9			20.6					1.3		0.7
Cycle Queue Clearance Time (g_c), s	25.4	15.9			20.6					1.3		0.7
Green Ratio (*g/C*)	0.87	0.87			0.87					0.03		0.03
Capacity (*c*), veh/h	436	1649			1626					58		51
Volume-to-Capacity Ratio (*X*)	0.142	0.578			0.652					0.358		0.191
Available Capacity (c_a), veh/h	436	1649			1626					362		322
Back of Queue (*Q*), veh/ln (50 th percentile)	0.6	3.2			4.1					0.6		0.3
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00			0.00					0.00		0.00
Uniform Delay (d_1), s/veh	6.3	2.1			2.4					56.9		56.6
Incremental Delay (d_2), s/veh	0.7	1.5			2.0					1.4		0.7
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0					0.0		0.0
Control Delay (*d*), s/veh	6.9	3.6			4.4					58.3		57.2
Level of Service (LOS)	A	A			A					E		E
Approach Delay, s/veh / LOS	3.8	A		4.4	A		0.0			57.9	E	
Intersection Delay, s/veh / LOS	4.9						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	0.6	A	2.2	B	2.2	B	2.3	B
Bicycle LOS Score / LOS	2.2	B	2.2	B				F

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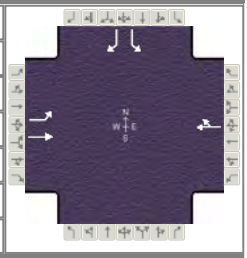
Weekday PM Peak Hour

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	PM Build	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Old Mo…	File Name	Montauk@Old Montauk Highway PM Build.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	21	895			834	18				87		36

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Float	Simult. Gap N/S	On

Green	99.7	8.3	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		6.0		8.0				9.0
Phase Duration, s		105.7		105.7				14.3
Change Period, ($Y+R_c$), s		6.0		6.0				6.0
Max Allow Headway (*MAH*), s		0.0		0.0				3.2
Queue Clearance Time (g_s), s								8.2
Green Extension Time (g_e), s		0.0		0.0				0.2
Phase Call Probability								0.99
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6	16				7		14
Adjusted Flow Rate (*v*), veh/h	23	973			926					95		39
Adjusted Saturation Flow Rate (*s*), veh/h/ln	613	1900			1893					1810		1610
Queue Service Time (g_s), s	1.5	21.3			19.4					6.2		2.8
Cycle Queue Clearance Time (g_c), s	21.0	21.3			19.4					6.2		2.8
Green Ratio (*g/C*)	0.83	0.83			0.83					0.07		0.07
Capacity (*c*), veh/h	471	1579			1573					125		111
Volume-to-Capacity Ratio (*X*)	0.048	0.616			0.589					0.760		0.353
Available Capacity (c_a), veh/h	471	1579			1573					362		322
Back of Queue (*Q*), veh/ln (50 th percentile)	0.2	5.8			5.3					2.9		1.1
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00			0.00					0.00		0.00
Uniform Delay (d_1), s/veh	6.8	3.5			3.3					54.9		53.3
Incremental Delay (d_2), s/veh	0.2	1.8			1.6					3.5		0.7
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0					0.0		0.0
Control Delay (*d*), s/veh	7.0	5.3			5.0					58.4		54.0
Level of Service (LOS)	A	A			A					E		D
Approach Delay, s/veh / LOS	5.4	A		5.0	A		0.0			57.2	E	
Intersection Delay, s/veh / LOS	8.5						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	0.6	A	2.2	B	2.2	B	2.3	B
Bicycle LOS Score / LOS	2.1	B	2.0	B				F

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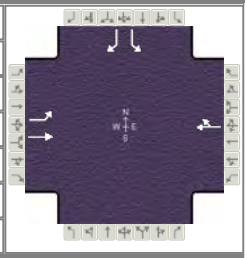
Saturday Peak Hour

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Dunn Eng. Assoc. P.C.			Duration, h	0.25
Analyst	CC	Analysis Date	12/6/2019	Area Type	Other
Jurisdiction	Easthampton	Time Period	SAT Build	PHF	0.92
Urban Street	Montauk Hwy	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	Montauk Hwy @ Old Mo…	File Name	Montauk@Old Montauk Highway SAT Build.xus		
Project Description					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	46	948			892	26				38		61

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Float	Simult. Gap N/S	On

Green	101.2	6.8	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		6.0		8.0				9.0
Phase Duration, s		107.2		107.2				12.8
Change Period, ($Y+R_c$), s		6.0		6.0				6.0
Max Allow Headway (*MAH*), s		0.0		0.0				3.3
Queue Clearance Time (g_s), s								6.9
Green Extension Time (g_e), s		0.0		0.0				0.2
Phase Call Probability								0.97
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6	16				7		14
Adjusted Flow Rate (*v*), veh/h	50	1030			998					41		66
Adjusted Saturation Flow Rate (*s*), veh/h/ln	573	1900			1890					1810		1610
Queue Service Time (g_s), s	3.8	22.3			21.0					2.6		4.9
Cycle Queue Clearance Time (g_c), s	24.9	22.3			21.0					2.6		4.9
Green Ratio (*g/C*)	0.84	0.84			0.84					0.06		0.06
Capacity (*c*), veh/h	443	1602			1594					103		92
Volume-to-Capacity Ratio (*X*)	0.113	0.643			0.626					0.401		0.724
Available Capacity (c_a), veh/h	443	1602			1594					362		322
Back of Queue (*Q*), veh/ln (50 th percentile)	0.5	5.7			5.3					1.2		2.1
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00			0.00					0.00		0.00
Uniform Delay (d_1), s/veh	7.3	3.2			3.1					54.6		55.7
Incremental Delay (d_2), s/veh	0.5	2.0			1.9					0.9		4.0
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0					0.0		0.0
Control Delay (*d*), s/veh	7.8	5.2			5.0					55.6		59.7
Level of Service (LOS)	A	A			A					E		E
Approach Delay, s/veh / LOS	5.3	A		5.0	A		0.0			58.1	E	
Intersection Delay, s/veh / LOS	7.8						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	0.6	A	2.2	B	2.2	B	2.3	B
Bicycle LOS Score / LOS	2.3	B	2.1	B				F

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Traffic Volume Data

STATION: **070160**

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 27** ROAD NAME:
DIRECTION: Eastbound FACTOR GROUP: 40
STATE DIR CODE: 6 WK OF YR: 35
DATE OF COUNT: 08/24/2015
NOTES LANE 1: East

COUNT TAKEN BY: ORG CODE: TTG INITIALS: MJ

FROM: **CR 79 BRIDGEHAMPTON SAG HARB** TO: **JERICHO RD**
REC. SERIAL #: GB63 FUNC. CLASS: 14
PLACEMENT: 540ft W of Georgica Rd NHS: no
@ REF MARKER: JURIS: City
ADDL DATA: CC Stn:
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R10 WW35d Vol
PROCESSED BY: ORG CODE: DOT INITIALS: JLB

COUNTY: **Suffolk**
TOWN:
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	S																											
2	S																											
3	M																											
4	T																											
5	W																											
6	T																											
7	F																											
8	S																											
9	S																											
10	M																											
11	T																											
12	W																											
13	T																											
14	F																											
15	S																											
16	S																											
17	M																											
18	T																											
19	W																											
20	T																											
21	F																											
22	S																											
23	S																											
24	M																	**893**	**863**	**716**	**521**	**420**	**318**	**244**	**149**			
25	T	**75**	**43**	**23**	**35**	**57**	**225**	**566**	**754**	**810**	**857**	**799**	**890**	**926**	**920**	**907**	**912**	**887**	**911**	**751**	**568**	**432**	**360**	**305**	**143**	13156	926	12
26	W	**73**	**50**	**38**	**56**	**65**	**225**	**615**	**750**	**805**	**891**	**901**	**953**	**1000**	**1014**	**942**	**940**	**978**	**868**	**772**	**636**	**464**	**454**	**336**	**171**	13997	1014	13
27	T	**121**	**64**	**42**	**63**	**79**	**242**	**636**	**729**	**869**	**943**	**915**	**930**	**1000**	**806**	**654**	**995**	**900**	**861**									
28	F																											
29	S																											
30	S																											
31	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
88	**51**	**33**	**50**	**66**	**226**	**594**	**729**	**811**	**879**	**855**	**906**	**955**	**895**	**817**	**930**	**896**	**858**	**731**	**563**	**430**	**369**	**289**	**151**	**13172**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
3	74	3	74	955	7%	0.980	1.186

ESTIMATED

AADT
11106

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 27** ROAD NAME:
DIRECTION: Westbound FACTOR GROUP: 40
STATE DIR CODE: 7 WK OF YR: 35
DATE OF COUNT: 08/24/2015
NOTES LANE 1: West

COUNT TAKEN BY: ORG CODE: TTG INITIALS: MJ

FROM: **CR 79 BRIDGEHAMPTON SAG HARB** TO: **JERICHO RD**
REC. SERIAL #: GD94 FUNC. CLASS: 14
PLACEMENT: 540ft W of Georgica Rd NHS: no
@ REF MARKER: JURIS: City
ADDL DATA: CC Stn:
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R10 WW35d Vol
PROCESSED BY: ORG CODE: DOT INITIALS: JLB

COUNTY: **Suffolk**
TOWN:
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	S																											
2	S																											
3	M																											
4	T																											
5	W																											
6	T																											
7	F																											
8	S																											
9	S																											
10	M																											
11	T																											
12	W																											
13	T																											
14	F																											
15	S																											
16	S																											
17	M																											
18	T																											
19	W																											
20	T																											
21	F																											
22	S																											
23	S																											
24	M																	**782**	**800**	**758**	**651**	**586**	**356**	**284**	**157**			
25	T	**61**	**38**	**22**	**20**	**73**	**119**	**497**	**668**	**792**	**808**	**833**	**901**	**883**	**792**	**796**	**826**	**846**	**762**	**699**	**593**	**426**	**316**	**260**	**116**	12147	901	11
26	W	**69**	**28**	**27**	**20**	**70**	**113**	**477**	**707**	**815**	**862**	**818**	**926**	**850**	**835**	**824**	**872**	**748**	**767**	**779**	**671**	**505**	**413**	**281**	**163**	12640	926	11
27	T	**76**	**50**	**35**	**33**	**57**	**124**	**483**	**716**	**779**	**858**	**857**	**863**	**847**	**730**	**505**	**906**	**826**	**814**									
28	F																											
29	S																											
30	S																											
31	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																								ADT
68	**38**	**27**	**24**	**66**	**117**	**476**	**683**	**779**	**826**	**819**	**879**	**843**	**770**	**694**	**851**	**784**	**770**	**730**	**625**	**496**	**355**	**269**	**142**	**12131**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
3	74	3	74	879	7%	0.980	1.186

ESTIMATED

AADT
10228

Study Name TC--32041__Wainscott__Loc_1 - Thursday
Start Date 08-17-2017
Start Time 7:00
Site Code Loc. 1. Montauk Hwy @ Wainscott N.W. Road

	Montauk Hwy Eastbound				Montauk Hwy Westbound				Wainscott NW Rd Northbound				Wainscott NW Rd Southbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00	0	16	197	3	0	2	140	5	0	1	6	4	0	12	4	12
7:15	0	13	203	1	0	4	153	11	0	3	4	5	0	14	2	6
7:30	0	12	202	4	0	3	179	4	0	0	4	2	0	9	5	19
7:45	0	24	196	1	0	2	183	11	0	4	5	2	0	7	6	31
8:00	0	20	203	1	0	3	188	12	0	2	7	2	0	20	6	17
8:15	0	17	194	1	0	5	185	5	0	5	8	6	0	28	5	17
8:30	0	11	160	3	0	1	186	7	0	4	5	10	0	25	13	20
8:45	0	14	178	2	0	5	192	6	0	3	18	8	0	18	5	24
9:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
16:00	0	7	180	2	0	7	201	2	0	6	7	11	0	10	5	19
16:15	0	9	215	6	1	5	194	2	0	4	6	8	0	4	7	17
16:30	0	7	198	3	0	9	178	6	0	5	6	9	0	12	5	18
16:45	0	13	195	2	0	8	183	4	0	6	9	9	0	10	8	14
17:00	0	8	132	5	0	5	177	5	0	3	9	9	0	20	8	24
17:15	0	12	175	0	0	5	205	1	0	6	13	2	0	10	8	30
17:30	0	12	159	3	0	2	202	1	0	4	6	11	0	12	6	28
17:45	0	9	164	2	0	5	190	3	0	7	9	6	0	13	6	12
18:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

Study Name TC--32041__Wainscott__Loc_1 - Saturday
Start Date 08-19-2017
Start Time 11:00
Site Code 1. Montauk Hwy @ Wainscott N.W. Road

	Montauk Hwy Eastbound				Montauk Hwy Westbound				Wainscott NW Rd Northbound				Wainscott NW Rd Southbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00	0	9	203	6	0	4	189	13	0	8	8	11	0	16	15	25
11:15	0	13	212	3	0	13	191	7	0	6	10	12	0	15	12	11
11:30	0	10	202	0	0	10	178	10	0	8	12	7	0	21	9	15
11:45	0	16	169	4	0	4	179	15	0	10	15	10	0	17	11	26
12:00	0	10	199	2	0	8	179	14	0	7	15	13	0	13	13	33
12:15	0	10	186	5	0	9	184	12	0	10	18	7	0	15	10	14
12:30	0	17	191	1	0	7	192	8	0	8	8	5	0	24	15	29
12:45	0	14	214	3	0	12	176	5	0	6	12	11	0	20	14	21
13:00	0	23	209	2	0	10	156	11	0	11	10	6	0	18	10	28
13:15	0	12	215	2	0	4	184	10	0	5	10	8	0	16	12	26
13:30	0	5	227	3	0	9	172	9	0	5	11	8	0	12	8	26
13:45	0	17	229	2	0	5	182	7	0	8	9	4	0	8	9	20
14:00	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0

Study Name TC--32041__Wainscott__Loc_2 - Thursday
Start Date 08-17-2017
Start Time 7:00
Site Code Loc. 2. Montauk Hwy @ Wainscott Stone Road

	Montauk Hwy Eastbound				Montauk Hwy Westbound				Wainscott Stone Rd Northbound				Wainscott Stone Rd Southbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00	0	0	202	0	1	10	148	0	0	2	0	6	0	2	0	1
7:15	0	0	225	1	0	5	169	0	0	0	0	9	0	0	0	0
7:30	0	0	212	1	0	11	210	0	0	0	0	17	0	1	0	0
7:45	0	0	216	0	0	20	223	0	0	0	0	15	0	0	0	0
8:00	0	0	215	2	0	23	191	0	0	0	0	12	0	0	0	0
8:15	0	0	216	1	0	28	230	0	0	0	1	24	0	0	0	0
8:30	0	0	198	0	0	52	197	1	0	0	0	24	0	0	0	0
8:45	0	0	201	1	0	59	214	0	0	0	0	63	0	0	0	0
9:00	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0
16:00	0	0	222	2	0	48	203	0	0	2	0	69	0	2	0	0
16:15	0	0	210	1	0	56	208	0	0	2	0	64	0	0	0	0
16:30	0	1	218	0	0	48	191	1	0	1	0	85	0	0	0	0
16:45	0	2	190	1	0	60	183	0	0	1	1	97	0	0	1	0
17:00	0	0	171	2	0	57	175	1	0	1	0	105	0	0	1	0
17:15	0	0	174	0	0	58	200	0	0	2	0	118	0	2	0	0
17:30	0	0	187	2	0	56	202	0	0	2	0	84	0	0	0	0
17:45	0	1	185	1	0	49	194	0	0	3	0	108	0	1	0	0
18:00	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0

Study Name TC--32041__Wainscott__Loc_2 - Saturday
Start Date 08-19-2017
Start Time 11:00
Site Code Loc. 2. Montauk Hwy @ Wainscott Stone Road

	Montauk Hwy Eastbound				Montauk Hwy Westbound				Wainscott Stone Rd Northbound				Wainscott Stone Rd Southbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00	0	0	234	0	0	37	216	0	0	4	0	69	0	0	0	0
11:15	0	0	244	1	0	43	207	2	0	7	0	75	0	0	0	2
11:30	0	1	211	0	0	43	215	0	0	0	0	88	0	4	0	1
11:45	0	0	208	1	0	65	198	0	0	3	0	82	0	0	0	2
12:00	0	0	220	4	0	42	182	0	0	3	0	103	0	0	0	0
12:15	0	1	212	2	0	36	193	0	0	4	0	120	0	0	0	2
12:30	0	0	226	3	0	33	212	0	0	2	0	75	0	0	0	2
12:45	0	0	239	2	0	52	202	0	0	2	0	76	0	0	0	2
13:00	0	1	238	0	0	32	174	0	0	3	0	76	0	1	0	1
13:15	0	0	242	3	0	30	208	0	0	2	0	88	0	0	0	0
13:30	0	0	244	3	0	22	175	0	0	1	0	59	0	1	2	2
13:45	0	0	238	1	0	33	188	0	0	4	0	55	0	0	0	0
14:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name TC--32041__Wainscott__Loc_3 - Thursday
Start Date 08-17-2017
Start Time 7:00
Site Code Loc. 3. Industrial Rd @ Wainscott N.W. Road

	Industrial Rd Eastbound				Industrial Rd Westbound				Wainscott NW Rd Northbound				E.H Airport Access Southbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00	0	0	0	3	0	11	3	0	0	5	0	11	0	0	0	0
7:15	0	0	3	2	0	9	2	1	0	6	0	11	0	0	1	0
7:30	0	0	1	4	0	8	3	0	0	3	0	4	0	0	0	0
7:45	0	0	6	4	0	21	9	1	1	3	0	15	0	0	0	0
8:00	0	0	0	2	0	16	3	0	0	4	0	17	0	0	0	0
8:15	0	0	2	4	0	14	1	1	0	3	1	11	0	0	0	0
8:30	0	0	5	5	0	30	1	1	0	2	0	12	0	0	0	0
8:45	0	0	5	2	0	22	5	0	0	4	0	27	0	0	0	0
9:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
16:00	0	0	6	4	0	14	7	0	0	0	0	17	0	0	1	0
16:15	0	0	4	2	0	24	4	1	0	2	0	13	0	1	1	1
16:30	0	0	1	4	0	22	2	0	0	0	0	21	0	0	1	0
16:45	0	0	2	2	0	27	3	0	0	4	1	24	0	0	0	1
17:00	0	0	2	6	0	29	8	2	0	0	1	21	0	0	0	0
17:15	0	0	1	3	0	32	4	0	0	1	1	29	0	1	2	0
17:30	0	0	4	7	0	29	7	0	1	3	0	28	0	0	0	0
17:45	0	0	1	0	0	13	5	0	0	0	0	18	0	0	1	0
18:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

Study Name TC--32041__Wainscott__Loc_3 - Saturday
Start Date 08-19-2017
Start Time 11:00
Site Code Loc. 3. Industrial Rd @ Wainscott N.W. Road

	Indutrial Rd Eastbound				Industrial Rd Westbound				Wainscott NW Rd Northbound				E.H. Airport Access Southbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00	0	0	4	0	0	24	3	1	0	0	0	20	0	0	1	0
11:15	0	0	2	3	0	25	2	1	0	2	1	30	0	0	0	0
11:30	0	0	2	1	0	23	2	0	0	3	0	15	0	0	0	0
11:45	0	0	3	1	0	21	0	0	1	0	1	26	0	1	1	0
12:00	0	0	4	2	0	29	1	0	0	3	2	34	0	0	0	0
12:15	0	0	4	2	0	19	2	0	0	3	0	16	0	1	0	0
12:30	0	0	2	1	0	26	1	0	0	1	1	23	0	0	1	0
12:45	0	0	3	2	0	27	0	0	0	1	1	21	0	0	1	0
13:00	0	0	3	2	1	25	3	0	0	2	0	29	0	0	0	0
13:15	0	0	4	2	0	21	3	0	0	4	0	16	0	0	0	0
13:30	0	0	3	2	0	19	2	0	0	0	0	18	0	0	2	0
13:45	0	0	0	1	0	12	4	0	0	1	2	15	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name TC--32041__Wainscott__Loc_4 - Thursday
Start Date 08-17-2017
Start Time 7:00
Site Code Loc. 4. Industrial Rd /Dwy @ Daniels Hole Road

	ARF Access Eastbound				Industrial Rd Westbound				Danials Hole Rd Northbound				Danials Hole Rd Southbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00	0	9	0	1	0	0	0	0	0	6	4	0	0	0	1	11
7:15	0	11	0	0	0	0	0	0	0	6	1	0	0	0	1	7
7:30	0	4	0	0	0	0	0	0	0	3	10	0	0	0	3	11
7:45	0	12	0	3	0	0	0	0	0	7	14	1	0	1	5	20
8:00	0	12	1	0	0	0	0	0	0	6	5	2	0	1	4	16
8:15	0	10	1	0	0	0	0	0	0	5	20	1	0	4	4	11
8:30	0	15	1	5	0	0	0	0	0	11	15	0	0	1	4	25
8:45	0	29	1	6	0	2	0	0	0	17	11	2	0	3	7	22
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	16	0	5	0	1	0	1	0	10	12	1	0	0	17	12
16:15	0	17	2	4	0	0	3	1	0	5	16	0	0	1	13	22
16:30	0	20	0	1	0	1	3	2	0	3	11	0	0	1	10	15
16:45	0	26	0	1	0	1	0	5	0	8	22	0	0	0	25	18
17:00	0	26	0	1	0	1	3	3	0	10	17	0	0	1	8	25
17:15	0	31	0	2	0	0	1	2	0	9	11	0	0	0	16	23
17:30	0	32	0	1	0	0	1	1	0	12	22	0	0	0	9	25
17:45	0	20	0	2	0	0	0	1	0	5	23	0	0	0	11	8
18:00	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0

Study Name TC--32041__Wainscott__Loc_4 - Saturday
Start Date 08-19-2017
Start Time 11:00
Site Code Loc. 4. Industrial Rd/ARF Drwy @ Daniels Hole

	Industrial Rd Eastbound				ARF Access Rd Westbound				Daniels Hole Rd Northbound				Daniels Hole Rd Southbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00	0	19	0	4	0	0	2	2	0	4	17	2	0	4	14	22
11:15	0	20	2	3	0	0	0	0	0	5	7	1	0	2	18	24
11:30	0	20	0	1	0	0	0	0	0	0	11	2	0	2	10	22
11:45	0	23	0	4	0	2	0	1	0	3	19	0	0	0	14	21
12:00	0	30	2	9	0	2	1	1	0	1	18	2	0	1	22	29
12:15	0	20	1	3	0	0	2	1	0	3	5	1	0	0	11	17
12:30	0	21	1	3	0	4	2	0	0	1	9	1	0	0	17	26
12:45	0	13	0	4	0	0	1	0	0	2	17	0	0	1	10	22
13:00	1	29	4	5	0	0	1	0	0	4	5	0	0	0	12	24
13:15	1	17	4	0	0	1	6	1	0	3	4	2	0	1	6	20
13:30	0	16	3	3	0	2	0	2	0	2	7	0	0	1	6	16
13:45	0	10	4	2	0	0	1	1	0	2	14	4	0	2	9	14
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

Study Name TC--32041__Wainscott__Loc_5 - Thursday
Start Date 08-17-2017
Start Time 7:00
Site Code Loc. 5. Old Montauk Hwy @ Cement Yard Drway

	Cement Plant Access Rd Southbound			Old Montauk Hwy Northeastbound			Old Montauk Hwy Southwestbound		
Start Time	U-Turn	Hard Left	Bear Right	U-Turn	Bear Left	Thru	U-Turn	Thru	Hard Right
7:00	0	0	0	0	4	3	0	4	0
7:15	0	1	0	0	2	3	0	2	1
7:30	0	0	1	0	1	2	0	7	0
7:45	0	1	2	0	2	4	0	10	1
8:00	0	0	1	0	0	1	0	4	0
8:15	0	0	2	0	1	2	0	2	0
8:30	0	0	1	0	0	2	0	6	0
8:45	0	0	0	1	0	4	0	5	0
9:00	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	1	2	0	5	0
16:15	0	0	0	0	1	2	0	3	0
16:30	0	0	0	0	1	1	0	9	1
16:45	0	0	1	0	0	1	0	4	0
17:00	0	0	3	1	0	1	0	4	1
17:15	0	0	1	0	0	2	0	2	0
17:30	0	0	1	1	0	1	0	4	1
17:45	0	0	0	0	0	1	0	2	0
18:00	0	0	0	0	0	0	0	0	0

DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Wainscott NW Rd
E-W Street: Montauk Hwy
DAY OF WK : Thursday

Movements by: Primary

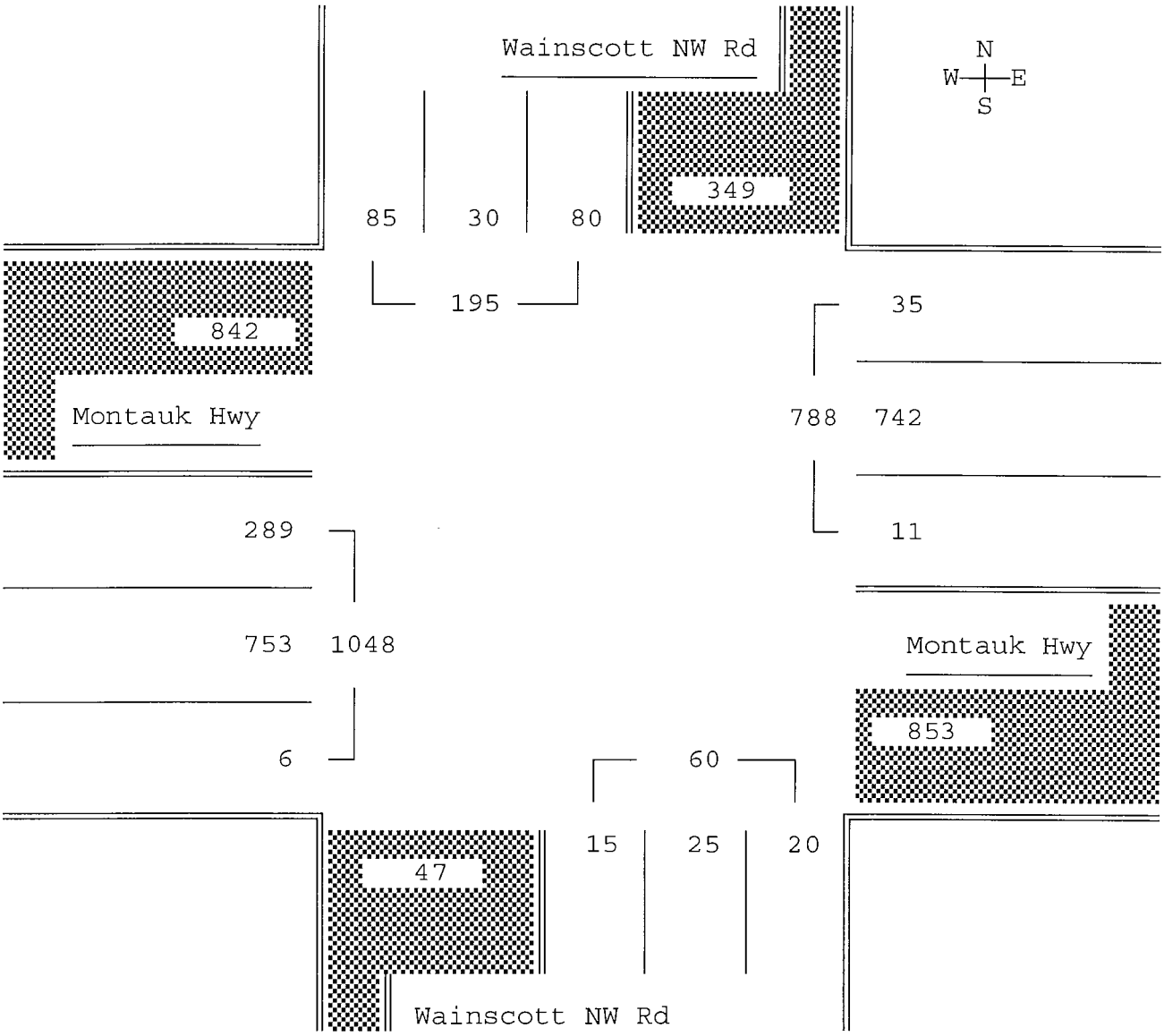
PAGE: 1
FILE: None
DATE: 8/17/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:45 AM - 8:45 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:45 AM	0.84	85	30	80	195	44	15	41
East	7:45 AM	0.97	35	742	11	788	4	94	1
South	7:45 AM	0.79	20	25	15	60	33	42	25
West	7:45 AM	0.60	6	753	289	1048	1	72	28

Entire Intersection

North	7:45 AM	0.84	85	30	80	195	44	15	41
East		0.97	35	742	11	788	4	94	1
South		0.79	20	25	15	60	33	42	25
West		0.60	6	753	289	1048	1	72	28



DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Wainscott NW Rd
E-W Street: Montauk Hwy
DAY OF WK : Thursday

Movements by: Primary

PAGE: 1
FILE: None
DATE: 8/17/17

Time	From North			From East			From South			From West			Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
4:00 PM	19	5	10	2	201	7	11	7	6	2	180	7	457
4:15	17	7	4	2	194	5	8	6	4	6	215	9	477
4:30	18	5	12	6	178	9	9	6	5	3	198	7	456
4:45	14	8	10	4	183	8	9	9	6	2	195	13	461
HR TOTAL	68	25	36	14	756	29	37	28	21	13	788	36	1851
5:00 PM	24	8	20	5	177	5	9	9	3	5	132	8	405
5:15	30	8	10	1	205	5	2	13	6	0	175	12	467
5:30	28	6	12	1	202	2	11	6	4	3	159	12	446
5:45	12	6	13	3	190	5	6	9	7	2	164	9	426
HR TOTAL	94	28	55	10	774	17	28	37	20	10	630	41	1744
DAY TOTAL	162	53	91	24	1530	46	65	65	41	23	1418	77	3595

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:45 PM	0.86	96	30	52	178	54	17	29
East	5:00 PM	0.95	10	774	17	801	1	97	2
South	4:45 PM	0.91	31	37	19	87	36	43	22
West	4:00 PM	0.91	13	788	36	837	2	94	4

Entire Intersection

North	4:00 PM	0.92	68	25	36	129	53	19	28
East		0.95	14	756	29	799	2	95	4
South		0.90	37	28	21	86	43	33	24
West		0.91	13	788	36	837	2	94	4

DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Wainscott NW Rd
E-W Street: Montauk Hwy
DAY OF WK : Thursday

Movements by: Primary

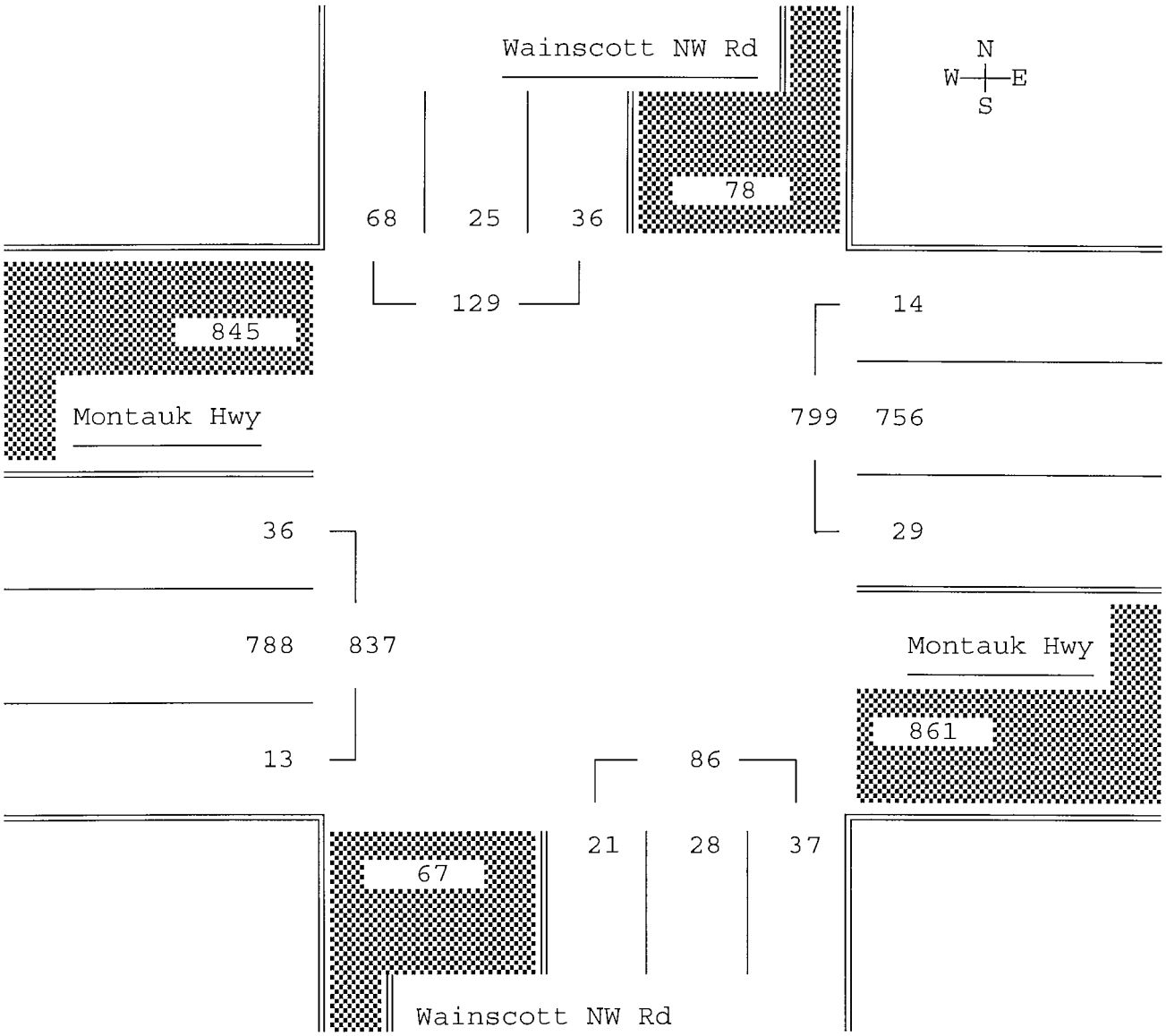
PAGE: 1
FILE: None
DATE: 8/17/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 5:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:00 PM	0.92	68	25	36	129	53	19	28
East	4:00 PM	0.95	14	756	29	799	2	95	4
South	4:00 PM	0.90	37	28	21	86	43	33	24
West	4:00 PM	0.91	13	788	36	837	2	94	4

Entire Intersection

North	4:00 PM	0.92	68	25	36	129	53	19	28
East		0.95	14	756	29	799	2	95	4
South		0.90	37	28	21	86	43	33	24
West		0.91	13	788	36	837	2	94	4



DUNN ENGINEERING ASSOCIATES

Site Code :

N-S Street: Wainscott NW Rd

E-W Street: Montauk Hwy

DAY OF WK : Saturday

Movements by: Primary

FILE: None

DATE: 8/19/17

Time	From North			From East			From South			From West			Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
11:00 AM	25	15	16	13	189	4	11	8	8	6	203	9	507
11:15	11	12	15	7	191	13	12	10	6	3	212	13	505
11:30	15	9	21	10	178	10	7	12	8	0	202	10	482
11:45	26	11	17	15	179	4	10	15	10	4	169	16	476
HR TOTAL	77	47	69	45	737	31	40	45	32	13	786	48	1970
12:00 PM	33	13	13	14	179	8	13	15	7	2	199	10	506
12:15	14	10	15	12	184	9	7	18	10	5	186	10	480
12:30	29	15	24	8	192	7	5	8	8	1	191	17	505
12:45	21	14	20	5	176	12	11	12	6	3	214	14	508
HR TOTAL	97	52	72	39	731	36	36	53	31	11	790	51	1999
1:00 PM	28	10	18	11	156	10	6	10	11	2	209	23	494
1:15	26	12	16	10	184	4	8	10	5	2	215	12	504
1:30	26	8	12	9	172	9	8	11	5	3	227	5	495
1:45	20	9	8	7	182	5	4	9	8	2	229	17	500
HR TOTAL	100	39	54	37	694	28	26	40	29	9	880	57	1993
DAY TOTAL	274	138	195	121	2162	95	102	138	92	33	2456	156	5962

PEAK PERIOD ANALYSIS FOR THE PERIOD: 11:00 AM - 2:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	12:30 PM	0.86	104	51	78	233	45	22	33
East	11:00 AM	0.96	45	737	31	813	6	91	4
South	11:30 AM	0.94	37	60	35	132	28	45	27
West	1:00 PM	0.95	9	880	57	946	1	93	6

Entire Intersection

North	12:30 PM	0.86	104	51	78	233	45	22	33
East		0.94	34	708	33	775	4	91	4
South		0.86	30	40	30	100	30	40	30
West		0.96	8	829	66	903	1	92	7

DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Wainscott NW Rd
E-W Street: Montauk Hwy
DAY OF WK : Saturday

Movements by: Primary

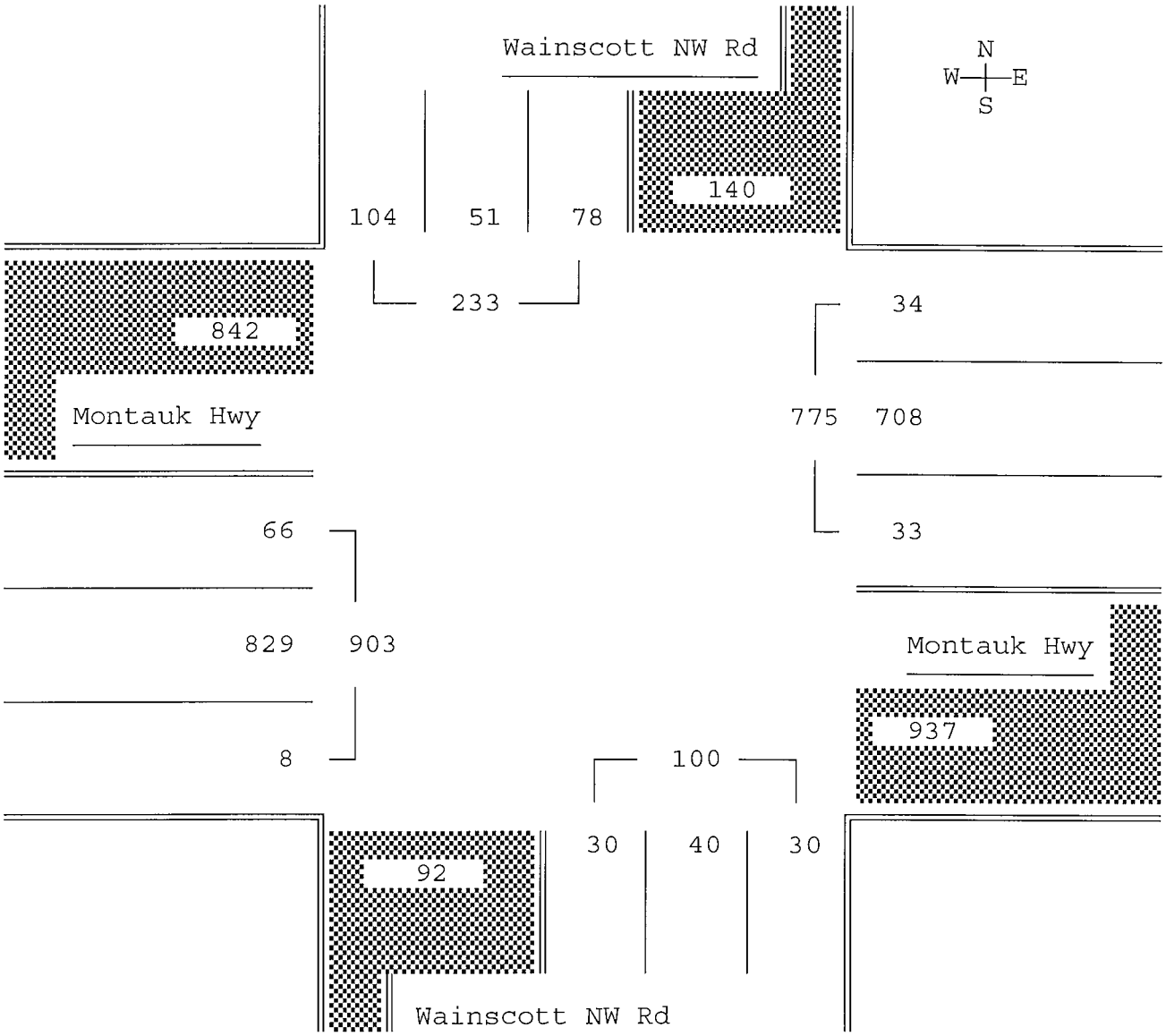
PAGE: 1
FILE: None
DATE: 8/19/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 12:30 PM - 1:30 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	12:30 PM	0.86	104	51	78	233	45	22	33
East	12:30 PM	0.94	34	708	33	775	4	91	4
South	12:30 PM	0.86	30	40	30	100	30	40	30
West	12:30 PM	0.96	8	829	66	903	1	92	7

Entire Intersection

North	12:30 PM	0.86	104	51	78	233	45	22	33
East		0.94	34	708	33	775	4	91	4
South		0.86	30	40	30	100	30	40	30
West		0.96	8	829	66	903	1	92	7



DUNN ENGINEERING ASSOCIATES

Site Code :

N-S Street: Wainscott NW Rd

E-W Street: Industrial Rd

DAY OF WK : Thursday

Movements by: Primary

PAGE: 1

FILE: None

DATE: 8/17/17

Time Begin	From North RT	From North THRU	From North LT	From East RT	From East THRU	From East LT	From South RT	From South THRU	From South LT	From West RT	From West THRU	From West LT	Vehicle Total
7:00 AM	0	0	0	0	3	11	11	0	5	3	0	0	33
7:15	0	1	0	1	2	9	11	0	6	2	3	0	35
7:30	0	0	0	0	3	8	4	0	3	4	1	0	23
7:45	0	0	0	1	9	21	15	0	3	4	6	0	59
HR TOTAL	0	1	0	2	17	49	41	0	17	13	10	0	150
8:00 AM	0	0	0	0	3	16	17	0	4	2	0	0	42
8:15	0	0	0	1	1	14	11	1	3	4	2	0	37
8:30	0	0	0	1	1	30	12	0	2	5	5	0	56
8:45	0	0	0	0	5	22	27	0	4	2	5	0	65
HR TOTAL	0	0	0	2	10	82	67	1	13	13	12	0	200
DAY TOTAL	0	1	0	4	27	131	108	1	30	26	22	0	350

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	VOLUMES Thru	VOLUMES Left	VOLUMES Total	PERCENTS Right	PERCENTS Thru	PERCENTS Left
North	7:00 AM	0.25	0	1	0	1	0	%100	0
East	7:45 AM	0.77	3	14	81	98	3	14	83
South	8:00 AM	0.65	67	1	13	81	83	1	16
West	7:45 AM	0.70	15	13	0	28	54	46	0

Entire Intersection

North	8:00 AM	0.00	0	0	0	0	0	0	0
East		0.73	2	10	82	94	2	11	87
South		0.65	67	1	13	81	83	1	16
West		0.63	13	12	0	25	52	48	0

DUNN ENGINEERING ASSOCIATES

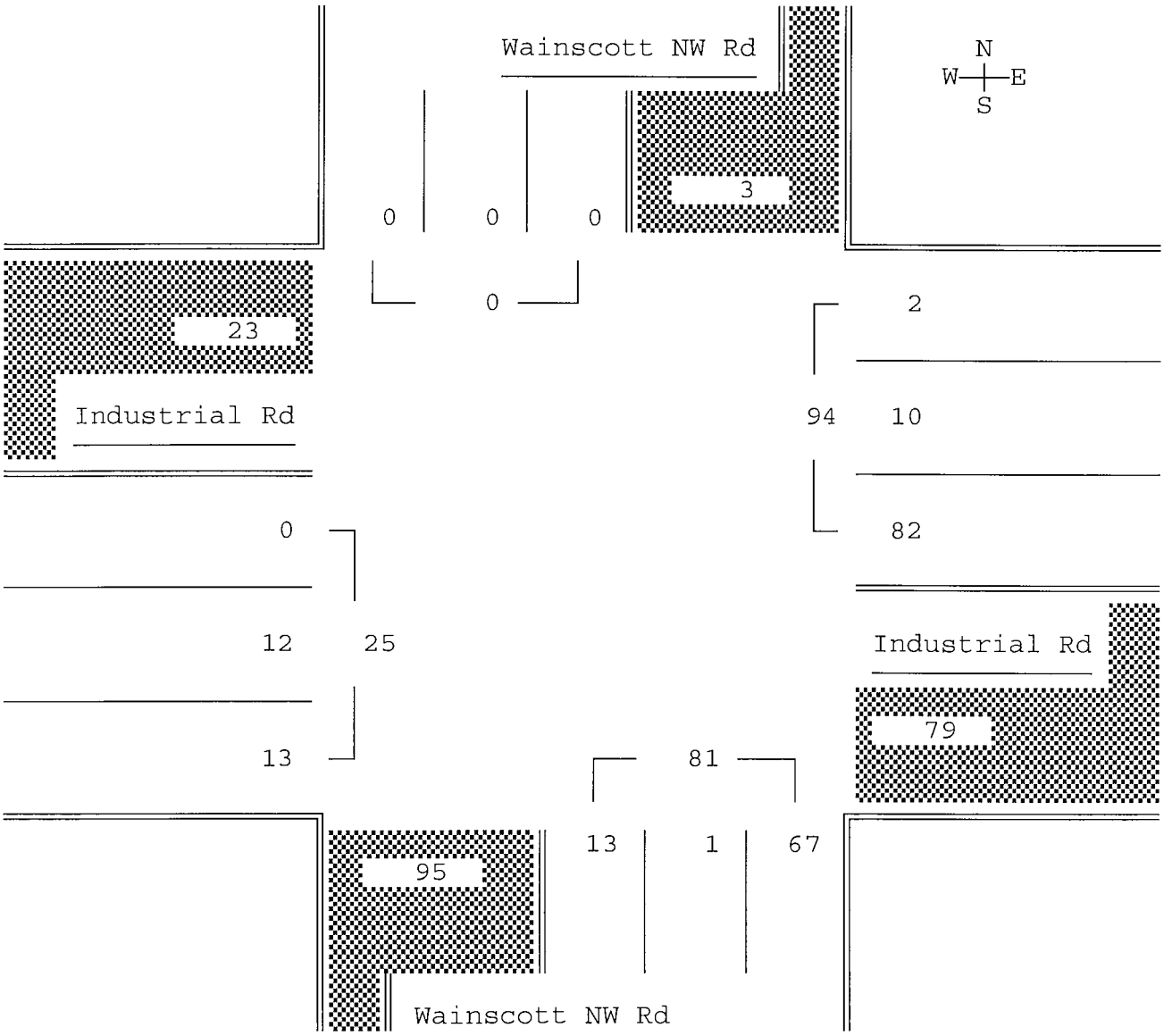
Site Code :
N-S Street: Wainscott NW Rd
E-W Street: Industrial Rd
DAY OF WK : Thursday

Movements by: Primary

PAGE: 1
FILE: None
DATE: 8/17/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 8:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	12:00 AM	0.00	0	0	0	0	0	0	0
East	8:00 AM	0.73	2	10	82	94	2	11	87
South	8:00 AM	0.65	67	1	13	81	83	1	16
West	8:00 AM	0.63	13	12	0	25	52	48	0
Entire Intersection									
North	8:00 AM	0.00	0	0	0	0	0	0	0
East		0.73	2	10	82	94	2	11	87
South		0.65	67	1	13	81	83	1	16
West		0.63	13	12	0	25	52	48	0



DUNN ENGINEERING ASSOCIATES

Site Code :

N-S Street: Wainscott NW Rd

E-W Street: Industrial Rd

DAY OF WK : Thursday

Movements by: Primary

PAGE: 1

FILE: None

DATE: 8/17/17

Time	From North			From East			From South			From West			Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
4:00 PM	0	1	0	0	7	14	17	0	0	4	6	0	49
4:15	1	1	1	1	4	24	13	0	2	2	4	0	53
4:30	0	1	0	0	2	22	21	0	0	4	1	0	51
4:45	1	0	0	0	3	27	24	1	4	2	2	0	64
HR TOTAL	2	3	1	1	16	87	75	1	6	12	13	0	217
5:00 PM	0	0	0	2	8	29	21	1	0	6	2	0	69
5:15	0	2	1	0	4	32	29	1	1	3	1	0	74
5:30	0	0	0	0	7	29	28	0	3	7	4	0	78
5:45	0	1	0	0	5	13	18	0	0	0	1	0	38
HR TOTAL	0	3	1	2	24	103	96	2	4	16	8	0	259
DAY TOTAL	2	6	2	3	40	190	171	3	10	28	21	0	476

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION	START	PEAK HR	..... VOLUMES				.... PERCENTS ...		
FROM	PEAK HOUR	FACTOR	Right	Thru	Left	Total	Right	Thru	Left
North	4:00 PM	0.50	2	3	1	6	33	50	17
East	4:45 PM	0.90	2	22	117	141	1	16	83
South	4:45 PM	0.91	102	3	8	113	90	3	7
West	4:45 PM	0.61	18	9	0	27	67	33	0

Entire Intersection

North	4:45 PM	0.33	1	2	1	4	25	50	25
East		0.90	2	22	117	141	1	16	83
South		0.91	102	3	8	113	90	3	7
West		0.61	18	9	0	27	67	33	0

DUNN ENGINEERING ASSOCIATES

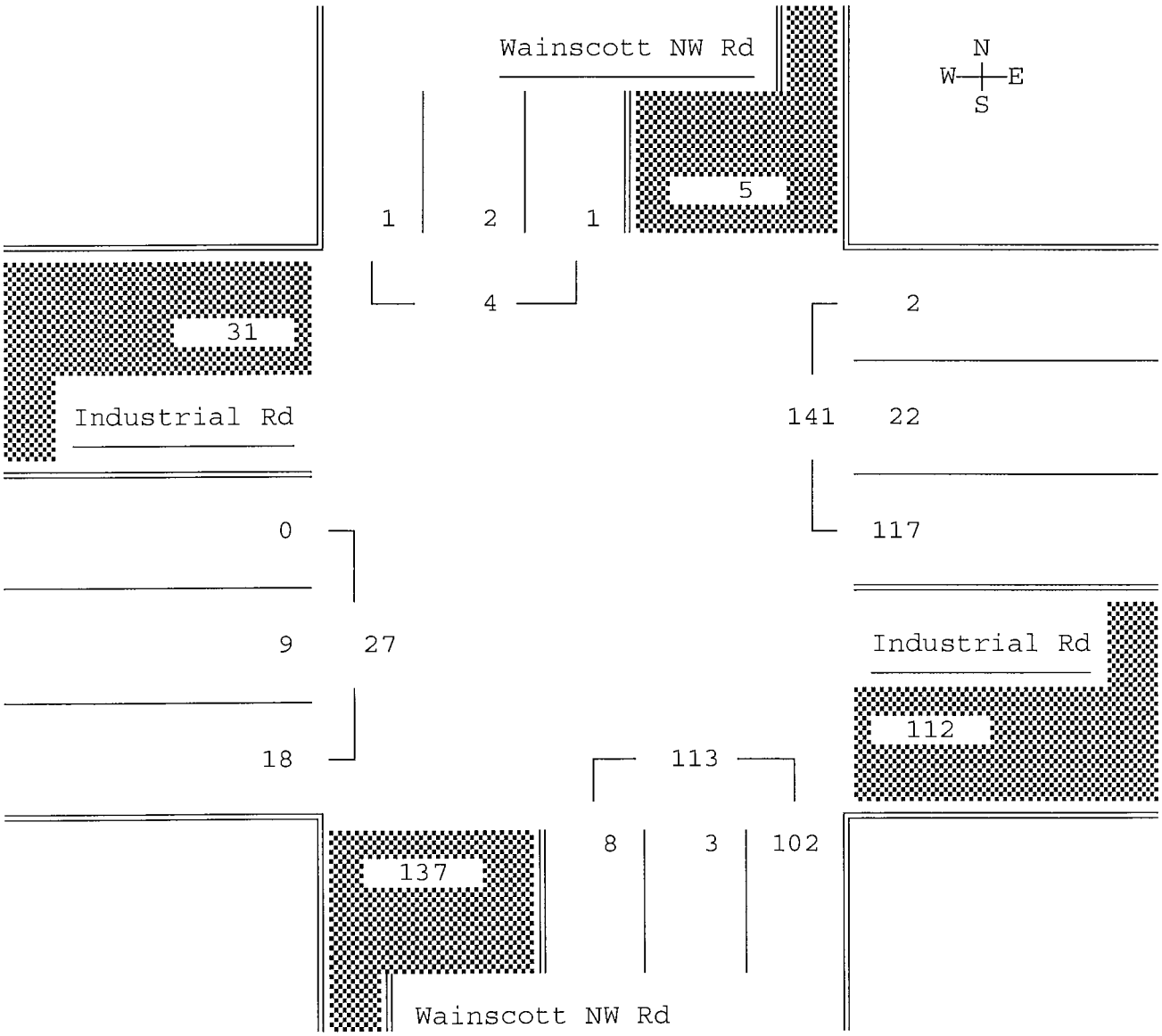
Site Code :
N-S Street: Wainscott NW Rd
E-W Street: Industrial Rd
DAY OF WK : Thursday

Movements by: Primary

PAGE: 1
FILE: None
DATE: 8/17/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:45 PM - 5:45 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:45 PM	0.33	1	2	1	4	25	50	25
East	4:45 PM	0.90	2	22	117	141	1	16	83
South	4:45 PM	0.91	102	3	8	113	90	3	7
West	4:45 PM	0.61	18	9	0	27	67	33	0
Entire Intersection									
North	4:45 PM	0.33	1	2	1	4	25	50	25
East		0.90	2	22	117	141	1	16	83
South		0.91	102	3	8	113	90	3	7
West		0.61	18	9	0	27	67	33	0



DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Wainscott NW Rd
E-W Street: Industrial Rd
DAY OF WK : Saturday

Movements by: Primary

PAGE: 1
FILE: None
DATE: 8/19/17

Time	From North			From East			From South			From West			Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
11:00 AM	0	1	0	1	3	24	20	0	0	0	4	0	53
11:15	0	0	0	1	2	25	30	1	2	3	2	0	66
11:30	0	0	0	0	2	23	15	0	3	1	2	0	46
11:45	0	1	1	0	0	21	26	1	0	1	3	0	54
HR TOTAL	0	2	1	2	7	93	91	2	5	5	11	0	219
12:00 PM	0	0	0	0	1	29	34	2	3	2	4	0	75
12:15	0	0	1	0	2	19	16	0	3	2	4	0	47
12:30	0	1	0	0	1	26	23	1	1	1	2	0	56
12:45	0	1	0	0	0	27	21	1	1	2	3	0	56
HR TOTAL	0	2	1	0	4	101	94	4	8	7	13	0	234
1:00 PM	0	0	0	0	3	25	29	0	2	2	3	0	64
1:15	0	0	0	0	3	21	16	0	4	2	4	0	50
1:30	0	2	0	0	2	19	18	0	0	2	3	0	46
1:45	0	0	0	0	4	12	15	2	1	1	0	0	35
HR TOTAL	0	2	0	0	12	77	78	2	7	7	10	0	195
DAY TOTAL	0	6	2	2	23	271	263	8	20	19	34	0	648

PEAK PERIOD ANALYSIS FOR THE PERIOD: 11:00 AM - 2:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	11:45 AM	0.50	0	2	2	4	0	50	50
East	12:30 PM	0.95	0	7	99	106	0	7	93
South	11:15 AM	0.75	105	4	8	117	90	3	7
West	12:45 PM	0.88	8	13	0	21	38	62	0

Entire Intersection

North	11:15 AM	0.25	0	1	1	2	0	50	50
East		0.87	1	5	98	104	1	5	94
South		0.75	105	4	8	117	90	3	7
West		0.75	7	11	0	18	39	61	0

DUNN ENGINEERING ASSOCIATES

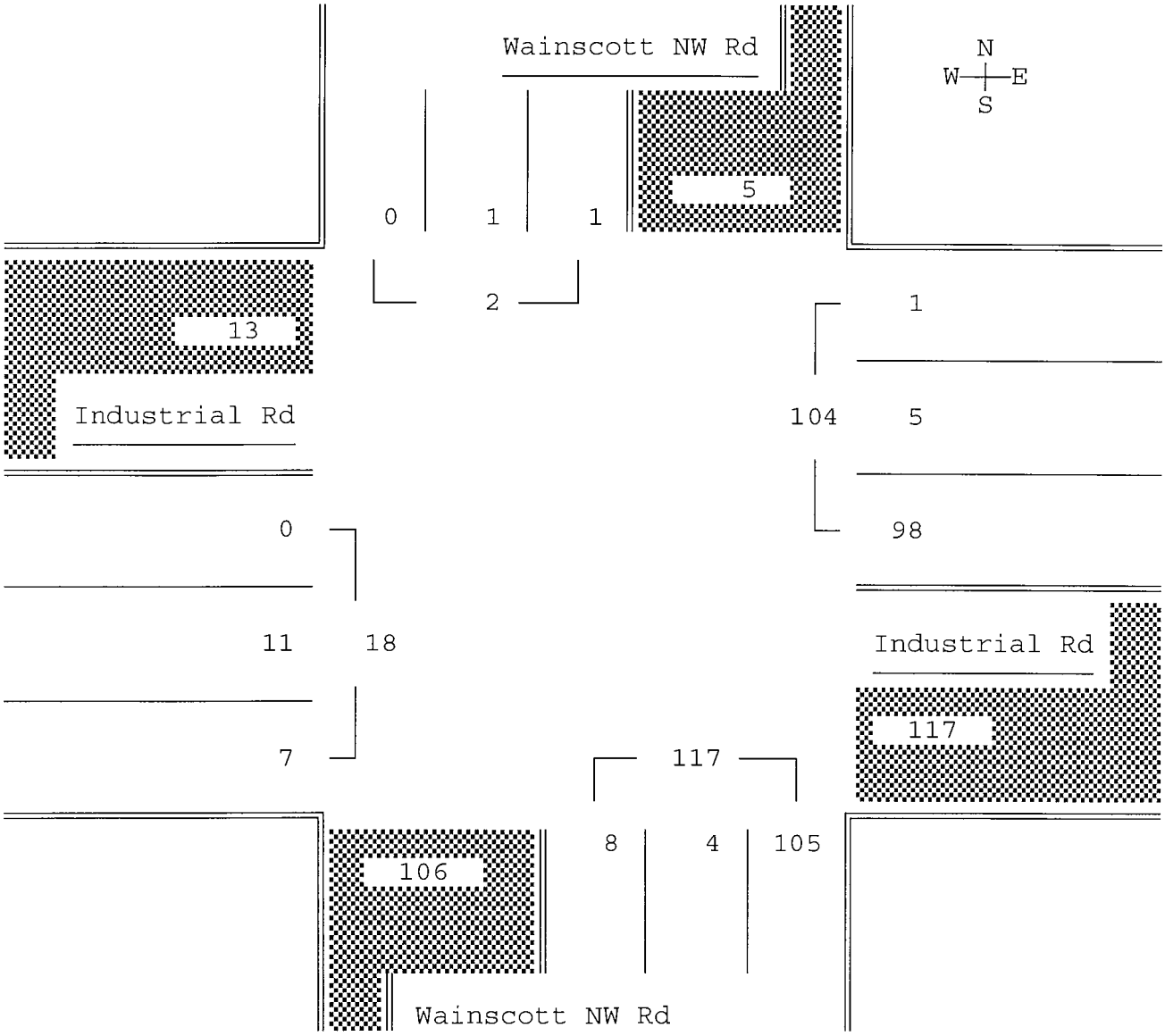
Site Code :
N-S Street: Wainscott NW Rd
E-W Street: Industrial Rd
DAY OF WK : Saturday

Movements by: Primary

PAGE: 1
FILE: None
DATE: 8/19/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 11:15 AM - 12:15 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	11:15 AM	0.25	0	1	1	2	0	50	50
East	11:15 AM	0.87	1	5	98	104	1	5	94
South	11:15 AM	0.75	105	4	8	117	90	3	7
West	11:15 AM	0.75	7	11	0	18	39	61	0
Entire Intersection									
North	11:15 AM	0.25	0	1	1	2	0	50	50
East		0.87	1	5	98	104	1	5	94
South		0.75	105	4	8	117	90	3	7
West		0.75	7	11	0	18	39	61	0



DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Daniels Hole Rd
E-W Street: Industrial Rd
DAY OF WK : Thursday

Movements by: Primary

PAGE: 1
FILE: None
DATE: 8/17/17

Time	From North			From East			From South			From West			Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
7:00 AM	11	1	0	0	0	0	0	4	6	1	0	9	32
7:15	7	1	0	0	0	0	0	1	6	0	0	11	26
7:30	11	3	0	0	0	0	0	10	3	0	0	4	31
7:45	20	5	1	0	0	0	1	14	7	3	0	12	63
HR TOTAL	49	10	1	0	0	0	1	29	22	4	0	36	152
8:00 AM	16	4	1	0	0	0	2	5	6	0	1	12	47
8:15	11	4	4	0	0	0	1	20	5	0	1	10	56
8:30	25	4	1	0	0	0	0	15	11	5	1	15	77
8:45	22	7	3	0	2	0	2	11	17	6	1	29	100
HR TOTAL	74	19	9	0	2	0	5	51	39	11	4	66	280
DAY TOTAL	123	29	10	0	2	0	6	80	61	15	4	102	432

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	8:00 AM	0.80	74	19	9	102	73	19	9
East	8:00 AM	0.25	0	2	0	2	0	%100	0
South	8:00 AM	0.79	5	51	39	95	5	54	41
West	8:00 AM	0.56	11	4	66	81	14	5	81

Entire Intersection

North	8:00 AM	0.80	74	19	9	102	73	19	9
East		0.25	0	2	0	2	0	%100	0
South		0.79	5	51	39	95	5	54	41
West		0.56	11	4	66	81	14	5	81

DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Daniels Hole Rd
E-W Street: Industrial Rd
DAY OF WK : Thursday

Movements by: Primary

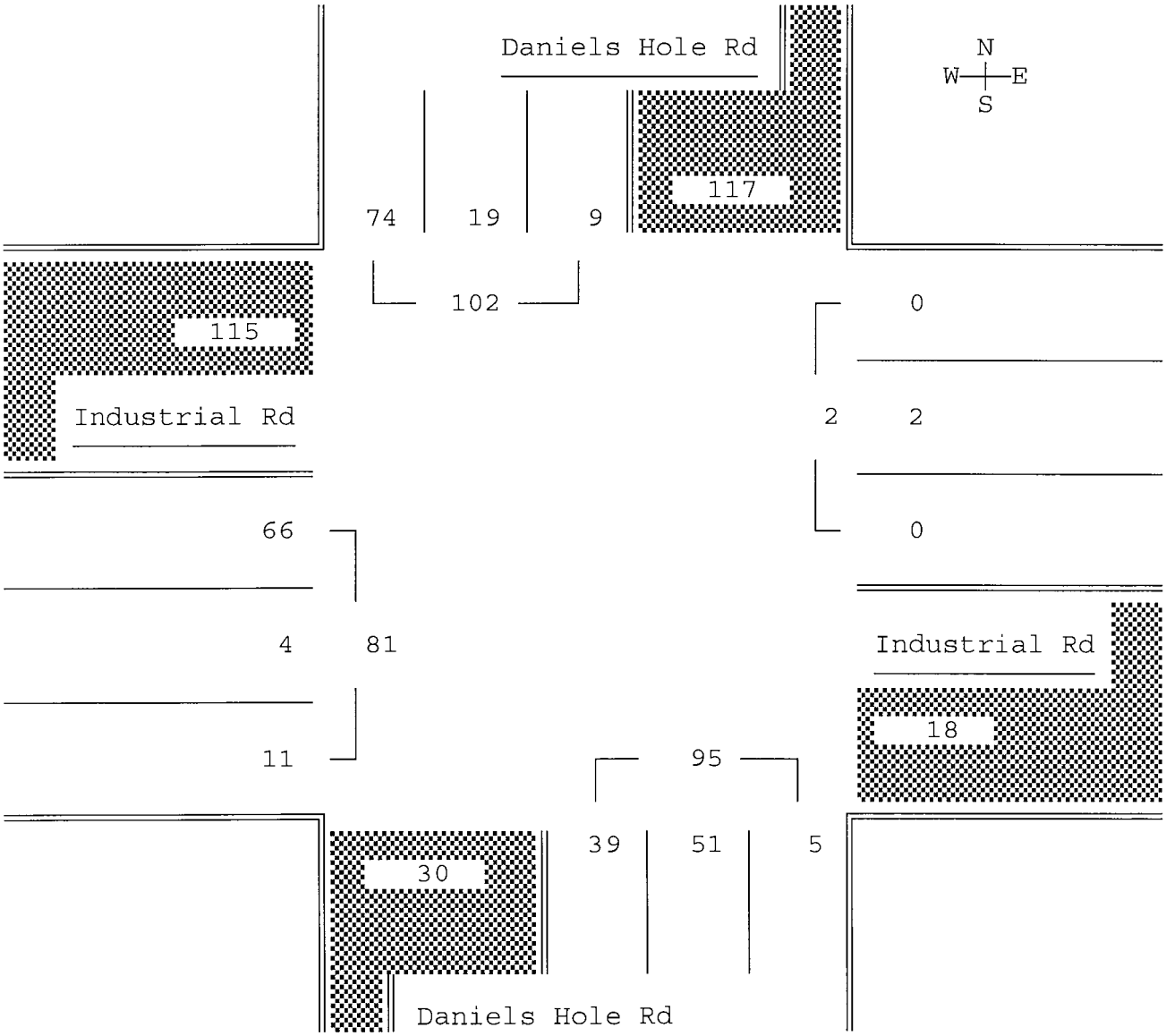
PAGE: 1
FILE: None
DATE: 8/17/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 8:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	8:00 AM	0.80	74	19	9	102	73	19	9
East	8:00 AM	0.25	0	2	0	2	0	%100	0
South	8:00 AM	0.79	5	51	39	95	5	54	41
West	8:00 AM	0.56	11	4	66	81	14	5	81

Entire Intersection

North	8:00 AM	0.80	74	19	9	102	73	19	9
East		0.25	0	2	0	2	0	%100	0
South		0.79	5	51	39	95	5	54	41
West		0.56	11	4	66	81	14	5	81



DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Daniels Hole Rd
E-W Street: Industrial Rd
DAY OF WK : Thursday

Movements by: Primary

PAGE: 1
FILE: None
DATE: 8/17/17

Time Begin	From North RT	From North THRU	From North LT	From East RT	From East THRU	From East LT	From South RT	From South THRU	From South LT	From West RT	From West THRU	From West LT	Vehicle Total
4:00 PM	12	17	0	1	0	1	0	10	10	5	0	16	72
4:15	22	13	1	1	3	0	0	5	5	4	2	17	73
4:30	15	10	1	2	3	1	0	3	3	1	0	20	59
4:45	18	25	0	5	0	1	0	8	8	1	0	26	92
HR TOTAL	67	65	2	9	6	3	0	26	26	11	2	79	296
5:00 PM	25	8	1	3	3	1	0	10	10	1	0	26	88
5:15	23	16	0	2	1	0	0	9	9	2	0	31	93
5:30	25	9	0	1	1	0	0	12	12	1	0	32	93
5:45	8	11	0	1	0	0	0	5	5	2	0	20	52
HR TOTAL	81	44	1	7	5	1	0	36	36	6	0	109	326
DAY TOTAL	148	109	3	16	11	4	0	62	62	17	2	188	622

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	VOLUMES Thru	VOLUMES Left	VOLUMES Total	PERCENTS Right	PERCENTS Thru	PERCENTS Left
North	4:45 PM	0.87	91	58	1	150	61	39	1
East	4:15 PM	0.82	11	9	3	23	48	39	13
South	4:45 PM	0.81	0	39	39	78	0	50	50
West	4:45 PM	0.91	5	0	115	120	4	0	96

Entire Intersection

North	4:45 PM	0.87	91	58	1	150	61	39	1
East		0.64	11	5	2	18	61	28	11
South		0.81	0	39	39	78	0	50	50
West		0.91	5	0	115	120	4	0	96

DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Daniels Hole Rd
E-W Street: Industrial Rd
DAY OF WK : Thursday

Movements by: Primary

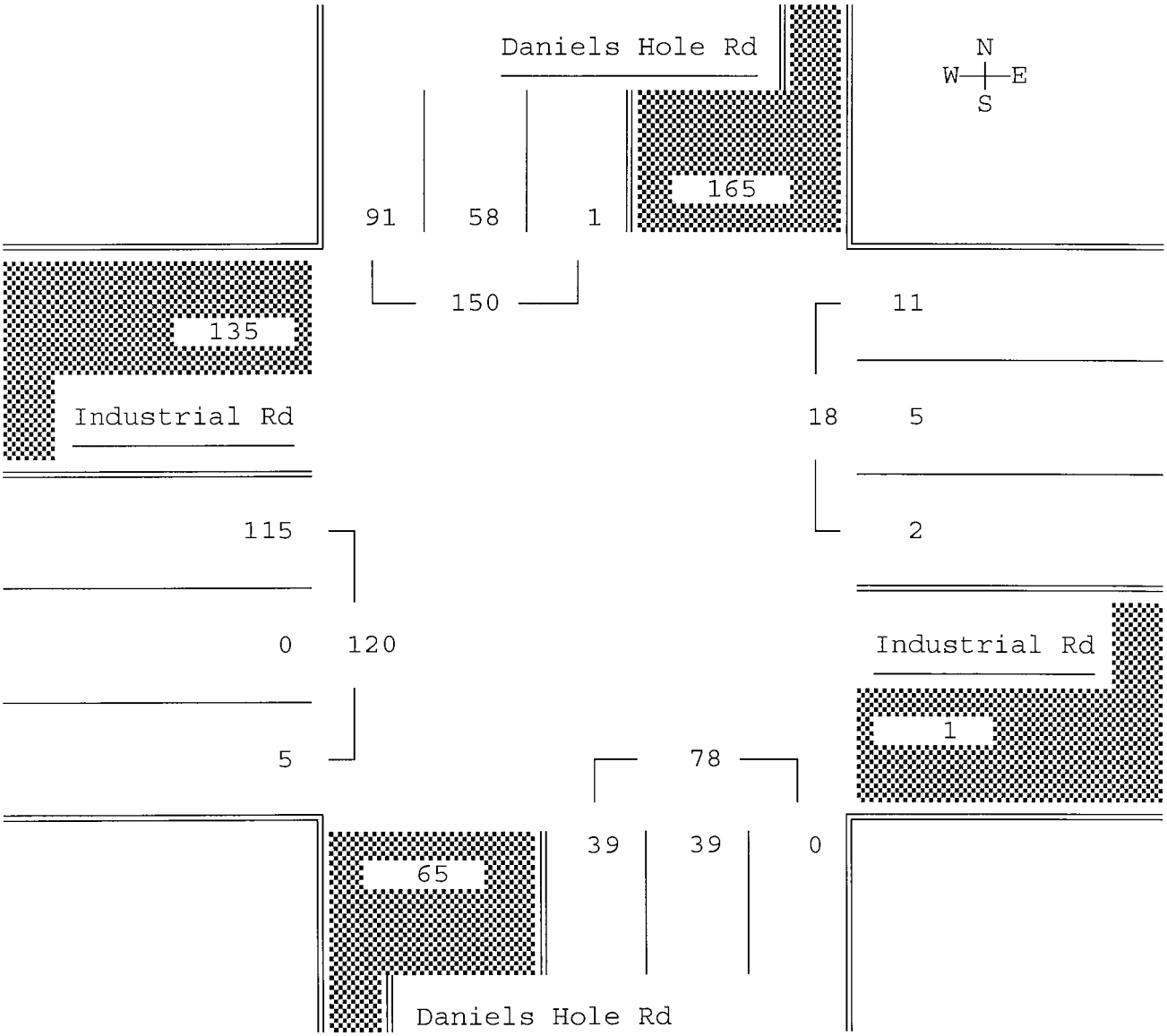
PAGE: 1
FILE: None
DATE: 8/17/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:45 PM - 5:45 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:45 PM	0.87	91	58	1	150	61	39	1
East	4:45 PM	0.64	11	5	2	18	61	28	11
South	4:45 PM	0.81	0	39	39	78	0	50	50
West	4:45 PM	0.91	5	0	115	120	4	0	96

Entire Intersection

North	4:45 PM	0.87	91	58	1	150	61	39	1
East		0.64	11	5	2	18	61	28	11
South		0.81	0	39	39	78	0	50	50
West		0.91	5	0	115	120	4	0	96



DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Daniels Hole Rd
E-W Street: Industrial Rd
DAY OF WK : Saturday

Movements by: Primary

PAGE: 1
FILE: None
DATE: 8/19/17

Time	From North			From East			From South			From West			Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
11:00 AM	22	14	4	2	2	0	2	17	4	4	0	19	90
11:15	24	18	2	0	0	0	1	7	5	3	2	20	82
11:30	22	10	2	0	0	0	2	11	0	1	0	20	68
11:45	21	14	0	1	0	2	0	19	3	4	0	23	87
HR TOTAL	89	56	8	3	2	2	5	54	12	12	2	82	327
12:00 PM	29	22	1	1	1	2	2	18	1	9	2	30	118
12:15	17	11	0	1	2	0	1	5	3	3	1	20	64
12:30	26	17	0	0	2	4	1	9	1	3	1	21	85
12:45	22	10	1	0	1	0	0	17	2	4	0	13	70
HR TOTAL	94	60	2	2	6	6	4	49	7	19	4	84	337
1:00 PM	24	12	0	0	1	0	0	5	4	5	4	29	84
1:15	20	6	1	1	6	1	2	4	3	0	4	17	65
1:30	16	6	1	2	0	2	0	7	2	3	3	16	58
1:45	14	9	2	1	1	0	4	14	2	2	4	10	63
HR TOTAL	74	33	4	4	8	3	6	30	11	10	15	72	270
DAY TOTAL	257	149	14	9	16	11	15	133	30	41	21	238	934

PEAK PERIOD ANALYSIS FOR THE PERIOD: 11:00 AM - 2:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	11:15 AM	0.79	96	64	5	165	58	39	3
East	11:45 AM	0.67	3	5	8	16	19	31	50
South	11:00 AM	0.77	5	54	12	71	7	76	17
West	11:45 AM	0.71	19	4	94	117	16	3	80

Entire Intersection

North	11:15 AM	0.79	96	64	5	165	58	39	3
East		0.44	2	1	4	7	29	14	57
South		0.78	5	55	9	69	7	80	13
West		0.70	17	4	93	114	15	4	82

DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Daniels Hole Rd
E-W Street: Industrial Rd
DAY OF WK : Saturday

Movements by: Primary

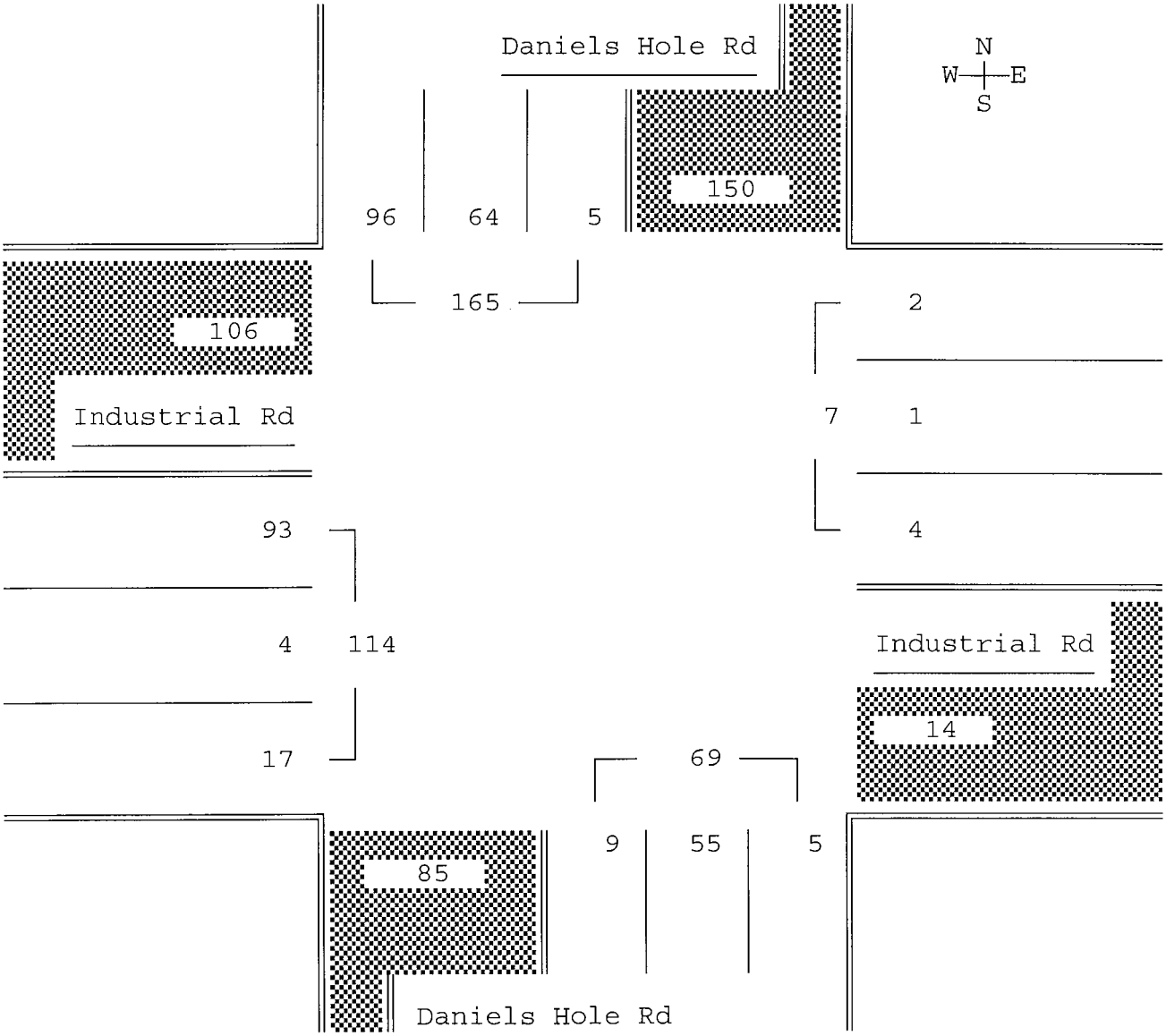
PAGE: 1
FILE: None
DATE: 8/19/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 11:15 AM - 12:15 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	11:15 AM	0.79	96	64	5	165	58	39	3
East	11:15 AM	0.44	2	1	4	7	29	14	57
South	11:15 AM	0.78	5	55	9	69	7	80	13
West	11:15 AM	0.70	17	4	93	114	15	4	82

Entire Intersection

North	11:15 AM	0.79	96	64	5	165	58	39	3
East		0.44	2	1	4	7	29	14	57
South		0.78	5	55	9	69	7	80	13
West		0.70	17	4	93	114	15	4	82



DUNN ENGINEERING ASSOCIATES

Site Code :

N-S Street: Wainscott Stone Rd

E-W Street: Montauk Hwy

DAY OF WK : Thursday

Movements by: Primary

PAGE: 1

FILE: None

DATE: 8/17/17

Time	From North			From East			From South			From West			Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
7:00 AM	1	0	2	0	148	10	6	2	2	0	202	0	373
7:15	0	0	0	2	169	5	9	0	0	1	225	0	411
7:30	0	0	1	0	210	11	17	0	0	1	212	0	452
7:45	0	0	0	0	223	20	15	0	0	0	216	0	474
HR TOTAL	1	0	3	2	750	46	47	2	2	2	855	0	1710
8:00 AM	0	0	0	0	191	23	12	0	0	2	215	0	443
8:15	0	0	0	0	230	28	24	0	0	1	216	0	499
8:30	0	0	0	0	197	52	24	0	0	0	198	0	471
8:45	0	0	0	1	214	59	63	0	0	1	201	0	539
HR TOTAL	0	0	0	1	832	162	123	0	0	4	830	0	1952
DAY TOTAL	1	0	3	3	1582	208	170	2	2	6	1685	0	3662

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION	START	PEAK HR	..... VOLUMES				.... PERCENTS ...		
FROM	PEAK HOUR	FACTOR	Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.33	1	0	3	4	25	0	75
East	8:00 AM	0.91	1	832	162	995	0	84	16
South	8:00 AM	0.49	123	0	0	123	%100	0	0
West	7:15 AM	0.96	4	868	0	872	0	%100	0

Entire Intersection

North	8:00 AM	0.00	0	0	0	0	0	0	0
East		0.91	1	832	162	995	0	84	16
South		0.49	123	0	0	123	%100	0	0
West		0.96	4	830	0	834	0	%100	0

DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Wainscott Stone Rd
E-W Street: Montauk Hwy
DAY OF WK : Thursday

Movements by: Primary

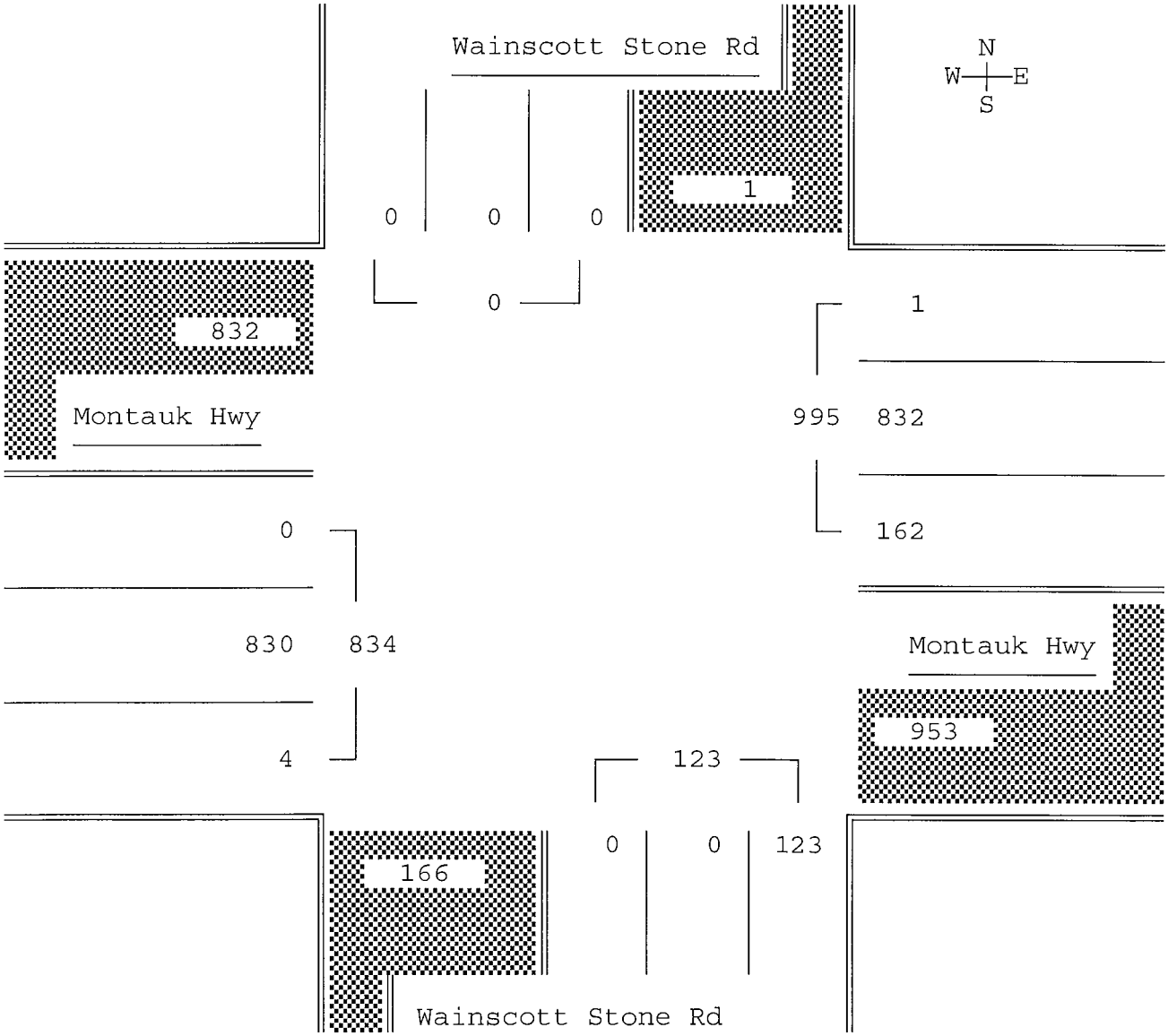
PAGE: 1
FILE: None
DATE: 8/17/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 8:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	12:00 AM	0.00	0	0	0	0	0	0	0
East	8:00 AM	0.91	1	832	162	995	0	84	16
South	8:00 AM	0.49	123	0	0	123	%100	0	0
West	8:00 AM	0.96	4	830	0	834	0	%100	0

Entire Intersection

North	8:00 AM	0.00	0	0	0	0	0	0	0
East		0.91	1	832	162	995	0	84	16
South		0.49	123	0	0	123	%100	0	0
West		0.96	4	830	0	834	0	%100	0



DUNN ENGINEERING ASSOCIATES

Site Code :

N-S Street: Wainscott Stone Rd

E-W Street: Montauk Hwy

DAY OF WK : Thursday

Movements by: Primary

PAGE: 1

FILE: None

DATE: 8/17/17

Time Begin	From North RT	From North THRU	From North LT	From East RT	From East THRU	From East LT	From South RT	From South THRU	From South LT	From West RT	From West THRU	From West LT	Vehicle Total
4:00 PM	0	0	2	0	203	48	69	0	2	2	222	0	548
4:15	0	0	0	0	208	56	64	0	2	1	210	0	541
4:30	0	1	0	1	191	48	85	0	1	0	218	1	546
4:45	0	1	0	0	183	60	97	1	1	1	190	2	536
HR TOTAL	0	2	2	1	785	212	315	1	6	4	840	3	2171
5:00 PM	0	0	0	1	175	57	105	0	1	2	171	0	512
5:15	0	0	2	0	200	58	118	0	2	0	174	0	554
5:30	0	0	0	0	202	56	84	0	2	2	187	0	533
5:45	0	0	1	0	194	49	108	0	3	1	185	1	542
HR TOTAL	0	0	3	1	771	220	415	0	8	5	717	1	2141
DAY TOTAL	0	2	5	2	1556	432	730	1	14	9	1557	4	4312

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	VOLUMES Thru	VOLUMES Left	VOLUMES Total	PERCENTS Right	PERCENTS Thru	PERCENTS Left
North	4:00 PM	0.50	0	2	2	4	0	50	50
East	4:00 PM	0.95	1	785	212	998	0	79	21
South	5:00 PM	0.88	415	0	8	423	98	0	2
West	4:00 PM	0.95	4	840	3	847	0	99	0

Entire Intersection

North	4:00 PM	0.50	0	2	2	4	0	50	50
East		0.95	1	785	212	998	0	79	21
South		0.81	315	1	6	322	98	0	2
West		0.95	4	840	3	847	0	99	0

DUNN ENGINEERING ASSOCIATES

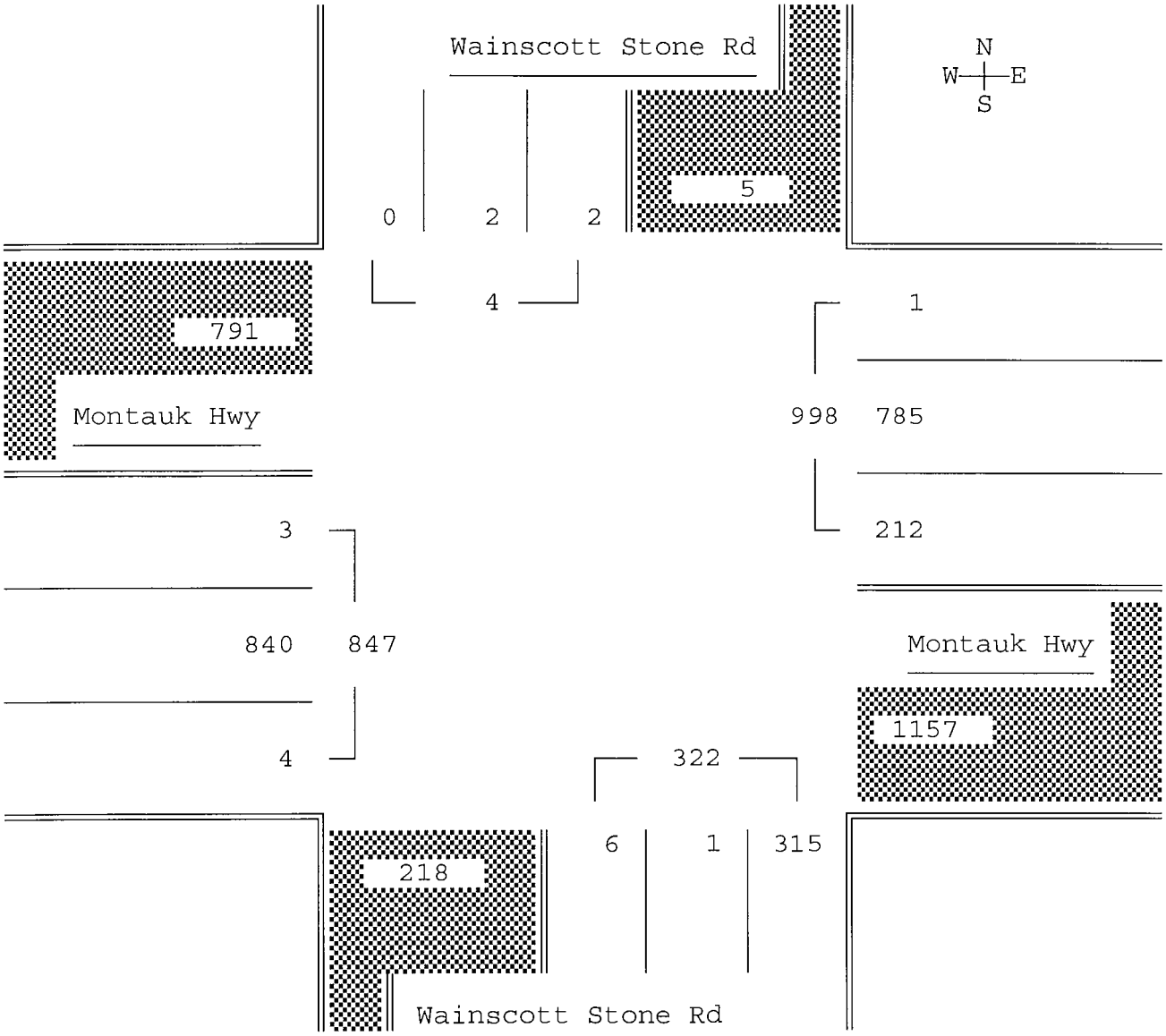
Site Code :
N-S Street: Wainscott Stone Rd
E-W Street: Montauk Hwy
DAY OF WK : Thursday

Movements by: Primary

PAGE: 1
FILE: None
DATE: 8/17/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 5:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:00 PM	0.50	0	2	2	4	0	50	50
East	4:00 PM	0.95	1	785	212	998	0	79	21
South	4:00 PM	0.81	315	1	6	322	98	0	2
West	4:00 PM	0.95	4	840	3	847	0	99	0
Entire Intersection									
North	4:00 PM	0.50	0	2	2	4	0	50	50
East		0.95	1	785	212	998	0	79	21
South		0.81	315	1	6	322	98	0	2
West		0.95	4	840	3	847	0	99	0



DUNN ENGINEERING ASSOCIATES

Site Code :

N-S Street: Wainscott Stone Rd

E-W Street: Montauk Hwy

DAY OF WK : Saturday

Movements by: Primary

FILE: None

DATE: 8/19/17

Time	From North			From East			From South			From West			Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
11:00 AM	0	0	0	0	216	37	69	0	4	0	234	0	560
11:15	2	0	0	2	207	43	75	0	7	1	244	0	581
11:30	1	0	4	0	215	43	88	0	0	0	211	1	563
11:45	2	0	0	0	198	65	82	5	3	1	208	0	564
HR TOTAL	5	0	4	2	836	188	314	5	14	2	897	1	2268
12:00 PM	0	0	0	0	182	42	103	0	3	4	220	0	554
12:15	2	0	0	0	193	36	120	0	4	2	212	1	570
12:30	2	0	0	0	212	33	75	0	2	3	226	0	553
12:45	2	0	0	0	202	52	76	0	2	2	239	0	575
HR TOTAL	6	0	0	0	789	163	374	0	11	11	897	1	2252
1:00 PM	1	0	1	0	174	32	76	0	3	0	238	1	526
1:15	0	0	0	0	208	30	88	0	2	3	242	0	573
1:30	2	0	1	0	175	22	59	0	1	3	244	0	507
1:45	0	2	0	0	188	33	55	0	4	1	238	0	521
HR TOTAL	3	2	2	0	745	117	278	0	10	7	962	1	2127
DAY TOTAL	14	2	6	2	2370	468	966	5	35	20	2756	3	6647

PEAK PERIOD ANALYSIS FOR THE PERIOD: 11:00 AM - 2:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	11:00 AM	0.45	5	0	4	9	56	0	44
East	11:00 AM	0.98	2	836	188	1026	0	81	18
South	11:30 AM	0.82	393	5	10	408	96	1	2
West	12:45 PM	0.98	8	963	1	972	1	99	0

Entire Intersection

North	11:00 AM	0.45	5	0	4	9	56	0	44
East		0.98	2	836	188	1026	0	81	18
South		0.93	314	5	14	333	94	2	4
West		0.92	2	897	1	900	0	%100	0

DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Wainscott Stone Rd
E-W Street: Montauk Hwy
DAY OF WK : Saturday

Movements by: Primary

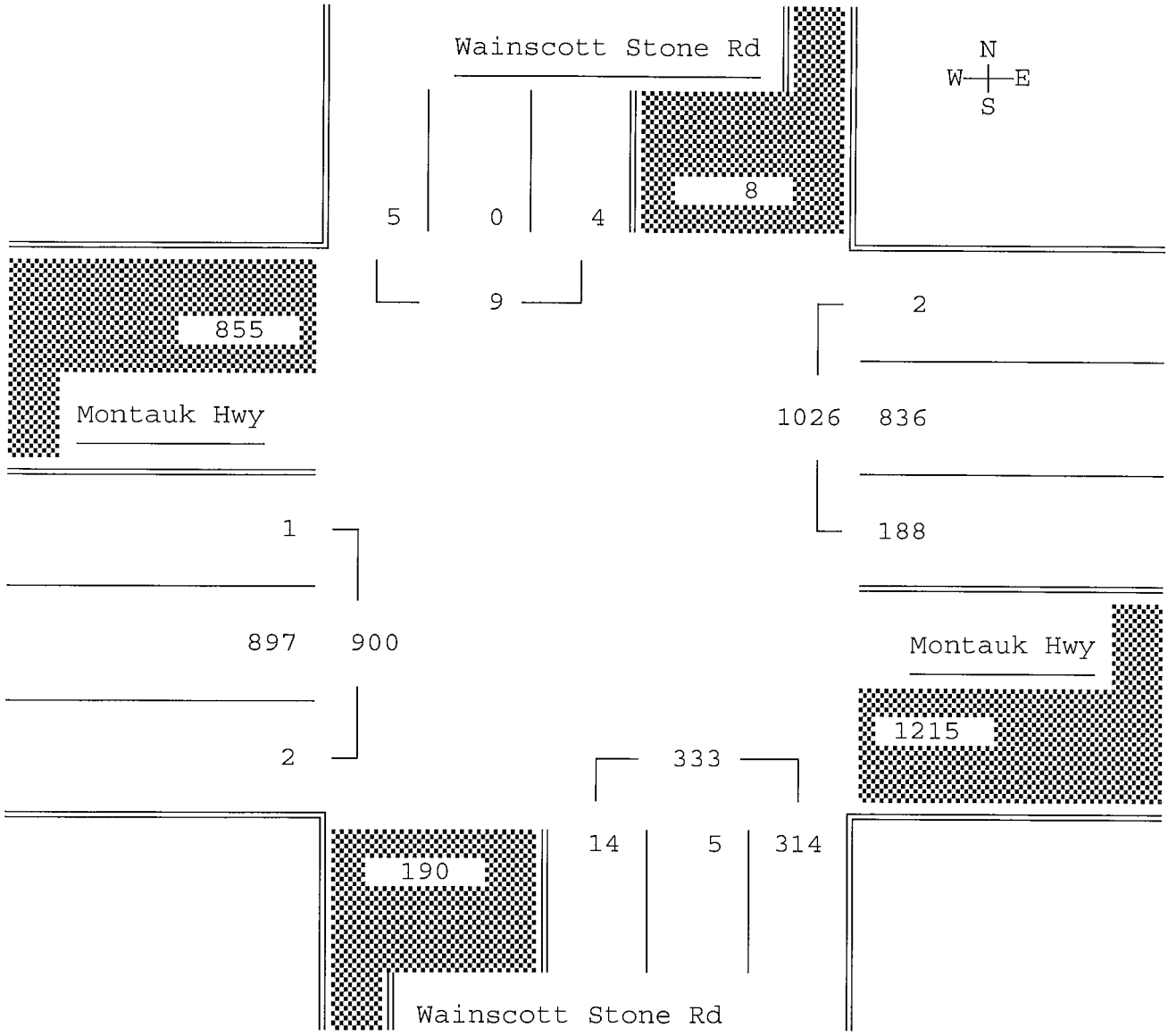
PAGE: 1
FILE: None
DATE: 8/19/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 11:00 AM - 12:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	11:00 AM	0.45	5	0	4	9	56	0	44
East	11:00 AM	0.98	2	836	188	1026	0	81	18
South	11:00 AM	0.93	314	5	14	333	94	2	4
West	11:00 AM	0.92	2	897	1	900	0	%100	0

Entire Intersection

North	11:00 AM	0.45	5	0	4	9	56	0	44
East		0.98	2	836	188	1026	0	81	18
South		0.93	314	5	14	333	94	2	4
West		0.92	2	897	1	900	0	%100	0



DUNN ENGINEERING ASSOCIATES

Site Code :

N-S Street: Old Montauk Hwy

E-W Street: Cement Yard Dvwy

DAY OF WK : Thursday

Movements by: Primary

PAGE: 1

FILE: None

DATE: 8/17/17

Time	From North			From East			From South			From West			Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
7:00 AM	0	0	0	0	4	0	0	0	0	0	3	4	11
7:15	0	0	1	1	2	0	0	0	0	0	3	2	9
7:30	1	0	0	0	7	0	0	0	0	0	2	1	11
7:45	2	0	1	1	10	0	0	0	0	0	4	2	20
HR TOTAL	3	0	2	2	23	0	0	0	0	0	12	9	51
8:00 AM	1	0	0	0	4	0	0	0	0	0	1	0	6
8:15	2	0	0	0	2	0	0	0	0	0	2	1	7
8:30	1	0	0	0	6	0	0	0	0	0	2	0	9
8:45	0	0	0	0	5	0	0	0	0	0	4	0	9
HR TOTAL	4	0	0	0	17	0	0	0	0	0	9	1	31
DAY TOTAL	7	0	2	2	40	0	0	0	0	0	21	10	82

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION	START	PEAK HR	..... VOLUMES				.... PERCENTS ...		
FROM	PEAK HOUR	FACTOR	Right	Thru	Left	Total	Right	Thru	Left
North	7:30 AM	0.58	6	0	1	7	86	0	14
East	7:00 AM	0.57	2	23	0	25	8	92	0
South	7:00 AM	0.00	0	0	0	0	0	0	0
West	7:00 AM	0.75	0	12	9	21	0	57	43

Entire Intersection

North	7:00 AM	0.42	3	0	2	5	60	0	40
East		0.57	2	23	0	25	8	92	0
South		0.00	0	0	0	0	0	0	0
West		0.75	0	12	9	21	0	57	43

DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Old Montauk Hwy
E-W Street: Cement Yard Dvwy
DAY OF WK : Thursday

Movements by: Primary

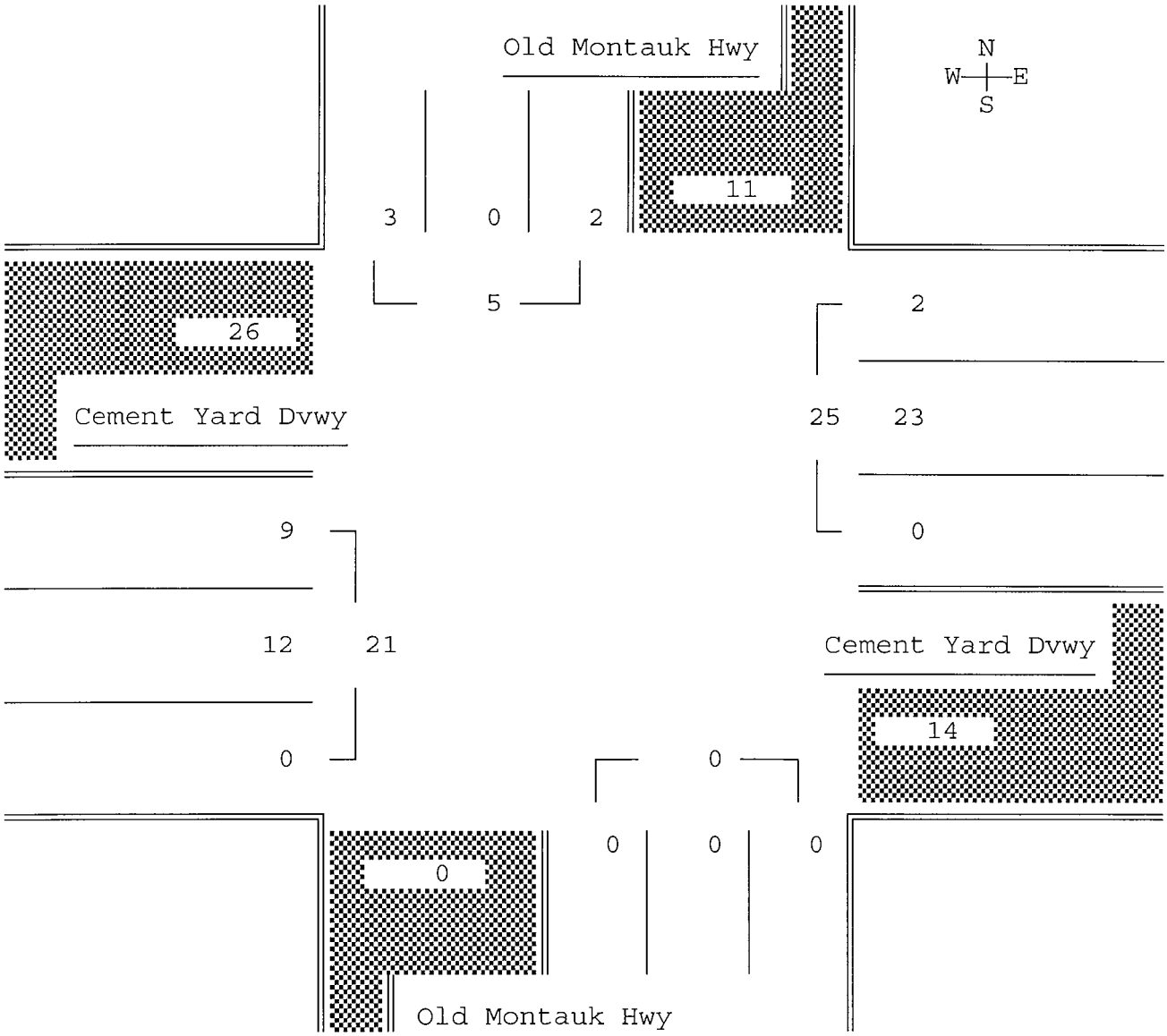
PAGE: 1
FILE: None
DATE: 8/17/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:00 AM	0.42	3	0	2	5	60	0	40
East	7:00 AM	0.57	2	23	0	25	8	92	0
South	7:00 AM	0.00	0	0	0	0	0	0	0
West	7:00 AM	0.75	0	12	9	21	0	57	43

Entire Intersection

North	7:00 AM	0.42	3	0	2	5	60	0	40
East		0.57	2	23	0	25	8	92	0
South		0.00	0	0	0	0	0	0	0
West		0.75	0	12	9	21	0	57	43



DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Old Montauk Hwy
E-W Street: Cement Yard Dvwy
DAY OF WK : Thursday

Movements by: Primary

PAGE: 1
FILE: None
DATE: 8/17/17

Time Begin	From North RT	From North THRU	From North LT	From East RT	From East THRU	From East LT	From South RT	From South THRU	From South LT	From West RT	From West THRU	From West LT	Vehicle Total
4:00 PM	0	0	0	0	5	0	0	0	0	0	2	1	8
4:15	0	0	0	0	3	0	0	0	0	0	2	1	6
4:30	0	0	0	1	9	0	0	0	0	0	1	1	12
4:45	1	0	0	0	4	0	0	0	0	0	1	0	6
HR TOTAL	1	0	0	1	21	0	0	0	0	0	6	3	32
5:00 PM	3	0	0	1	4	0	0	0	0	0	1	0	9
5:15	1	0	0	0	2	0	0	0	0	0	2	0	5
5:30	1	0	0	1	4	0	0	0	0	0	1	0	7
5:45	0	0	0	0	2	0	0	0	0	0	1	0	3
HR TOTAL	5	0	0	2	12	0	0	0	0	0	5	0	24
DAY TOTAL	6	0	0	3	33	0	0	0	0	0	11	3	56

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	VOLUMES Thru	VOLUMES Left	VOLUMES Total	PERCENTS Right	PERCENTS Thru	PERCENTS Left
North	4:45 PM	0.50	6	0	0	6	%100	0	0
East	4:00 PM	0.55	1	21	0	22	5	95	0
South	4:00 PM	0.00	0	0	0	0	0	0	0
West	4:00 PM	0.75	0	6	3	9	0	67	33

Entire Intersection

North	4:15 PM	0.33	4	0	0	4	%100	0	0
East		0.55	2	20	0	22	9	91	0
South		0.00	0	0	0	0	0	0	0
West		0.58	0	5	2	7	0	71	29

DUNN ENGINEERING ASSOCIATES

Site Code :
N-S Street: Old Montauk Hwy
E-W Street: Cement Yard Dvwy
DAY OF WK : Thursday

Movements by: Primary

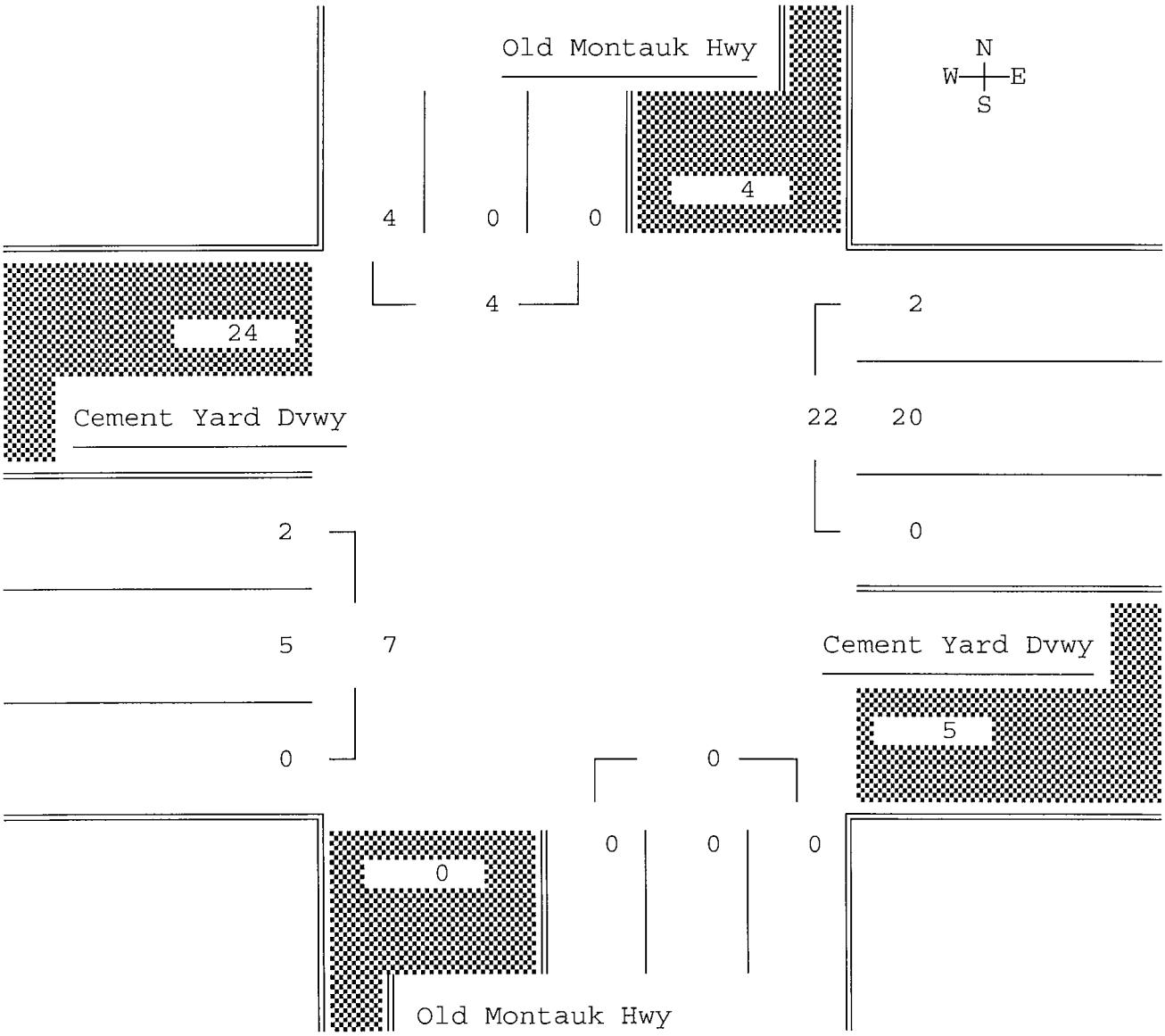
PAGE: 1
FILE: None
DATE: 8/17/17

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:15 PM - 5:15 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:15 PM	0.33	4	0	0	4	%100	0	0
East	4:15 PM	0.55	2	20	0	22	9	91	0
South	4:15 PM	0.00	0	0	0	0	0	0	0
West	4:15 PM	0.58	0	5	2	7	0	71	29

Entire Intersection

North	4:15 PM	0.33	4	0	0	4	%100	0	0
East		0.55	2	20	0	22	9	91	0
South		0.00	0	0	0	0	0	0	0
West		0.58	0	5	2	7	0	71	29



Traffic Volume Worksheets

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: AM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Montauk Hwy at Wainscott NW Road

TIME PERIOD: AM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	16	26	21	84	32	89	303	791	6	12	779	37
GROWTH PERCENT PER YEAR 2.50	17	27	22	88	34	93	318	831	6	13	818	39
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	17	27	22	88	34	93	318	831	6	13	818	39
SITE TRAFFIC	0	5	0	2	1	3	15	81	0	0	15	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	17	32	22	90	35	96	333	912	6	13	833	39

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: PM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Montauk Hwy at Wainscott NW Road

TIME PERIOD: PM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	22	29	39	38	26	71	38	827	14	30	794	15
GROWTH PERCENT PER YEAR 2.50	23	30	41	40	27	75	40	868	15	32	834	16
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	23	30	41	40	27	75	40	868	15	32	834	16
SITE TRAFFIC	0	1	0	12	5	15	3	18	0	0	80	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	23	31	41	52	32	90	43	886	15	32	914	16

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: SAT

TRAFFIC VOLUME SUMMARY

INTERSECTION : Montauk Hwy at Wainscott NW Road

TIME PERIOD: SAT

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	32	42	32	82	54	109	69	870	8	35	743	36
GROWTH PERCENT PER YEAR 2.50	34	44	34	86	57	114	72	914	8	37	780	38
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	34	44	34	86	57	114	72	914	8	37	780	38
SITE TRAFFIC	0	1	0	5	2	6	3	16	0	0	31	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	34	45	34	91	59	120	75	930	8	37	811	38

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: AM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Industrial Road at Wainscott NW Road

TIME PERIOD: AM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	14	1	70	0	0	0	0	13	14	86	11	2
GROWTH PERCENT PER YEAR 2.50	15	1	74	0	0	0	0	14	15	90	12	2
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	15	1	74	0	0	0	0	14	15	90	12	2
SITE TRAFFIC	0	0	20	38	0	0	0	0	0	4	0	7
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	15	1	94	38	0	0	0	14	15	94	12	9

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: PM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Industrial Road at Wainscott NW Road

TIME PERIOD: PM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	8	3	107	1	2	1	0	9	19	123	23	2
GROWTH PERCENT PER YEAR 2.50	8	3	112	1	2	1	0	9	20	129	24	2
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	8	3	112	1	2	1	0	9	20	129	24	2
SITE TRAFFIC	0	0	4	8	0	0	0	0	0	20	0	37
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	8	3	116	9	2	1	0	9	20	149	24	39

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: SAT

TRAFFIC VOLUME SUMMARY

INTERSECTION : Industrial Road at Wainscott NW Road

TIME PERIOD: SAT

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	8	4	110	1	1	0	0	12	7	103	5	1
GROWTH PERCENT PER YEAR 2.50	8	4	116	1	1	0	0	13	7	108	5	1
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	8	4	116	1	1	0	0	13	7	108	5	1
SITE TRAFFIC	0	0	4	7	0	0	0	0	0	8	0	15
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	8	4	120	8	1	0	0	13	7	116	5	16

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: AM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Industrial Road at Daniels Hole Road

TIME PERIOD: AM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	41	54	5	9	20	78	69	4	12	0	2	0
GROWTH PERCENT PER YEAR 2.50	43	57	5	9	21	82	72	4	13	0	2	0
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	43	57	5	9	21	82	72	4	13	0	2	0
SITE TRAFFIC	0	0	0	0	13	38	7	0	0	0	0	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	43	57	5	9	34	120	79	4	13	0	2	0

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: PM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Industrial Road at Daniels Hole Road

TIME PERIOD: PM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	41	41	0	1	61	96	121	0	5	2	5	12
GROWTH PERCENT PER YEAR 2.50	43	43	0	1	64	101	127	0	5	2	5	13
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	43	43	0	1	64	101	127	0	5	2	5	13
SITE TRAFFIC	0	0	0	0	3	8	37	0	0	0	0	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	43	43	0	1	67	109	164	0	5	2	5	13

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: SAT

TRAFFIC VOLUME SUMMARY

INTERSECTION : Industrial Road at Daniels Hole Road

TIME PERIOD: SAT

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	9	58	5	5	67	101	98	4	18	4	1	2
GROWTH PERCENT PER YEAR 2.50	9	61	5	5	70	106	103	4	19	4	1	2
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	9	61	5	5	70	106	103	4	19	4	1	2
SITE TRAFFIC	0	0	0	0	2	1	15	0	0	0	0	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	9	61	5	5	72	107	118	4	19	4	1	2

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: AM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Montauk Hwy @ Old Montauk Hwy

TIME PERIOD: AM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	0	0	0	2	0	3	2	832	0	0	830	2
GROWTH PERCENT PER YEAR 2.50	0	0	0	2	0	3	2	874	0	0	872	2
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	0	0	0	2	0	3	2	874	0	0	872	2
SITE TRAFFIC	0	0	0	17	0	6	55	3	0	0	26	75
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	0	0	0	19	0	9	57	877	0	0	898	77

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: PM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Montauk Hwy @ Old Montauk Hwy

TIME PERIOD: PM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	0	0	0	0	0	4	9	840	0	0	789	2
GROWTH PERCENT PER YEAR 2.50	0	0	0	0	0	4	9	882	0	0	828	2
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	0	0	0	0	0	4	9	882	0	0	828	2
SITE TRAFFIC	0	0	0	87	0	32	12	13	0	0	6	16
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	0	0	0	87	0	36	21	895	0	0	834	18

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: SAT

TRAFFIC VOLUME SUMMARY

INTERSECTION : Montauk Hwy @ Old Montauk Hwy

TIME PERIOD: SAT

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	0	0	0	4	0	46	33	897	0	0	845	10
GROWTH PERCENT PER YEAR 2.50	0	0	0	4	0	48	35	942	0	0	887	11
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	0	0	0	4	0	48	35	942	0	0	887	11
SITE TRAFFIC	0	0	0	34	0	13	11	6	0	0	5	15
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	0	0	0	38	0	61	46	948	0	0	892	26

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: AM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Montauk Hwy at Wainscott Stone Road

TIME PERIOD: AM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	0	0	129	0	0	0	0	872	4	170	874	1
GROWTH PERCENT PER YEAR 2.50	0	0	135	0	0	0	0	916	4	179	918	1
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	0	0	135	0	0	0	0	916	4	179	918	1
SITE TRAFFIC	0	0	0	0	0	0	0	0	0	0	0	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	0	0	135	0	0	0	0	916	4	179	918	1

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: PM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Montauk Hwy at Wainscott Stone Road

TIME PERIOD: PM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	6	1	331	2	2	0	3	882	4	223	824	1
GROWTH PERCENT PER YEAR 2.50	6	1	348	2	2	0	3	926	4	234	865	1
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	6	1	348	2	2	0	3	926	4	234	865	1
SITE TRAFFIC	0	0	0	0	0	0	0	0	0	0	0	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	6	1	348	2	2	0	3	926	4	234	865	1

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: SAT

TRAFFIC VOLUME SUMMARY

INTERSECTION : Montauk Hwy at Wainscott Stone Road

TIME PERIOD: SAT

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	15	5	330	4	0	5	1	942	2	197	878	2
GROWTH PERCENT PER YEAR 2.50	16	5	347	4	0	5	1	989	2	207	922	2
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	16	5	347	4	0	5	1	989	2	207	922	2
SITE TRAFFIC	0	0	0	0	0	0	0	0	0	0	0	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	16	5	347	4	0	5	1	989	2	207	922	2

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: AM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Old Montauk Hwy @ Cement Yard

TIME PERIOD: AM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	0	0	0	2	0	3	9	13	0	0	24	2
GROWTH PERCENT PER YEAR 2.50	0	0	0	2	0	3	9	14	0	0	25	2
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	0	0	0	2	0	3	9	14	0	0	25	2
SITE TRAFFIC	0	0	0	0	0	0	0	0	0	0	0	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	0	0	0	2	0	3	9	14	0	0	25	2

DUNN ENGINEERING ASSOCIATES
66 MAIN STREET, WESTHAMPTON BEACH, NEW YORK 11978

FILE NAME: PM

TRAFFIC VOLUME SUMMARY

INTERSECTION : Old Montauk Hwy @ Cement Yard

TIME PERIOD: PM

EXISTING YEAR: 2019
HORIZON YEAR: 2021

DONE BY: CC

ALT X CLEARS INPUT VALUES

APPROACH

	NB			SB			EB			WB		
CONDITION	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
EXISTING	0	0	0	0	0	4	2	5	0	0	21	2
GROWTH PERCENT PER YEAR 2.50	0	0	0	0	0	4	2	5	0	0	22	2
OTHER DEVELOPMENTS												
1)	0	0	0	0	0	0	0	0	0	0	0	0
2)	0	0	0	0	0	0	0	0	0	0	0	0
3)	0	0	0	0	0	0	0	0	0	0	0	0
4)	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FUTURE "NO BUILD" WITH OTHER DEV.	0	0	0	0	0	4	2	5	0	0	22	2
SITE TRAFFIC	0	0	0	0	0	0	0	0	0	0	0	0
PASS-BY CREDIT 0	0	0	0	0	0	0	0	0	0	0	0	0
"BUILD" TRAFFIC	0	0	0	0	0	4	2	5	0	0	22	2

Accident Records

Accident Location Information System(ALIS)

Date: 10/1/2019
1:22:31 PM

Accident Verbal Description

16493_VDR

Date in this report covers the period -4/1/2016-3/31/2019

Complete Accident data from NYSDMV is only available thru 3/31/2019 12:00:00 AM

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: [Route] 27
AT INTERSECTION WITH WAINSCOTT NORTHWEST RD

4/13/2016 Wed 17:56 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36183033**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5591 State of Registration: NY
Num of Occupants: 1 Driver's Age: 56 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: MA
Num of Occupants: 1 Driver's Age: 27 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: GLARE, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051687 Street: MONTAUK HWY
14 Meters West of E Gate Rd

5/20/2016 Fri 14:30 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: CCC **Case: 2016-36240541**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2805 State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :3 CAR/VAN/PICKUP Registered Weight: 3351 State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3270 State of Registration: NY

Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: Y

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: FOLLOWING TOO CLOSELY, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051691 Street: MONTAUK HWY
AT INTERSECTION WITH GEORGICA DR

5/24/2016 Tue 16:14 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36243777**

Accident Class: INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: REAR END Weather: CLOUDY

Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3362 State of Registration: NY

Num of Occupants: 1 Driver's Age: 53 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 6313 State of Registration: NY

Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051687 Street: MONTAUK HWY
AT INTERSECTION WITH E GATE RD

5/17/2016 Tue 14:45 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2016-36243779**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2466 State of Registration: NY

Num of Occupants: 2 Driver's Age: 34 Sex: F Citation Issued: Y

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INEXPERIENCE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3603 State of Registration: NY
Num of Occupants: 1 Driver's Age: 51 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051693 Street: MONTAUK HWY
15 Meters West of WAINSCOTT STONE RD
6/8/2016 Wed 09:32 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2016-36264508**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :3 CAR/VAN/PICKUP Registered Weight: 4237 State of Registration: NY
Num of Occupants: 3 Driver's Age: 75 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5117 State of Registration: NY
Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: AZ
Num of Occupants: 2 Driver's Age: 72 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: MONTAUK HWY
AT INTERSECTION WITH WAINSCOTT NORTHWEST RD
6/24/2016 Fri 00:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36292320**
Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
Type Of Accident: NOT ENTERED Traffic Control: NOT ENTERED
Manner of Collision: NOT ENTERED Weather: NOT ENTERED
Road Surface Condition: NOT ENTERED Road Char.: NOT ENTERED Light Condition: NOT ENTERED
Loc. of Ped/Bicycle: NOT ENTERED Action of Ped/Bicycle: NOT ENTERED

Veh :2 OTHER Registered Weight: State of Registration:
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: NOT ENTERED Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: NOT ENTERED

Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 OTHER Registered Weight: State of Registration:

Num of Occupants: 1 Driver's Age: Sex: Citation Issued: N

Direction of Travel: NOT ENTERED Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: NOT ENTERED

Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051691 Street: MONTAUK HWY
46 Meters East of GEORGICA DR

6/20/2016 Mon 14:58 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36293345**

Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 1

Type Of Accident: COLLISION WITH TREE Traffic Control: NONE

Manner of Collision: OTHER Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3574 State of Registration: NY

Num of Occupants: 1 Driver's Age: 53 Sex: F Citation Issued: Y

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051691 Street: [Route] 27
AT INTERSECTION WITH GEORGICA DR

6/28/2016 Tue 17:43 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2016-36299087**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 5870 State of Registration: NY

Num of Occupants: 2 Driver's Age: 42 Sex: M Citation Issued: Y

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: FOLLOWING TOO CLOSELY, NOT ENTERED

Veh :1 CAR/VAN/PICKUP Registered Weight: 5712 State of Registration: NY

Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: MONTAUK HWY
42 Meters East of Wainscott Northwest Rd
7/17/2016 Sun 15:51 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36310109**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: UNKNOWN Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4230 State of Registration: NY
Num of Occupants: 1 Driver's Age: 52 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2800 State of Registration: NY
Num of Occupants: 1 Driver's Age: 28 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: MONTAUK HWY
91 Meters East of WAINSCOTT NORTHWEST RD
7/1/2016 Fri 14:27 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36314714**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4040 State of Registration: NY
Num of Occupants: 1 Driver's Age: 41 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :1 TRUCK Registered Weight: 33000 State of Registration: NY
Num of Occupants: 2 Driver's Age: 27 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051690 Street: MONTAUK HWY
60 Meters West of Georgica Dr
7/21/2016 Thu 18:15 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36344046**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration: -3
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT ENTERED, FAILURE TO YIELD RIGHT OF WAY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: FL
Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: MONTAUK HWY
15 Meters West of WAINSCOTT NORTHWEST RD
7/19/2016 Tue 06:45 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36344047**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4354 State of Registration: NY
Num of Occupants: 1 Driver's Age: 46 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 5987 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, DRIVER INATTENTION

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051693 Street: MONTAUK HWY
61 Meters East of WAINSCOTT STONE RD
8/20/2016 Sat 16:44 PM Persons Killed: 0 Persons Injured: 4 Extent of Injuries: CCCC **Case: 2016-36350016**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON VILLAGE PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2546 State of Registration: NY
Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 5337 State of Registration: NY
Num of Occupants: 4 Driver's Age: 41 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051691 Street: [Route] 27
61 Meters East of GEORGICA DR
8/8/2016 Mon 19:46 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36354352**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3269 State of Registration: NY
Num of Occupants: 1 Driver's Age: 22 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3773 State of Registration: NY
Num of Occupants: 2 Driver's Age: 33 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, FOLLOWING TOO CLOSELY

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051690 Street: MONTAUK HWY
151 Meters West of Georgica Dr
9/11/2016 Sun 20:47 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36390895**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4051 State of Registration: NY
Num of Occupants: 2 Driver's Age: 24 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT

Num of Occupants: 1 Driver's Age: 44 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: Street: WAINSCOTT NORTHWEST RD
23 Meters North of MONTAUK HWY

10/6/2016 Thu 12:39 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36447885**

Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: UNKNOWN Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 9500 State of Registration: NY

Num of Occupants: 1 Driver's Age: 41 Sex: M Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: BACKING

Apparent Factors: NOT ENTERED, BACKING UNSAFELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 2811 State of Registration: NY

Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051693 Street: MONTAUK HWY
AT INTERSECTION WITH WAINSCOTT STONE RD

12/10/2016 Sat 14:02 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: BC **Case: 2016-36525272**

Accident Class: INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE

Manner of Collision: UNKNOWN Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3274 State of Registration: NY

Num of Occupants: 1 Driver's Age: 73 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: TURNING IMPROPER, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: 4974 State of Registration: NY

Num of Occupants: 4 Driver's Age: 35 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051688 Street: MONTAUK HWY
132 Meters East of E Gate Rd
12/13/2016 Tue 00:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36697015**
Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
Type Of Accident: NOT ENTERED Traffic Control: NOT ENTERED
Manner of Collision: NOT ENTERED Weather: NOT ENTERED
Road Surface Condition: NOT ENTERED Road Char.: NOT ENTERED Light Condition: NOT ENTERED
Loc. of Ped/Bicycle: NOT ENTERED Action of Ped/Bicycle: NOT ENTERED

Veh :1 OTHER Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: Sex: Citation Issued: N
Direction of Travel: NOT ENTERED Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: NOT ENTERED
Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: Sex: Citation Issued: N
Direction of Travel: NOT ENTERED Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: NOT ENTERED
Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051693 Street: MONTAUK HWY
19 Meters East of Wainscott Stone Rd
4/26/2017 Wed 07:14 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36709044**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NONE
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4789 State of Registration: NY
Num of Occupants: 2 Driver's Age: 28 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ANIMAL'S ACTION, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051687 Street: MONTAUK HWY
71 Meters East of E Gate Rd
5/25/2017 Thu 19:37 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2017-36763494**
Accident Class: INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH BICYCLIST Traffic Control: UNKNOWN
Manner of Collision: OTHER Weather: RAIN

Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: PED/BICYCLIST NOT AT INTERSECTION Action of Ped/Bicycle: ALONG HIGHWAY WITH TRAFFIC

Veh :2 BICYCLE Registered Weight: State of Registration: -3
Num of Occupants: 1 Driver's Age: 45 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 TRUCK Registered Weight: 19550 State of Registration: NY
Num of Occupants: 1 Driver's Age: 50 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: [Route] 27
15 Meters East of WAINSCOTT NORTHWEST RD
6/13/2017 Tue 18:32 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36798500**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 8600 State of Registration: NY
Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :1 TRUCK Registered Weight: 25990 State of Registration: NY
Num of Occupants: 1 Driver's Age: 54 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT ENTERED, FOLLOWING TOO CLOSELY

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: [Route] 27
AT INTERSECTION WITH WAINSCOTT NORTHWEST RD
6/21/2017 Wed 06:47 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36803281**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 TRUCK Registered Weight: State of Registration: NJ

Num of Occupants: 2 Driver's Age: 24 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3660 State of Registration: NY
Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: Y
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051687 Street: [Route] 27
61 Meters East of E GATE RD
7/30/2017 Sun 18:46 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36834054**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH BUILDING/WALL Traffic Control: UNKNOWN
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3288 State of Registration: NY
Num of Occupants: 1 Driver's Age: 67 Sex: M Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051687 Street: [Route] 27
71 Meters East of E Gate Rd
7/25/2017 Tue 12:05 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2017-36847416**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
Manner of Collision: OTHER Weather: UNKNOWN
Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3393 State of Registration: NY
Num of Occupants: 2 Driver's Age: 56 Sex: F Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: UNKNOWN
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :1 BUS Registered Weight: 22 State of Registration: NY
Num of Occupants: 1 Driver's Age: 61 Sex: M Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: UNKNOWN

Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :3 OTHER Registered Weight: State of Registration: -3
Num of Occupants: 1 Driver's Age: 58 Sex: M Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: UNKNOWN
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051691 Street: [Route] 27
AT INTERSECTION WITH GEORGICA DR
8/22/2017 Tue 16:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36865644**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4237 State of Registration: NY
Num of Occupants: 1 Driver's Age: 70 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4457 State of Registration: NY
Num of Occupants: 1 Driver's Age: 66 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: MONTAUK HWY
AT INTERSECTION WITH WAINSCOTT NORTHWEST RD
9/9/2017 Sat 11:00 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36901350**
Accident Class: INJURY Police Agency: Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER Weather: UNKNOWN
Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration: NY
Num of Occupants: 4 Driver's Age: 27 Sex: F Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :3 OTHER Registered Weight: State of Registration: -3
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:

Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: UNKNOWN

Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 OTHER Registered Weight: State of Registration: -3

Num of Occupants: 0 Driver's Age: Sex: Citation Issued:

Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: UNKNOWN

Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051693 Street: [Route] 27
AT INTERSECTION WITH WAINSCOTT STONE RD

10/6/2017 Fri 06:59 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36944728**

Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 1

Type Of Accident: COLLISION WITH DEER Traffic Control: NO PASSING ZONE

Manner of Collision: OTHER Weather: CLOUDY

Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3482 State of Registration: NY

Num of Occupants: 1 Driver's Age: 32 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: ANIMAL'S ACTION, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: MONTAUK HWY
AT INTERSECTION WITH WAINSCOTT NORTHWEST RD

12/8/2017 Fri 14:07 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-37090601**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: UNKNOWN Weather: CLOUDY

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2679 State of Registration: NY

Num of Occupants: 1 Driver's Age: 71 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, TRAFFIC CONTROL DEVICES DISREGARDED

Veh :2 CAR/VAN/PICKUP Registered Weight: 2593 State of Registration: NY

Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: MONTAUK HWY
AT INTERSECTION WITH Wainscott Northwest Rd
1/22/2018 Mon 11:15 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37108127**
Accident Class: PROPERTY DAMAGE Police Agency: SOUTHAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration: NY
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PASSENGER DISTRACTION, UNKNOWN

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: [Route] 27
30 Meters West of WAINSCOTT NORTHWEST RD
2/1/2018 Thu 07:19 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37183117**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 10700 State of Registration: NY
Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 6000 State of Registration: NY
Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051688 Street: MONTAUK HWY
152 Meters East of E GATE RD
1/20/2018 Sat 05:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37203322**

Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3045 State of Registration: NY
Num of Occupants: 1 Driver's Age: 49 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ANIMAL'S ACTION, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: MONTAUK HWY
AT INTERSECTION WITH WAINSCOTT NORTHWEST RD
3/1/2018 Thu 18:26 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37227922**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4790 State of Registration: NY
Num of Occupants: 1 Driver's Age: 45 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 4204 State of Registration: NY
Num of Occupants: 1 Driver's Age: 75 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051691 Street: MONTAUK HWY
47 Meters East of Georgica Dr
5/1/2018 Tue 15:51 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37290686**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5272 State of Registration: NY
Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3404 State of Registration: NY
Num of Occupants: 1 Driver's Age: 43 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: MONTAUK HWY
AT INTERSECTION WITH WAINSCOTT NORTHWEST RD
6/2/2018 Sat 23:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37350205**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH TREE Traffic Control: UNKNOWN
Manner of Collision: OTHER Weather: UNKNOWN
Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 19 Sex: M Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051691 Street: MONTAUK HWY
53 Meters West of Old Montauk Hwy
7/8/2018 Sun 16:46 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37370353**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON VILLAGE PD Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3939 State of Registration: NY
Num of Occupants: 1 Driver's Age: 68 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :3 OTHER Registered Weight: State of Registration: -3
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3805 State of Registration: NY
Num of Occupants: 1 Driver's Age: 72 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051692 Street: MONTAUK HWY
90 Meters East of Old Montauk Hwy
6/15/2018 Fri 11:48 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37370936**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2662 State of Registration: NY
Num of Occupants: 1 Driver's Age: 49 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CO
Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: [Route] 27
AT INTERSECTION WITH WAINSCOTT NORTHWEST RD
6/2/2018 Sat 22:30 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37371019**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH CURBING Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4030 State of Registration: NY
Num of Occupants: 2 Driver's Age: 19 Sex: M Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT ENTERED, PAVEMENT SLIPPERY

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051687 Street: STATE HWY 27
10 Meters East of E Gate Rd
6/30/2018 Sat 10:01 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37390563**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2920 State of Registration: NY
Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :3 CAR/VAN/PICKUP Registered Weight: 3886 State of Registration: NY
Num of Occupants: 2 Driver's Age: 57 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :1 CAR/VAN/PICKUP Registered Weight: 2504 State of Registration: NY
Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051692 Street: MONTAUK HWY
61 Meters West of WAINSCOTT STONE RD
7/10/2018 Tue 10:18 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2018-37390953**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 43 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 32 Sex: F Citation Issued: Y
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, CELL PHONE (HAND HELD)

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: MONTAUK HWY
AT INTERSECTION WITH WAINSCOTT NORTHWEST RD
7/13/2018 Fri 10:18 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37398882**
Accident Class: INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH PEDESTRIAN Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: PED/BICYCLIST AT INTERSECTION Action of Ped/Bicycle: CROSSING WITH SIGNAL

Veh :1 CAR/VAN/PICKUP Registered Weight: 5375 State of Registration: NY
Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: Y
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

Veh :2 PEDESTRIAN Registered Weight: State of Registration: -3
Num of Occupants: 1 Driver's Age: 10 Sex: M Citation Issued: N
Direction of Travel: NOT APPLICABLE Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: NOT APPLICABLE
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051693 Street: 27
AT INTERSECTION WITH WAINSCOTT STONE RD
6/20/2018 Wed 18:45 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37439843**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 54 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :1 MOTORCYCLE Registered Weight: 1045 State of Registration: NY
Num of Occupants: 1 Driver's Age: 52 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051691 Street: MONTAUK HWY
47 Meters East of Georgica Dr
7/25/2018 Wed 11:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37459909**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4238 State of Registration: NY

Num of Occupants: 1 Driver's Age: 40 Sex: F Citation Issued: Y
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT ENTERED, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: MA
Num of Occupants: 5 Driver's Age: 62 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051692 Street: MONTAUK HWY
41 Meters East of Old Montauk Hwy
7/31/2018 Tue 10:39 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37459920**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :3 TRUCK Registered Weight: 25950 State of Registration: NY
Num of Occupants: 2 Driver's Age: 39 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT ENTERED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4623 State of Registration: NY
Num of Occupants: 1 Driver's Age: 43 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3944 State of Registration: NY
Num of Occupants: 1 Driver's Age: 78 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051691 Street: [Route] 27
AT INTERSECTION WITH GEORGICA DR
8/9/2018 Thu 12:04 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37464498**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4786 State of Registration: NY
Num of Occupants: 1 Driver's Age: 65 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 5421 State of Registration: NY
Num of Occupants: 3 Driver's Age: 39 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051688 Street: MONTAUK HWY
61 Meters West of WAINSCOTT NORTHWEST RD
7/30/2018 Mon 07:20 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37466862**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: SIDESWIPE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2547 State of Registration: NY
Num of Occupants: 1 Driver's Age: 41 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ILLNESS, NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration: -3
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051693 Street: WAINSCOTT STONE RD
AT INTERSECTION WITH [Route] 27
7/15/2018 Sun 15:59 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37467346**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4583 State of Registration: NY
Num of Occupants: 1 Driver's Age: 60 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 2855 State of Registration: NY

Num of Occupants: 1 Driver's Age: 47 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT ENTERED, NOT ENTERED

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051690 Street: MONTAUK HWY
30 Meters West of GEORGICA DR

7/29/2018 Sun 19:56 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37467713**

Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE

Manner of Collision: RIGHT ANGLE Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5496 State of Registration: NY

Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: VIEW OBSTRUCTED/LIMITED, OTHER (VEHICLE)

Veh :2 MOTORCYCLE Registered Weight: 243 State of Registration: NY

Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: OTHER (VEHICLE), PASSING OR LANE USAGE IMPROPERLY

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051693 Street: MONTAUK HWY
AT INTERSECTION WITH WAINSCOTT STONE RD

7/26/2018 Thu 17:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37467714**

Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: OTHER

Manner of Collision: UNKNOWN Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2690 State of Registration: NY

Num of Occupants: 1 Driver's Age: 24 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4326 State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: NOT ENTERED, DRIVER INATTENTION

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: [Route] 27
15 Meters West of WAINSCOTT NORTHWEST RD
9/12/2018 Wed 07:52 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37539362**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: FOG/SMOG/SMOKE
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3757 State of Registration: NY
Num of Occupants: 1 Driver's Age: 27 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3527 State of Registration: NY
Num of Occupants: 1 Driver's Age: 32 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051689 Street: WAINSCOTT NORTHWEST RD
AT INTERSECTION WITH MONTAUK HWY
9/22/2018 Sat 12:56 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37539430**
Accident Class: INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2856 State of Registration: NY
Num of Occupants: 1 Driver's Age: 20 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 2404 State of Registration: NY
Num of Occupants: 1 Driver's Age: 28 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051688 Street: MONTAUK HWY
91 Meters West of WAINSCOTT NORTHWEST RD

10/11/2018 Thu 12:45 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37552087**
Accident Class: INJURY Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 32 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3537 State of Registration: NY
Num of Occupants: 1 Driver's Age: 74 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT ENTERED, TURNING IMPROPER

County: Suffolk Muni: East Hampton(T) Ref. Marker: 27 07051691 Street: MONTAUK HWY
61 Meters East of GEORGICA DR

10/3/2018 Wed 10:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37568689**
Accident Class: PROPERTY DAMAGE Police Agency: EAST HAMPTON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2808 State of Registration: NY
Num of Occupants: 1 Driver's Age: 31 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 3560 State of Registration: NY
Num of Occupants: 1 Driver's Age: 78 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Public Transportation

Suffolk County Transit Bus Information

Questions, Suggestions, Complaints?
Call Suffolk County Transit Information Service
631.852.5200
Monday to Friday 8:00am to 4:30pm

SCAT Paratransit Service

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Large Print Bus Schedules

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Additional Transportation Services

HART, HUNTINGTON AREA RAPID TRANSIT 631.427.8287
NICE, Nassau Inter-County Express . . . 516.228.4000
MTA LONG ISLAND RAIL ROAD 718.217.5477
511NYRideshare . . . . . 511 and say "Rideshare"

Follow us on Twitter
@SCTBusInfo

www.sct-bus.org

Suffolk County Transit Fares & Information

Full fare $2.25

Student fare $1.25
Between 14 to 22 years old. High School/College ID required.

Children under 5 years old FREE
Limit 3 children accompanied by adult.

Senior, Person with Disabilities, Medicare Care Holders and Suffolk County Veterans 75 cents

Personal Care Attendant FREE
When traveling to assist passenger with disabilities.

Transfer 25 cents
Available on request when paying fare.
Good for two (2) connecting buses.
Valid for two (2) hours from time received.
Not valid for return trip.
Special restrictions may apply (see transfer).

Passengers Please

- Have exact fare ready; Driver cannot handle money.
- Passengers must deposit their own fare.
- Arrive earlier than scheduled departure time.
- Tell driver your destination.
- SCT Drivers announce Major Bus Stop locations.
- Smoking, drinking, eating & playing radios prohibited on buses.

Bike Racks

Available on all Suffolk County Transit (SCT) bus routes.

Reduced Fare for Seniors, Persons with Disabilities and Medicare Card Holders

Persons with valid, municipally issued cards identifying them as at least 60 years old or having a mental or physical disability may ride for the reduced, one-way fare. A valid Medicare Card is also accepted as ID.

Persons must display their ID card to the driver when paying the fare to ride at the reduced rate.

For ID information:

Seniors ID call	631.853.8200
Disability ID call	631.853.8333
Hearing Impaired TTY	631.853.5658

Suffolk County Transit Service: Monday - Sunday

*No service New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving or Christmas Day.

***Note: Bus routes S92 and 10C will run on Memorial Day, Independence Day, and Labor Day**

Persons with Disabilities

Upon request, drivers will assist wheelchair passengers while boarding and leaving lift/ramp and with use of securement device. Use of wheelchair lifts/ramps also available to passengers using walkers, canes, braces or who are otherwise mobility-impaired. Person traveling with respirator or portable oxygen supply are permitted to ride SCT buses. Service animals to accompany disabled passengers are also permitted.

SUFFOLK COUNTY TRANSIT

Effective October 28, 2019 to March 20, 2020

7 DAY SERVICE

SCHEDULE

S92

Orient Point, Greenport to East Hampton Railroad via Riverhead

Serving

Orient Point Ferry
Orient
Greenport
Southold
Mattituck
Riverhead
Peconic Bay Medical Center
Flanders
Hampton Bays
Southampton
Southampton Hospital
Bridgehampton
Sag Harbor
East Hampton Railroad

S92 Service — Orient Point to East Hampton

					■		■	■		■	■			■			■	
Orient Point Ferry Dock	—	—	—	—	—	—	8:35	9:25	10:35	11:35	**12:35**	**1:35**	**2:05**	**2:50**	**3:20**	**3:50**	**4:50**	**6:35**
Orient	—	—	—	—	—	—	8:40	9:30	10:40	11:40	**12:40**	**1:40**	**2:10**	**2:55**	**3:25**	**3:55**	**4:55**	**6:40**
East Marion	—	—	—	—	—	—	8:45	9:35	10:45	11:45	**12:45**	**1:45**	**2:15**	**3:00**	**3:30**	**4:00**	**5:00**	**6:45**
Greenport	5:15	5:45	6:05	6:35	6:50	8:00	8:50	9:40	10:50	11:50	**12:50**	**1:50**	**2:20**	**3:05**	**3:35**	**4:05**	**5:05**	**7:00**
Southold	5:23	5:53	6:13	6:43	6:58	8:08	8:58	9:58	10:58	11:58	**12:58**	**1:58**	**2:28**	**3:13**	**3:43**	**4:13**	**5:13**	**7:08**
Cutchogue	5:28	5:58	6:18	6:48	7:03	8:13	9:06	10:06	11:06	**12:06**	**1:06**	**2:06**	**2:36**	**3:20**	**3:50**	**4:20**	**5:20**	**7:15**
Mattituck	5:33	6:03	6:23	6:53	7:08	8:18	9:12	10:12	11:12	**12:12**	**1:12**	**2:12**	**2:42**	**3:24**	**3:54**	**4:24**	**5:24**	**7:20**
Jamesport	5:38	6:08	6:28	6:58	7:13	8:23	9:17	10:17	11:17	**12:17**	**1:17**	**2:17**	**2:47**	**3:29**	**3:59**	**4:29**	**5:29**	**7:25**
Riverhead Railroad	5:50	6:20	6:40	7:10	7:40	8:35	9:45	10:45	11:30	**12:45**	**1:45**	**2:30**	**3:00**	**3:57**	**4:12**	**4:43**	**5:57**	**7:40**
Riverhead County Ctr, Lv	5:53	6:23	6:43	7:13	7:43	8:38	9:50	10:50	11:33	**12:50**	**1:50**	**2:33**	**3:03**	**4:00**	**4:15**	**4:50**	**6:00**	**7:45**
Flanders	6:00	6:30	6:50	7:20	7:50	8:45	9:55	10:55	11:40	**12:55**	**1:55**	**2:40**	**3:10**	**4:05**	**4:20**	**4:55**	**6:05**	**7:50**
Hampton Bays	6:10	6:40	7:00	7:30	8:00	8:55	10:05	11:05	11:50	**1:05**	**2:05**	**2:50**	**3:20**	**4:15**	**4:30**	**5:05**	**6:15**	**8:00**
Peconic Beach	6:15	6:45	7:05	7:35	8:05	9:00	10:10	11:10	11:55	**1:10**	**2:10**	**2:55**	**3:25**	**4:20**	**4:35**	**5:10**	**6:20**	**8:05**
Shinnecock Club	6:25	6:55	7:15	7:45	8:15	9:10	10:20	11:20	**12:05**	**1:20**	**2:20**	**3:05**	**3:35**	**4:30**	**4:45**	**5:20**	**6:30**	**8:15**
Southampton	6:35	7:05	7:25	7:55	8:25	9:20	10:30	11:30	**12:15**	**1:30**	**2:30**	**3:15**	**3:45**	**4:40**	**4:55**	**5:30**	**6:40**	**8:25**
Hay Ground	6:50	7:15	7:35	8:05	8:35	9:30	10:40	11:40	**12:25**	**1:40**	**2:40**	**3:25**	**3:55**	**4:50**	**5:05**	**5:40**	**6:50**	**8:35**
Bridgehampton	6:55	7:20	7:40	8:10	8:40	9:35	10:45	11:45	**12:30**	**1:45**	**2:45**	**3:30**	**4:00**	**4:55**	**5:10**	**5:45**	**6:55**	**8:40**
Sag Harbor	—	7:30	7:52	8:22	8:52	9:47	10:55	11:55	**12:40**	**1:55**	**2:55**	**3:40**	**4:10**	**5:07**	**5:22**	**5:57**	**7:07**	**8:52**
Hardscrabble	—	7:38	8:00	8:30	9:00	10:05	11:05	**12:05**	**12:50**	**2:05**	**3:05**	**3:50**	**4:20**	**5:18**	**5:33**	**6:08**	**7:18**	**9:00**
East Hampton Railroad	—	7:43	8:04	8:34	9:04	10:09	11:09	**12:09**	**12:54**	**2:09**	**3:09**	**3:54**	**4:24**	**5:22**	**5:37**	**6:12**	**7:22**	**9:04**

S92 Service — East Hampton to Orient Point

				■		■		■	■		■			■			
East Hampton Railroad	—	7:30	8:03	8:29	8:59	9:29	10:34	11:34	**12:34**	**1:34**	**2:34**	**3:30**	**3:55**	**4:24**	**4:49**	**5:49**	**6:19**
Hardscrabble	—	7:35	8:07	8:34	9:04	9:34	10:39	11:39	**12:39**	**1:39**	**2:39**	**3:35**	**3:59**	**4:28**	**4:54**	**5:54**	**6:24**
Sag Harbor	—	7:45	8:20	8:47	9:17	9:47	10:52	11:52	**12:52**	**1:52**	**2:52**	**3:48**	**4:13**	**4:39**	**5:04**	**6:09**	**6:36**
Bridgehampton	7:05	7:55	8:32	8:59	9:29	9:59	11:07	**12:07**	**1:07**	**2:07**	**3:07**	**3:58**	**4:23**	**4:48**	**5:16**	**6:20**	**6:47**
Hay Ground	7:10	8:00	8:35	9:04	9:34	10:04	11:12	**12:12**	**1:12**	**2:12**	**3:12**	**4:03**	**4:28**	**4:53**	**5:21**	**6:26**	**6:53**
Southampton	7:18	8:08	8:45	9:14	9:44	10:14	11:22	**12:22**	**1:22**	**2:22**	**3:22**	**4:08**	**4:33**	**5:00**	**5:31**	**6:36**	**7:03**
Shinnecock Club	7:28	8:18	8:55	9:24	9:54	10:24	11:34	**12:34**	**1:34**	**2:34**	**3:34**	**4:20**	**4:45**	**5:12**	**5:40**	**6:46**	**7:13**
Peconic Beach	7:32	8:22	9:01	9:28	9:58	10:28	11:38	**12:38**	**1:38**	**2:38**	**3:38**	**4:24**	**4:49**	**5:16**	**5:44**	**6:51**	**7:18**
Hampton Bays	7:37	8:27	9:05	9:35	10:05	10:35	11:45	**12:45**	**1:45**	**2:45**	**3:45**	**4:31**	**4:56**	**5:23**	**5:50**	**6:56**	**7:23**
Flanders	7:45	8:35	9:10	9:42	10:12	10:42	11:52	**12:52**	**1:52**	**2:52**	**3:52**	**4:38**	**5:03**	**5:30**	**5:59**	**7:03**	**7:30**
Riverhead County Ctr, Lv	7:55	8:45	9:20	9:50	10:20	10:50	**12:00**	**1:00**	**2:00**	**3:00**	**4:00**	**4:50**	**5:20**	**5:42**	**6:09**	**7:13**	**7:43**
Riverhead Railroad	8:00	8:50	9:23	9:53	10:23	10:53	**12:03**	**1:03**	**2:03**	**3:03**	**4:03**	**4:55**	**5:25**	**5:47**	**6:14**	**7:18**	**7:48**
Jamesport	8:10	8:57	9:33	10:16	10:35	11:16	**12:13**	**1:26**	**2:26**	**3:13**	**4:26**	**5:05**	**5:38**	**6:10**	**6:24**	**7:25**	**7:55**
Mattituck	8:15	9:07	9:38	10:20	10:41	11:20	**12:20**	**1:30**	**2:30**	**3:20**	**4:30**	**5:09**	**5:44**	**6:14**	**6:30**	**7:30**	**8:00**
Cutchogue	8:20	9:12	9:45	10:27	10:45	11:27	**12:27**	**1:37**	**2:37**	**3:27**	**4:37**	**5:16**	**5:49**	**6:20**	**6:35**	**7:35**	**8:05**
Southold	8:30	9:19	9:50	10:32	10:50	11:32	**12:32**	**1:42**	**2:42**	**3:37**	**4:42**	**5:21**	**5:54**	**6:25**	**6:41**	**7:42**	**8:12**
Greenport	8:40	10:20	10:00	10:40	11:00	11:40	**12:40**	**1:50**	**2:50**	**3:48**	**4:50**	**5:29**	**6:02**	**6:35**	**6:55**	**7:55**	**8:25**
East Marion	8:45	10:25	10:05	10:45	11:05	11:45	**12:45**	**1:55**	**2:55**	—	**4:55**	**5:34**	—	—	—	—	—
Orient	8:50	10:30	10:10	10:50	11:10	11:50	**12:50**	**2:00**	**3:00**	—	**5:00**	**5:39**	—	—	—	—	—
Orient Point Ferry Dock	8:55	10:35	10:15	10:55	11:15	11:55	**12:55**	**2:05**	**3:05**	—	**5:05**	**5:44**	—	—	—	—	—

■ **In Riverhead bus travels from and to North Fork via CR58.**

AM–LIGHTFACE **PM–BOLDFACE**

Schedules subject to change without notice.

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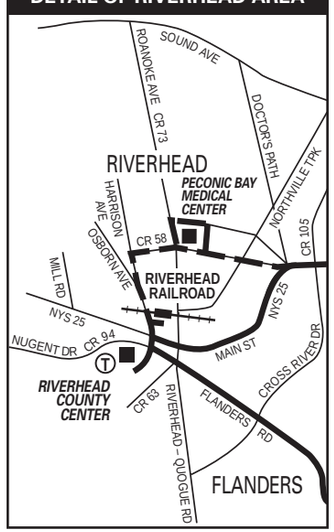
Where to Board For your safety, please wait for the bus at a designated bus stop.

S92 map

DETAIL OF RIVERHEAD AREA

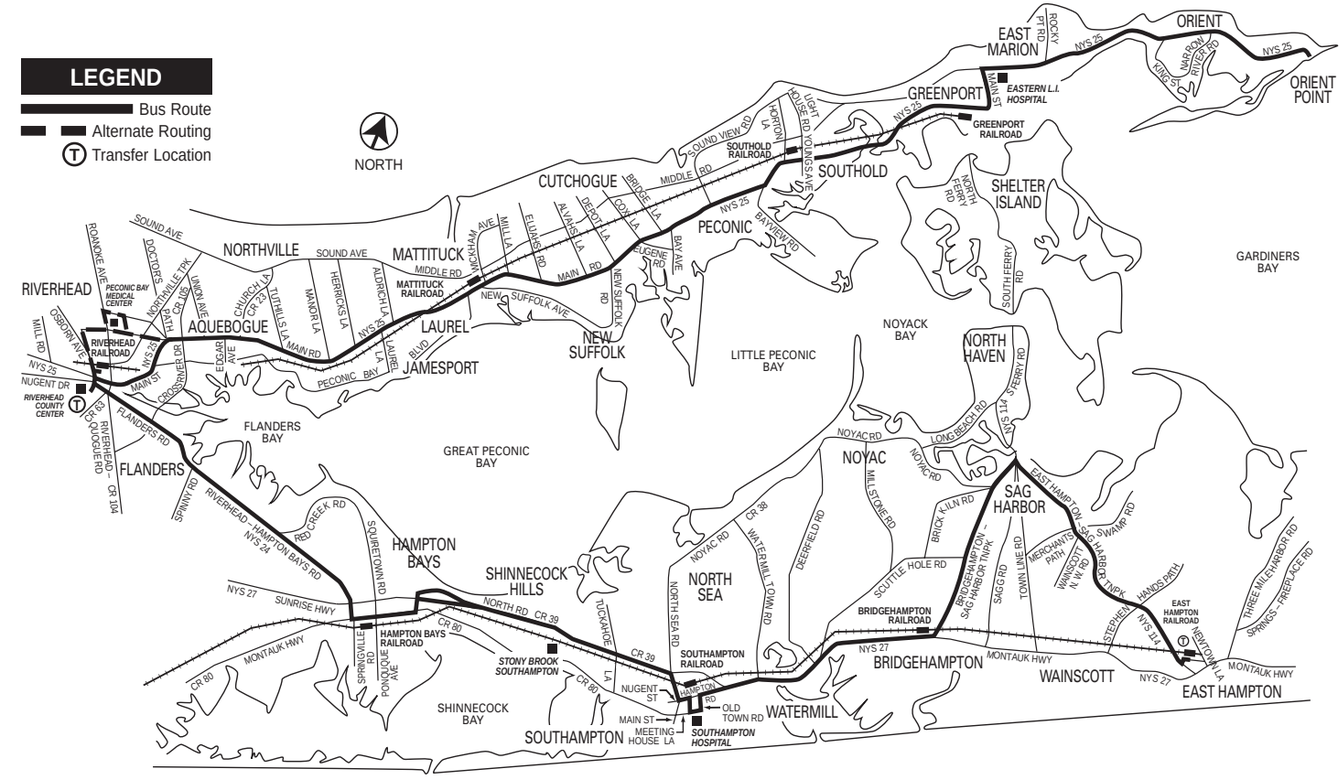


LEGEND

Bus Route

Alternate Routing

Transfer Location



S92 Connecting Bus Service

Route No.	Location
S58, S62, S66	Riverhead
8A	Riverhead
10B	East Hampton Bridgehampton
10C	East Hampton
10B, 10C	East Hampton Rail Road

Long Island Rail Road

Riverhead – Ronkonkoma Branch
Southampton – Montauk Branch
East Hampton – Montauk Branch

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MTA LONG ISLAND RAIL ROAD 718.217.5477
511NYRideshare . . . . . 511 and say "Rideshare"

Follow us on Twitter
@SCTBusInfo

www.sct-bus.org

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Student fare $1.25
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Limit 3 children accompanied by adult.

Senior, Person with Disabilities, Medicare Care Holders and Suffolk County Veterans 75 cents

Personal Care Attendant FREE
When traveling to assist passenger with disabilities.

Transfer 25 cents
Available on request when paying fare.
Good for two (2) connecting buses.
Valid for two (2) hours from time received.
Not valid for return trip.
Special restrictions may apply (see transfer).

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- Passengers must deposit their own fare.
- Arrive earlier than scheduled departure time.
- Tell driver your destination.
- SCT Drivers announce Major Bus Stop locations.
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Disability ID call	631.853.8333
Hearing Impaired TTY	631.853.5658

Suffolk County Transit Service: Observed Holidays

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Persons with Disabilities

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SUFFOLK COUNTY TRANSIT

Effective August 1, 2018

SCHEDULE

10B

East Hampton, Springs to Bridgehampton

Serving

East Hampton
Three Mile Harbor
Springs
Bridgehampton

42-0334.8.1.18

SUFFOLK TRANSIT

10B Service — East Hampton, Springs to Bridgehampton

East Hampton Railroad	East Hampton Pantigo Place	East Hampton Oak View Hwy Winstead St.	Springs Three Mile Harbor Rd. Gardiners La.	Springs Hog Creek Rd. Kings Point Rd.	Springs Springs Fireplace Rd. Gardiner Ave.	East Hampton Springs Fireplace Rd. Jackson St.	East Hampton Pantigo Place	East Hampton Railroad	Bridgehampton Bridgehampton Commons East	Bridgehampton Bridgehampton Commons West	East Hampton Railroad
6:50	—	6:58	7:06	7:12	7:18	7:31	7:39	7:51	8:13	8:18	8:40
8:00	8:10	8:17	8:24	8:29	8:35	8:48	8:56	9:06	9:29	9:34	9:55
9:00	9:10	9:17	9:23	9:28	9:33	9:45	9:53	10:03	10:33	10:38	11:04
10:05	10:15	10:23	10:30	10:35	10:40	10:52	11:00	11:08	11:35	11:40	**12:17**
11:15	11:25	11:32	11:39	11:43	11:48	11:59	**12:07**	**12:17**	**12:43**	**12:48**	**1:10**
1:20	**1:30**	**1:38**	**1:46**	**1:50**	**1:55**	**2:07**	**2:15**	**2:24**	**2:48**	**2:53**	**3:17**
3:30	**3:40**	**3:48**	**3:55**	**4:00**	**4:05**	**4:17**	**4:25**	**4:35**	**5:03**	**5:08**	**5:36**
5:45	**5:55**	**6:02**	**6:09**	**6:14**	**6:19**	**6:31**	**6:39**	**6:49**	**7:17**	**7:22**	—

10B service available Monday thru Saturday only.

AM–LIGHTFACE **PM–BOLDFACE**

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Where to Board For your safety, please wait for the bus at a designated bus stop.

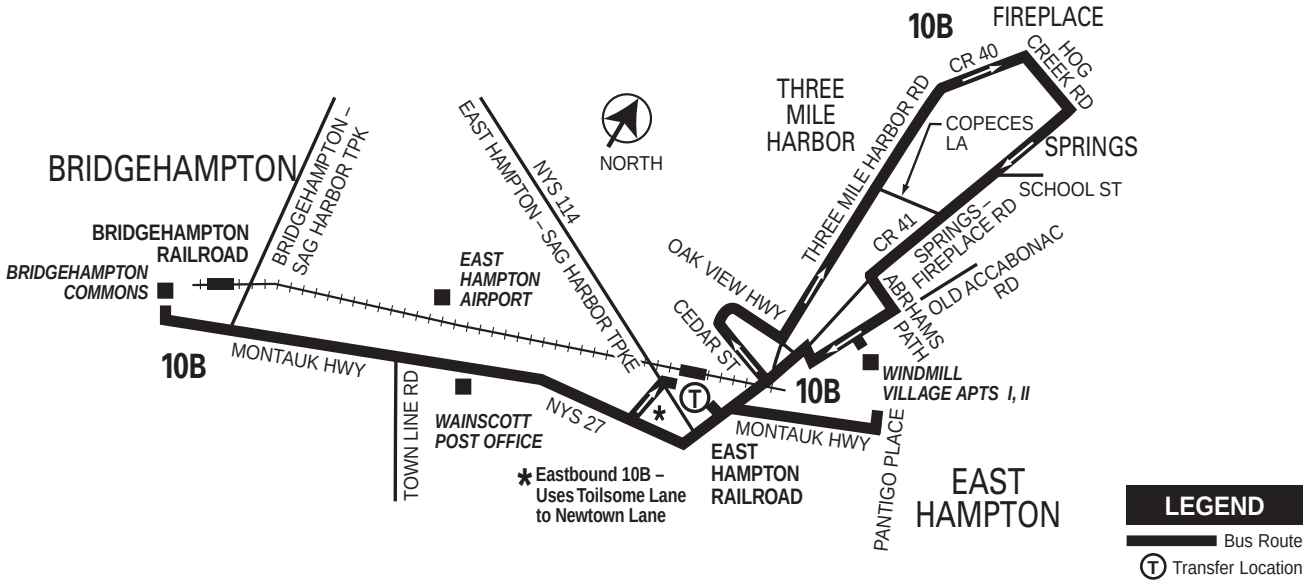
10B Connecting Bus Service

Route No.	Location
S92	Bridgehampton East Hampton Railroad
10C	East Hampton Village East Hampton Railroad

Long Island Rail Road

East Hampton – Montauk Branch

10B map



East End Officials Say Commuter Connection Is A Hit, And The LIRR's Numbers Back It Up

Stephen J. Kotz on Mar 10, 2020

Political officials from all over the South Fork gathered on Friday at the Hampton Bays Long Island Rail Road station to take a short ride on the train and sing the praises of the South Fork Commuter Connection.

The Commuter Connection, which went into service between Speonk and Montauk a year ago, has been lauded as an alternative to driving on traffic-clogged County Road 39 for East End employees who don't live in either Southampton or East Hampton.

"It's been extremely successful as a first step to expanding transportation options," said State Assemblyman Fred W. Thiele Jr., who added that the results have been so good that the Metropolitan Transportation Authority, which includes the LIRR in its operations and has long been criticized for ignoring the East End, has promised to undertake track improvements as part of its current capital plan.

Just how successful the service is can be spelled out in ridership numbers provided to Mr. Thiele by the LIRR.

While ticket sales between Speonk and Montauk from March through November in 2017 and 2018 were largely flat — 17,467 tickets were sold in 2017, and 17,241 during that same nine-month period in 2018 — after the new shuttle service began, sales rose sharply. A total of 44,268 tickets were sold just between March and November last year.

The railroad added two eastbound trains in the morning and two westbound trains in the afternoon for the Commuter Connection to give local riders more choices than the LIRR's normally limited offerings.

With no other service upgrades provided, Mr. Thiele said it was a safe bet to conclude that the lion's share of that increase in sales was due to the availability of the new local commuter service.

Aaron Donovan, a spokesman for the MTA, said on Tuesday that the increase has continued into the new year, with 2,526 tickets sold for trips between Speonk and Montauk in December, and 2,532 in January. Those represent increases of 223 percent and 473 percent, respectively, which he said in an email "shows the effect the SFCC has had on Montauk Branch ridership."

The railroad did report that 5,195 tickets were sold expressly for the Commuter Connection from March through November last year, but Mr. Thiele said it appeared that most riders had figured out that if they didn't want to ride the shuttle bus service provided between train stations and major workplaces, like schools, hospitals and business districts, they could save a dollar off the Commuter Connection fare of $4.25.

"We expected that most of the people who took the train would then use the bus," he said, "but people have been making other arrangements — walking, riding bikes, carpooling."

When the MTA agreed to provide the commuter service, both towns agreed to provide bus service to cover "the last mile" of the typical commute. But Mr. Thiele has been able to obtain $500,000 in state funding to underwrite that expense — and, late last year, with bus ridership failing to take off, the $1 surcharge to cover that expense was dropped from ticket prices.

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1661 Old Country Rd., Riverhead
631.727.3760

Southampton Town Supervisor Jay Schneiderman said officials were puzzled by the lack of bus ridership, but he said it might be because bus routes are too circuitous, or riders make arrangements with co-workers to pick them up at the train station.

Southampton contracts with the Hampton Jitney and the Hampton Hopper to provide its shuttle bus service, while East Hampton contracts with the Hopper, which has been deploying vans instead of buses in that town.

"We'll be going back out to bid," Mr. Schneiderman said of the shuttle bus service. "We might be bidding for smaller vehicles. Last time, we requested capacity of over 15. This time, we'll probably ask for under 15."

He said the towns might look to imitate a "micro-transit" pilot program advanced in the Southampton and Sag Harbor area by Suffolk County Legislator Bridget Fleming as a way to fill the gap in transportation options for people who used to rely on the now eliminated 10A bus route.

On Tuesday, Ms. Fleming said the county is seeking a contractor that could provide a smaller, multi-passenger vehicle to follow that old bus route, but one that "could deviate from that route on demand" to help fill the void in public transportation.

Mr. Schneiderman said if the MTA comes through with its offer to improve East End infrastructure, he would like to see parallel tracks, or sidings, added to the existing single track. That would give shuttle trains a place to pull over to allow either through trains or shuttles to pass in the other direction.

East Hampton Town Supervisor Peter Van Scoyoc said he, too, was pleased with the Commuter Connection. He said for years, the MTA told East End officials it didn't want to increase service because it didn't see the demand. The shuttle shows "they didn't see the demand because they didn't have the service," he said.

He agreed with Mr. Schneiderman that adding sidings would allow the service to be expanded throughout the day to serve more than commuters. He suggested a couple from Southampton might be able to catch the train to go to dinner in East Hampton, or vice versa.

Mr. Van Scoyoc said he also expected the service to continue to gain riders. He said he rode the train from Hampton Bays to East Hampton following Friday's press conference and met a woman from the North Fork who works in Amagansett and had just begun to use the service a week earlier.

"Here's someone who has known about this for a while and is just taking advantage of it now," he said. "She told me she had just gotten so fed up with traffic, and this has been a life-changer for her."

Add a comment

The Changing Times

Years ago, when we taught real history, I used The New York Times as a resource for current events

In His Own Words

John Steinbeck wrote about Sag Harbor: "Out here I get the old sense of peace and wholeness ... and

No Paid Parking

Please consider the simple fact that Village is a working town and not jus

Hamlet Report Recommendations

Illustrative Master Plan Overview: Wainscott

A Vision for the Future

This illustrative master plan shows one way that the Wainscott commercial district could be redeveloped over coming decades. The purposed of this exercise is not to require a particular use or arrangement of uses on a particular lot. Rather, it is meant to explore and illlustrate the fundamental planning and design principles that can shape the district into a more attractive, cohesive, functional and economically-vibrant place.

Each block and lot within the area does have certain advantages and disadvantages for various uses however. Thus the master plan suggests uses and configurations for each area that build on its unique advantages

Legend:

Potential new buildings

Existing buildings

Illustrative Master Plan - East Side

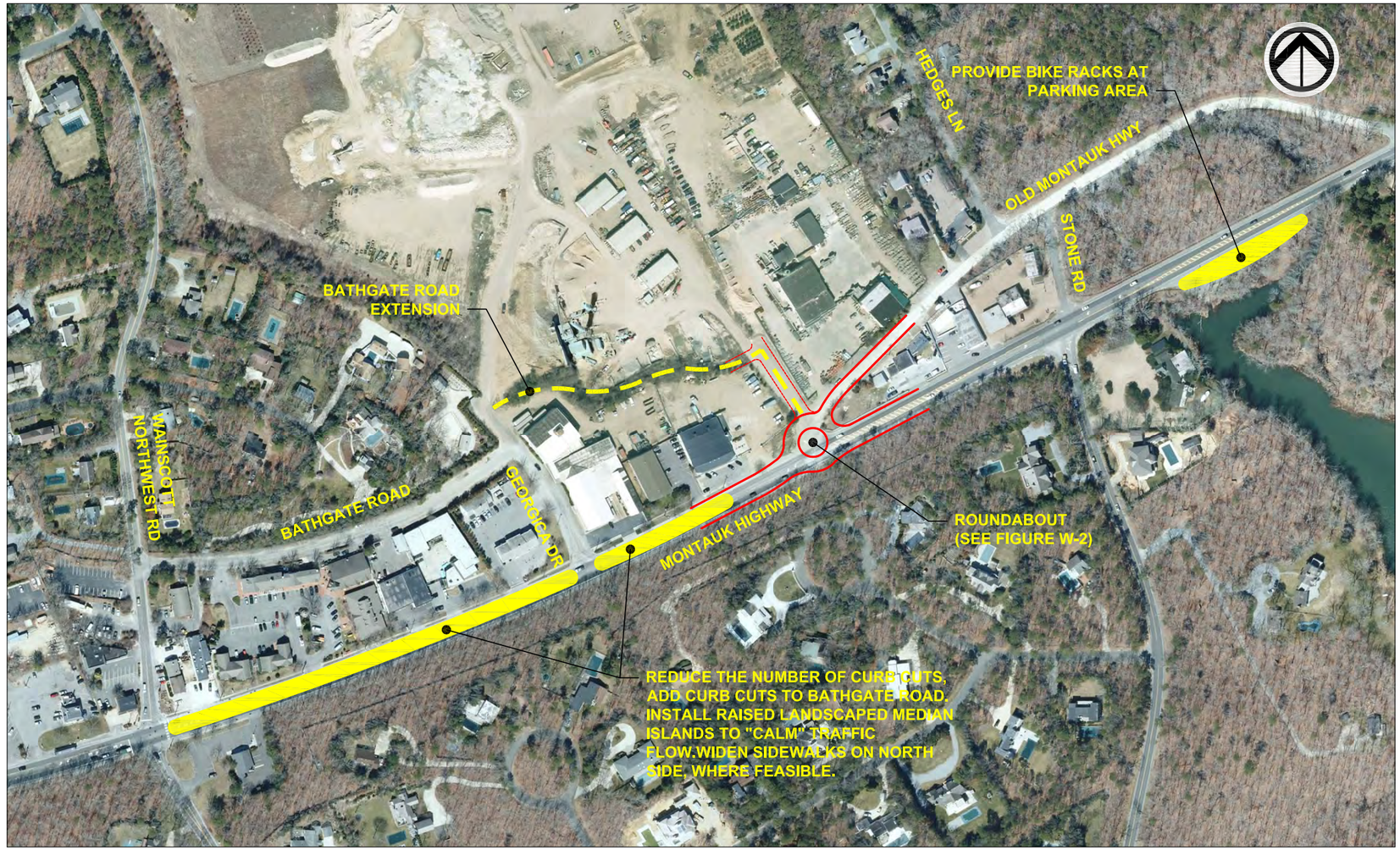
Design Recommendations: Transportation Design

Based on the results of the charrette, McLean Associates developed a series of recommendations for roadway improvements, which are summarised in Figure W-1. While the detailed layout of these elements varies from the final masterplan, the observations and recommendations are still applicable:

Extend Bathgate Road to the east, and provide a connection to Montauk Highway at the Old Montauk Highway intersection, by means of a modern roundabout. The roundabout, which would likely need to include two lanes on its circulatory roadway to accommodate current traffic flow, could also accommodate traffic associated with the future development of the sand pit area. The roundabout will also serve as a visual gateway to the hamlet center for traffic approaching from the east. The roundabout concept is illustrated on Figure W-2.

Reduce the number of driveway curb cuts on the north side of Montauk Highway, in favor of adding rear curb cuts on Bathgate Road, where feasible.

Remove the median two-way left turn lane on Montauk Highway in selected locations and install a raised landscaped median. A typical installation is shown in the following photo.



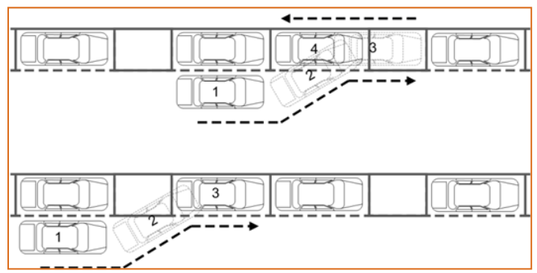
LKMA L. K. McLEAN ASSOCIATES, P.C.
CONSULTING ENGINEERS 437 SOUTH COUNTRY RD., BROOKHAVEN, NEW YORK 11719

0 200'±

KEY ROADWAY RECOMMENDATIONS
WAINSCOTT

FIGURE W-1

The Right-of-Way of Montauk Highway appears to be 66' wide. While it would be desirable to investigate the addition of on-street parallel parking spaces on the north side, it appears that property would need to be acquired to implement this measure. Any on-street parking should be of the tandem type, as illustrated below. This system of paired spaces, separated by a no-parking zone, minimizes traffic flow impacts by enabling most of the vehicle parking maneuvers to take place in the curb lane, rather than within the main travel lane.



Pedestrians—Similar to the Right-of-Way constraints associated with implementation of on-street parking, widening the sidewalk, while desirable, may require property acquisition. The sidewalks could be widened to remove the landscaped area between the existing sidewalk and the curb, but there are utility poles in that area.

Bicyclists—Bike racks should be installed at the existing Parking Area on Montauk Highway, as shown on Figure W-1.

Transit/Parking—Provide additional off-street parking in the Hamlet Center area, to serve businesses and Hampton Jitney customers.

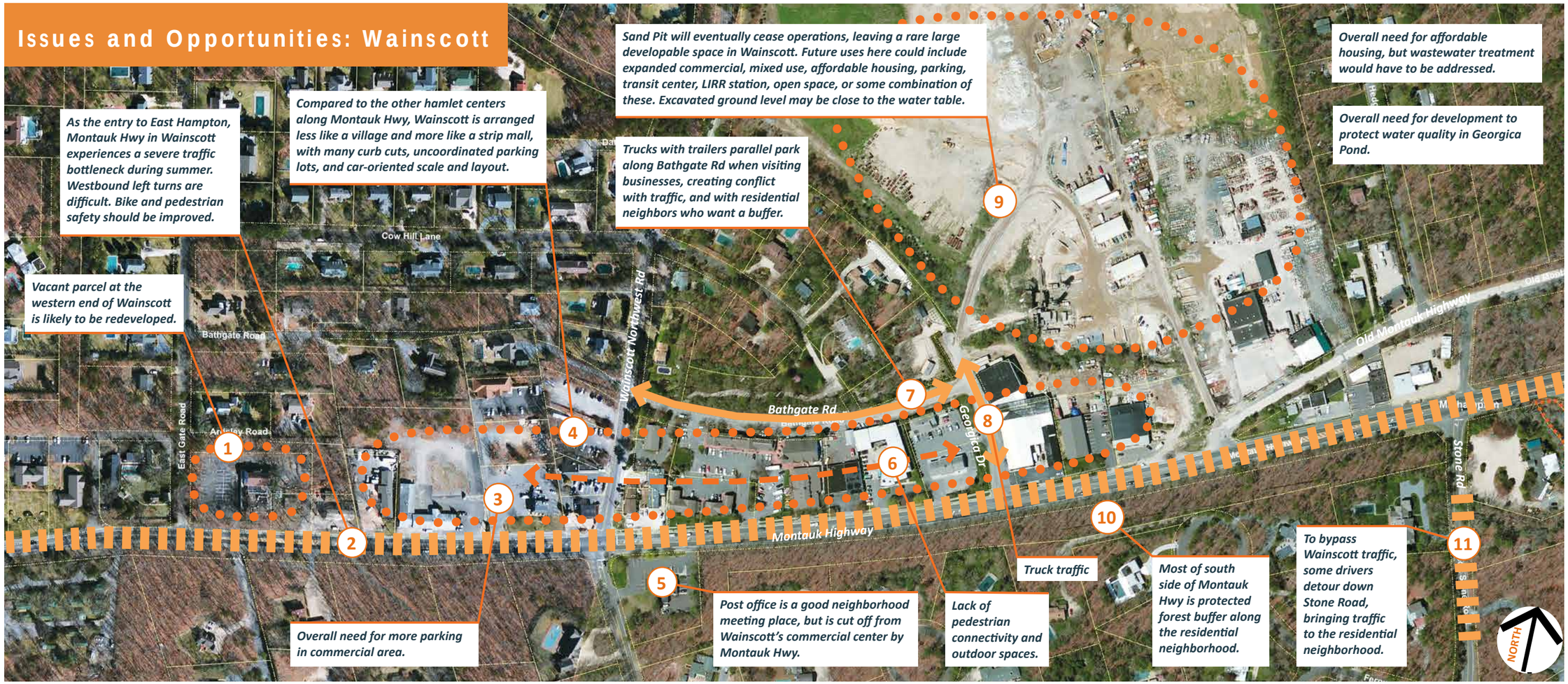
L. K. McLEAN ASSOCIATES, P.C.
CONSULTING ENGINEERS 437 SOUTH COUNTRY RD., BROOKHAVEN, NEW YORK 11719

0 50'±

ROUNDABOUT CONCEPT
MONTAUK HIGHWAY AT OLD MONTAUK HIGHWAY
WAINSCOTT

FIGURE W-2

Issues and Opportunities: Wainscott

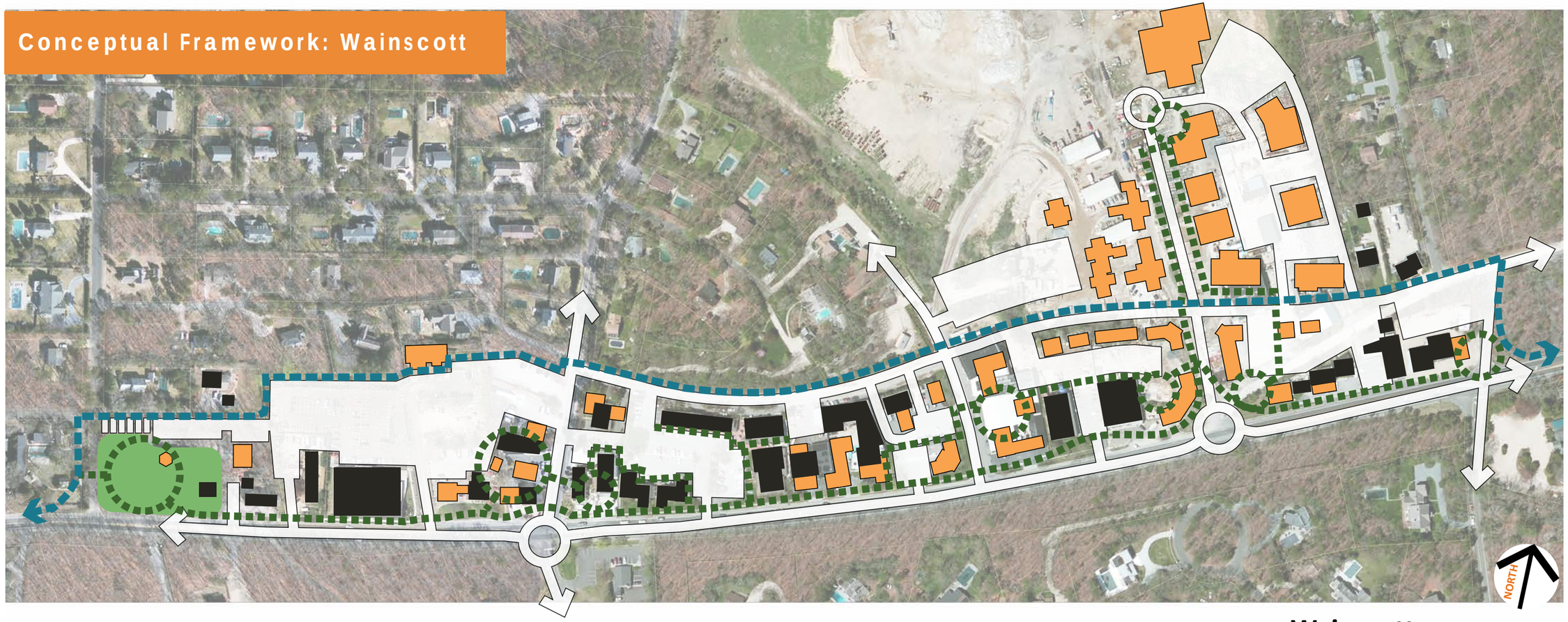


Legend:

- Vehicular circulation
- Pedestrian circulation
- Traffic congestion
- Area of likely future change

Illustrative Master Plan - West Side

Conceptual Framework: Wainscott



Wainscott

0 0.025 0.05 0.1 Miles

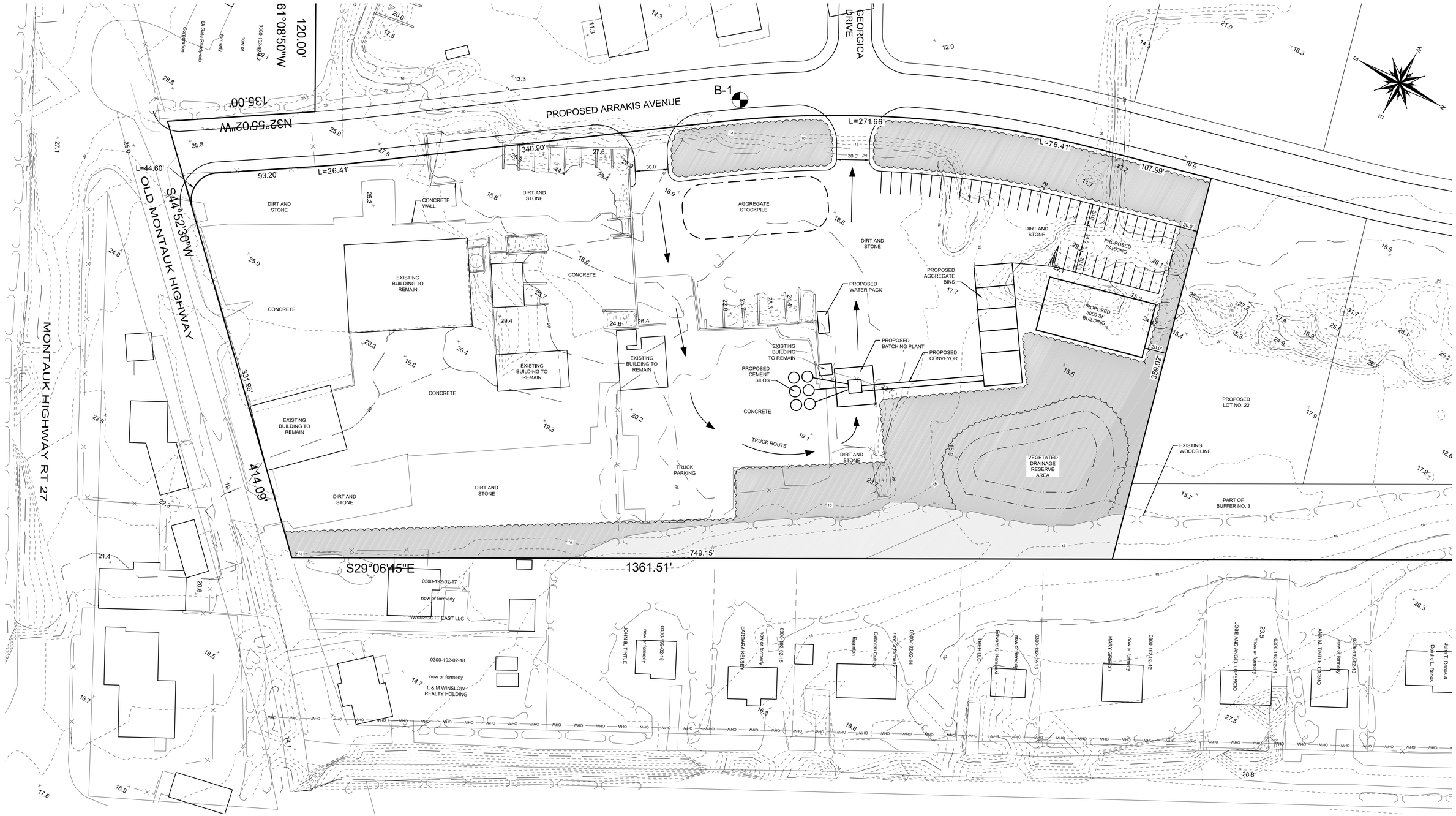
Feet

Legend:

- *Existing Buildings*
- *Potential New Buildings*
- *Parking*
- *Bike Route*
- *Pedestrian Connections & Gathering Spaces*
- *Street Improvements*

APPENDIX I

ALTERNATIVE SITE PLANS



BORINGS

BY EAST COAST GEOSERVICES, LLC
DATED OCT. 13, 2017

B - 1
EL 13 ±

FINE SAND TRACE GRAVEL (SP)	
	-4
	-5.5 GROUND WATER EL. 7.5±
FINE SAND (SP)	
	-8

BOUNDARY EXISTING CONDITIONS AND TOPOGRAPHY FROM THE PRELIMINARY MAP FOR WAINSCOTT COMMERCIAL CENTER PREPARED BY NELSON & POPE DATED DECEMBER 2017.

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.

SITE DATA:

SITE AREA: 323,158 SF ~ 7.42 ACRES
LANDSCAPE AREA: 84,545 SF ~ 1.94 ACRES (26.16%)
S.C.T.M.: 0300-192.00-02.00-6003
EXISTING ZONE: CI

SUBJECT PARCELS ARE LOTS 20, 21, AND PART OF BUFFER NO.3 OF THE PRELIMINARY MAP FOR WAINSCOTT COMMERCIAL CENTER BY NELSON & POPE DATED DECEMBER 2017.

NO.	DATE:	REVISIONS:	BY:
-	-	-	-

P.E. SEAL AND SIGNATURE

CONCEPT PLAN: CONCRETE AND MASONRY SUPPLY YARDS

FOR

WAINSCOTT COMMERCIAL CENTER

SITUATED AT

EAST HAMPTON

TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

NELSON & POPE
ENGINEERS & SURVEYORS
572 WALT WHITMAN ROAD, MELVILLE, N.Y. 11747
PHONE (631) 427-5665 FAX (631) 427-5620
WWW.NELSONPOPE.COM

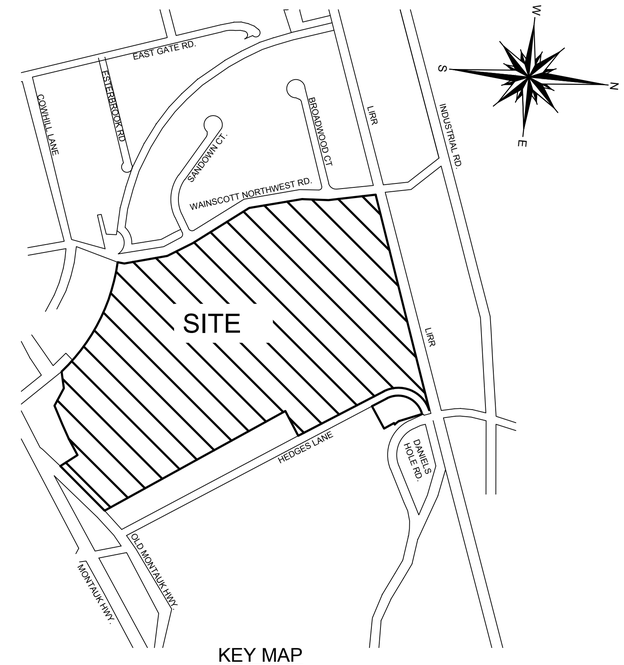
PROJECT NO.:	17071
DRAWN BY:	EA / CCV
CHECKED BY:	VB
DATE:	MAY, 2019
SCALE:	1" = 40'
FILE NO.:	--
CADD:	17071-CP.DWG
DRAWING NO.:	C-101
SHEET NO.:	1 OF 1

dwg=P:\17071\17071\17071-CP.dwg

BORINGS
BY EAST COAST GEOSERVICES, LLC
DATED OCT. 13, 2017

WAINSCOTT NORTHWEST ROAD
BROADWOOD COURT
SAND OWN COURT
16" EXISTING WATER MAIN
LOT 15 67,114 SF 1.54 ACRES
LOT 16 45,000 SF 1.03 ACRES
LOT 17 45,000 SF 1.03 ACRES
LOT 18 45,000 SF 1.03 ACRES
LOT 19 50,735 SF 1.16 ACRES
LOT 20 90,000 SF 2.07 ACRES
LOT 21 104,888 SF 2.41 ACRES
OPEN SPACE 305,000 SF 7.00 ACRES
LOT 22 87,027 SF 2.00 ACRES
LOT 14 40,000 SF 0.92 ACRES
LOT 13 40,000 SF 0.92 ACRES
LOT 12 40,000 SF 0.92 ACRES
LOT 11 40,000 SF 0.92 ACRES
LOT 10 40,000 SF 0.92 ACRES
LOT 9 40,000 SF 0.92 ACRES
LOT 8 54,731 SF 1.26 ACRES
LOT 7 45,000 SF 1.03 ACRES
LOT 6 45,000 SF 1.03 ACRES
LOT 5 45,000 SF 1.03 ACRES
LOT 4 45,000 SF 1.03 ACRES
LOT 3 66,662 SF 1.53 ACRES
LOT 2 100,833 SF 2.31 ACRES
LOT 1 394,654 SF 9.06 ACRES
LOT 23 40,000 SF 0.92 ACRES
LOT 24 40,000 SF 0.92 ACRES
LOT 25 40,000 SF 0.92 ACRES
LOT 26 40,000 SF 0.92 ACRES
LOT 27 40,000 SF 0.92 ACRES
LOT 28 40,000 SF 0.92 ACRES
LOT 29 40,000 SF 0.92 ACRES
LOT 30 40,000 SF 0.92 ACRES
LOT 31 40,000 SF 0.92 ACRES
LOT 32 40,000 SF 0.92 ACRES
LOT 33 40,000 SF 0.92 ACRES
LOT 34 40,000 SF 0.92 ACRES
LOT 35 80,000 SF 1.84 ACRES
LOT 36 80,000 SF 1.84 ACRES
LOT 37 62,186 SF 1.43 ACRES
LOT 38 60,000 SF 1.38 ACRES
WAINSCOTT COMMERCIAL DRIVE WEST
WAINSCOTT COMMERCIAL DRIVE EAST
DRIVE STREET
LONG ISLAND RAIL ROAD
GEORGICA DRIVE
(POTENTIAL RELOCATION OF SUFFOLK CEMENT / POTENTIAL ACQUISITION BY TOWN)
180,364 SF 4.14 ACRES
EXIST.TIN BLDGS. TO BE REMOVED
(SUFFOLK CEMENT)
ABRAMS AVENUE
MONTAUK HIGHWAY
OLD MONTAUK HIGHWAY
PRIVATE ROAD
(HEDGES LANE)
DANIELS HOLE ROAD
OTHER LAND OF APPLICANT 22,488 SF 0.52 ACRES
OTHER LAND OF APPLICANT 1,175 SF 0.03 ACRES
1464.44'
R=212.76'
L 369.12'
535.14'
S22°43'20"E
S29°06'45"E
N75°49'11"E
N10°12'27"W
N09°48'07"W
N06°43'48"W
312.67'
354.18'
288.14'
44.56'
N10°10'02"E
N26°51'27"W
N74°12'20"W
N01°47'11"E
S87°00'50"W
N14°09'20"W
N41°38'00"W
S41°38'00"E
S48°49'00"W
S42°54'21"W
N14°09'20"W
N41°38'00"W
S87°00'50"W
S42°54'21"W
S48°49'00"W
S41°38'00"E
S41°38'00"E
S42°54'21"W
S87°00'50"W
S42°54'21"W
S87°00'50"W
S42°54'21"W
S87°00'50"W

BORINGS
BY EAST COAST GEOSERVICES, LLC
DATED OCT. 13, 2017



KEY MAP
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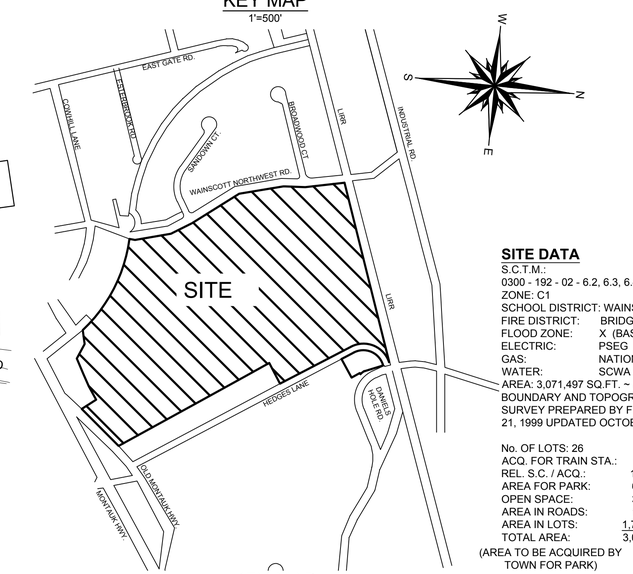


KEY MAP
1'=600'

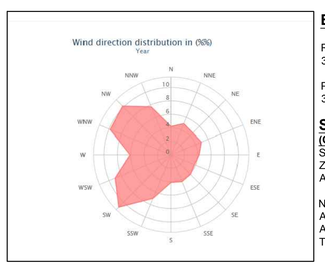
SITE DATA
S.C.T.M.:
0300 - 192 - 02 - 6.2, 6.3, 6.4, 6.5, 6.6, AND 6.7
ZONE: C1
SCHOOL DISTRICT: WAINSCOTT COMMONS
FIRE DISTRICT: BRIDGE HAMPTON FIRE
FLOOD ZONE: X (BASE ELEVATION -NONE)
ELECTRIC: PSEG
GAS: NATIONAL GRID
WATER: SCWA
AREA: 3,071,497 SQ.FT. ~ 70.51 ACRES
BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM SURVEY PREPARED BY FOXLAND SURVEYING DATED JUNE 21, 1999 UPDATED OCTOBER 5, 2017

No. OF LOTS: 26

ACQ. FOR TRAIN STA.:	94,731 SQ.FT. ~	2.17 ACRES
REL. S.C. / ACQ.:	185,331 SQ.FT. ~	4.25 ACRES
AREA FOR PARK:	609,887 SQ.FT. ~	14.00 ACRES
OPEN SPACE:	304,992 SQ.FT. ~	7.00 ACRES
AREA IN ROADS:	175,877 SQ.FT. ~	4.05 ACRES
AREA IN LOTS:	1,700,679 SQ.FT. ~	39.04 ACRES
TOTAL AREA:	3,071,497 SQ.FT. ~	70.51 ACRES

(AREA TO BE ACQUIRED BY TOWN FOR PARK)

Month of year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
	01	02	03	04	05	06	07	08	09	10	11	12	1-12
Dominant wind direction													
Wind probability >= 4 Beaufort (%)	36	40	37	34	26	17	13	13	20	26	27	30	26
Average Wind speed (mph)	10	12	12	10	10	9	8	8	9	9	9	10	9
Average air temp. (°F)	34	34	43	52	61	70	77	76	70	61	50	41	55



PREVAILING WINDS

NOTE: SOLAR ACCESS ORIENTATION -TRUE SOUTH IS OPTIMAL

BUFFER CALCULATION
REQUIRED:
3,130,650 SQ.FT. x 0.10 = 331,065 SQ.FT.

PROVIDE:
331,598 SQ.FT.

SITE DATA
(OTHER LAND OF APPLICANT)
S.C.T.M.: 0300 - 192 - 03 - 11
ZONE: A2
AREA: 42,607 SQ.FT. ~ 0.98 ACRES

No. OF LOTS: 2

AREA IN ROADS:	8,944 SQ.FT. ~	0.21 ACRES
AREA IN LOTS:	33,663 SQ.FT. ~	0.77 ACRES
TOTAL AREA:	42,607 SQ.FT. ~	0.98 ACRES

SCALE: 1" = 150'
0 75 150 300

OWNER/ APPLICANT
OWNER: WAINSCOTT HAMLET CENTER LLC
ADDRESS: 30 MONTAUK HIGHWAY WAINSCOTT NEW YORK, 11975
MAILING ADDRESS:P.O. BOX 1259 WAINSCOTT NEW YORK 11975

OWNER BY LOTS
Wainscott Hamlet Center LLC - lots 6.4 and 6.6
Wainscott Industrial LLC- lots 6.5 and 6.7
Wainscott Commercial Center LLC - lots 6.2 and 6.3.

NO.	DATE:	REVISIONS:	BY:
-	-	-	-

ALTERNATE 4 -HAMLET PLAN
WAINSCOTT COMMERCIAL CENTER
SITUATED AT
EAST HAMPTON
TOWN OF EAST HAMPTON, SUFFOLK COUNTY, NEW YORK

NELSON & POPE
ENGINEERS & SURVEYORS
572 WALT WHITMAN ROAD, MELVILLE, N.Y. 11747
PHONE (631) 427-5665 FAX (631) 427-5620
WWW.NELSONPOPE.COM

PROJECT NO.:	17071
DRAWN BY:	GEO
CHECKED BY:	VB
DATE:	MAY, 2019
SCALE:	1" = 150'
FILE NO.:	--
CADD:	17071 DEIS ALT 5.4A.DWG
DRAWING NO.:	ALT. 5.3

G:\projects\17071\ALTERNATES\17071 DEIS ALT 5.4A.dwg, DEIS ALT 5.3, 5/15/2019 2:39:57 PM, DWG To PDF.pc3

APPENDIX J

EXISTING CONDITIONS PHOTOGRAPHS

Photograph No. 1: Partial view of the southeastern portion of the subject property containing the Southampton Masonry manufacturing showroom, parking areas and storage areas, facing southwest.

Photographs taken by Sarah Singer of Nelson, Pope & Voorhis, LLC, on December 19, 2018.

Photograph No. 2: View of the Southampton Masonry one and two-story tile showroom on the south-eastern portion of the subject property, facing east.

Photograph No. 3: View of the Suffolk Cement ready mix plant and associated storage and parking areas, facing west from within the subject property.

Photograph No. 4: Representative view of the three metal storage buildings along the southern portion of the subject property to be removed, facing northwest.

Photograph No. 5: Representative view the former sand mine area within the subject property, facing north-northwest.

Photograph No. 6: Representative view of the unpaved road/paths and successional old field within the subject property, facing north-northwest

Photograph No. 7: Representative view of a truck storage area successional old field within the subject property, as well as dense vegetation along the eastern property boundary, facing northeast.

Photograph No. 8: Representative view of the vegetation along the northern property boundary to be removed, as well as the dense vegetation along the western property boundary to remain, facing west.

Photograph No. 9: Representative view of the dense vegetation to remain along the southwestern portion of the subject property, facing southeast.

Photograph No. 10: Representative view of the southern access driveways, facing northwest from Old Montauk Highway.

Photograph No. 11: Representative view of the Long Island Rail Road (LIRR) tracks and overpass north of the subject property, facing north from the intersection of Hedges Lane and Daniels Hole Road.

Photograph No. 12: Representative view of the Wainscott Industrial Center north of the LIRR tracks, facing south along Industrial Road.

Photograph No. 13: Representative view of the educational use north of the LIRR tracks, facing south along Industrial Road.

Photograph No. 14: Representative view of the East Hampton Airport, farther north of the subject property, facing north from Industrial Road.

Photograph No. 15: Representative view of the single-family residences east of the subject property, facing northwest along Hedges Lane.

Photograph No. 16: Representative view of the commercial and industrial uses within the hamlet business center south and southwest of the subject property, facing west from the intersection of NYS Route 27 and Old Montauk Highway.

Photograph No. 17: Representative view of the commercial and recreational area/open space southeast of the subject property, facing southeast from NYS Route 27.

Photograph No. 18: Representative view of the single-family residential neighborhoods west of the subject property, facing west from the intersection of Wainscott Northwest Road and Broad Wood Court.