VOLUNTARY DRAFT
ENVIRONMENTAL IMPACT STATEMENT

MANHASSET CREST

46-Lot Residential Subdivision Application

251 Searingtown Road
Incorporated Village of North Hills
Nassau County, New York

NP&V Project #13008

September 2015

Voluntary Draft
Environmental Impact Statement

MANHASSET CREST
46-Lot Residential Subdivision Application

Incorporated Village of North Hills
Nassau County, New York

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SUMMARY

SUMMARY

Description of the Project

Introduction

This document is a Voluntary Draft Environmental Impact Statement (DEIS) for a proposed 46-lot subdivision of 30.43 acre parcel located at 251 Searingtown Road in the Village of North Hills. This document has been prepared in conformance with the New York State Environmental Quality Review Act (SEQRA), as administrated by the Incorporated Village of North Hills Planning Board (hereafter, *"the Board"*). The proposed subdivision, known as *"Manhasset Crest"* is located on the west side of Searingtown Road, across from Christopher Morley County Park, and between North Hills Estates Sections 1 and 2 in the Incorporated Village of North Hills, Town of North Hempstead, County of Nassau, New York. The Nassau County tax lot designation is Section 3, Block 162, Lot 822. **Figure 1-1** shows the location of the project site (*All figures are provided in a separate section at the end of the text portion of this document*). The subject property is located within a moderate density residential community containing multifamily and single-family residences and a large tract of active and passive County parkland (i.e., "*Christopher Morley County Park*"). **Figure 1-2** is an aerial photograph showing relatively recent (2013) conditions at the project site and the buildings, structures, streets, parking lots and the general development pattern of the surrounding area. The applicant for this project is Manhasset Bay Group, Inc. (hereafter, "*the Applicant*").

The project site is zoned "R-3 Residence". The minimum lot area requirement in this zone is 20,000 square feet ("SF") (0.46-acre), lot widths must be no less than 115 feet at the front yard setback line, and the minimum lot frontage is 50 feet. The proposed Preliminary Subdivision Plans, prepared by Nelson & Pope Engineers and Surveyors (see **Attachment 1, Preliminary Map**) depicts a total of 46 residential lots that comply with the above standards, as set forth by Chapter 215, "Zoning", of the Village Code. The Applicant retained a world renowned architectural firm, Gensler, to assist with the lot layout and preliminary architectural concepts for the future single family residential homes. It is the intention of the Applicant to build a premiere luxury residential neighborhood. To achieve this goal, the Applicant retained a world renowned architectural firm, Gensler, to assist with the lot layout and to create the architectural design concepts for the future single family residential homes. The Applicant has worked with the project architect to prepare design guidelines that outline the proposed subdivision design intent (see **Appendix B-1**). These guidelines set forth a high standard of quality and provide visual controls for the proposed homes. As demonstrated by the design guidelines, particular attention will be given to the architectural design, building materials and landscaping, interior and exterior layout of the site and homes, and common area maintenance.

The proposed lots will range from the minimum required 20,000 SF (0.46-acre) to 39,256 SF (0.90-acre). The proposed homes will fully comply with Village height requirements (maximum 35 feet) and building footprints have been analyzed at 15 percent of the lot area within the applicable building envelopes (which could range from approximately 1,300 SF to 5,500 SF). Accessory structures, including potential pool and pool house locations, and detached garages in

a limited location for Lots 24 and 25, have been included on the Preliminary Plans (see **Attachment 1, Preliminary Map**) and are placed within the permitted setbacks of the R-3 District. Such accessory structures are typical of residential single family development, and will be subject to individual plot plan review by the Architectural Review Board pursuant to Chapter 12 of the Village Code. The proposed subdivision also includes a 0.65 acre open space parcel with a 1,500 SF (footprint) clubhouse and associated parking area. The community will be gated, and a gate house is proposed along the site entrance drive from Searingtown Road.

Access to the subdivision will be provided from Searingtown Road at its current location, near the north end of the property. The main access will be gated and a gate house is proposed along the site access roadway. The subdivision will be served by a network of internal streets that will be privately owned and maintained by the property owners association. An emergency only access/egress will also be provided to/from Searingtown Road, south of the main access. The emergency access will be closed off by a crash gate and will only be opened in the event of an emergency. All wastewater generated on the project site will be conveyed off-site via a Nassau County sewerage system for treatment and disposal at the Bay Park Sewage Treatment Plant (STP). The Manhasset – Lakeville Water District (MLWD) provides water service in the area and will be the source of potable drinking water for future homeowners. **Section 1.4** provides a detailed description of the proposed project.

The subject property is the former site of the St. Ignatius Jesuit Retreat Center. The three-story, 87-room, 20,194 SF building that formerly occupied the site has been removed; however, several accessory structures and site infrastructure remain, including: a reflecting pool, stone maze/labyrinth, a small dilapidated shed, another small single-story building that is open on one side and located in the northern portion of the property, an asphalt driveway, three small parking lots, and a sanitary system. These structures will be removed and the sanitary system cesspools bottom sediments sampled, remediated if necessary and properly abandoned under the auspices of the Nassau County Health Department ("*NCHD*") prior to site development.

This Voluntary DEIS has been prepared in accordance with the NYS Environmental Quality Review Act (SEQRA) and its implementing regulations under Part 617, Title 6 of the New York Code of Rules and Regulations (6 NYCRR Part 617). The Applicant has opted to prepare this DEIS voluntarily at the outset of the SEQRA review process in order to provide the Village Planning Board, as lead agency, with a thorough evaluation of the Proposed Action and its potential impacts at the earliest possible stage (hence, a Voluntary DEIS). In accordance with Section 617.6 (a)(4) of SEQRA, the Planning Board may waive the requirement of an Environmental Assessment Form (EAF) Part I, if an application is accompanied by a DEIS. The voluntary DEIS describes the methods and techniques proposed by the Applicant to eliminate or mitigate potential environmental impacts, and provides the bases for issuance of a "Determination of Significance" as required by 6 NYCRR Part 617, SEQRA.

This *Summary* is designed solely to provide an overview of the proposed action, a brief summary of the potential adverse impacts identified and mitigation measures proposed as well as alternatives considered. Review of the *Summary* is not a substitute for the full evaluation of the proposed action performed in Sections 1.0 through 5.0 of this DEIS.

Location

The 30.43-acre property is located on the west side of Searingtown Road, across from Christopher Morley County Park, and between North Hills Estates Sections 1 and 2 in the Incorporated Village of North Hills, County of Nassau, New York. The physical address of the property is 251 Searingtown Road and its Nassau County tax lot designation is: Section 3, Block 162, Lot 822 (see **Figures 1-1** and **1-2**).

The subject site is within the following service and planning districts:

- Manhasset Union Free School District
- Manhasset-Lakeville Fire District
- Manhasset-Lakeville Water District
- Nassau County Police Department (NCPD), 3rd precinct
- Nassau County Sewer Disposal District No. 2 (Albertson – Williston)
- Nassau County Sewer Collection District No. 2 (Albertson – Williston)
- PSEG Long Island (electricity)
- National Grid (natural gas)
- R-3 (Residential) Zone
- North Hills Special Groundwater Protection Area (SGPA)

The subject property is located within the North Hills Special Groundwater Protection Area (SGPA) which is classified as a "critical environmental area" (CEA) by the NYSDEC. Potential impacts to the SGPA/CEA, consistency with the Long Island Special Groundwater Protection Area Plan (1992), and evaluation of this CEA in terms of potential environmental significance are thoroughly examined in **Sections 2.4** and **2.5** of this document.

Application Background

The project team and Village Planning Board met for a pre-application conference on March 11, 2014 pursuant to Village Code Chapter 179, "Site Development Regulations," "Article II: Pre-application Conference." The purpose of this meeting was to discuss proposed plans for subdividing the subject property and to open up a dialogue between the Applicant and Village Planning Board regarding project sponsor and Village goals, the application review process, applicable rules and regulations, and to request and receive initial feedback from the Planning Board as to possible issues and concerns it may have and any guidance or input it would like to provide. The Planning Board provided the Applicant with its input and guidance and the process proceeded to the next phase.

The pre-application stage of review was followed by the Sketch Plat Application phase as described by Chapter 179, "Site Development Regulations," "Article III: Sketch Plat Application" of the Village Code. During this phase of review, the Applicant submitted an application and sketch plat depicting a preliminary layout, drainage, roadways, and other pertinent features for the Planning Board's review and consideration. Additionally, a Yield Map of the property was submitted, fully compliant with the Village R-3 dimensional standards, full 50-foot wide roadway right of way and secondary emergency access (see **Attachment 2, Yield**

Map). The Planning Board reviewed the application, sketch plan and yield map, and determined at its August 13, 2014 meeting that the sketch and other materials were adequate to proceed to the Preliminary Application stage. As part of the Planning Board's review of the sketch plat, the Board requested that an emergency access be provided, and noted the presence of three significant trees/tree masses that warranted protection on the property. These three areas include a large Weeping European Beech and two areas of European Purple Beech, which are proposed to be retained (see **Existing Conditions – Demolition Plan, Attachment 2**).

This Voluntary DEIS is submitted in lieu of an Environmental Assessment Form (EAF) Part I as permitted by § 617.6 (a)(4) of SEQRA. It has been prepared pursuant to and in conformance with the content requirements of SEQRA and contains the essential information to inform the public about the project and for the Lead Agency and other involved agencies to base their final decisions.

Project Design and Layout

The proposed project involves the creation of a 46-lot single-family residential subdivision on a 30.43-acre parcel located west of Searingtown Road and Christopher Morley County Park and north, south, and east of existing multifamily residential development in the Village of North Hills. Lots will range from the minimum of 20,000 SF (0.46-acre) to 39,256 SF (0.90-acre) with an average lot size of ±0.55-acre. The narrowest of the proposed lots will have a width at the front yard setback line of 115 feet and a minimum of 83 feet of road frontage, thereby complying with the zoning requirements for new lot configuration in the R-3 zoning district. Access to the subdivision will be provided from Searingtown Road at its current location, near the north end of the property. The existing site access is approximately 50 feet wide at the entrance point on Searingtown Road, and narrows to approximately 20 feet in width as it extends into the site. The proposed access point would remain in its current location, but is proposed to be widened to allow for two separate ingress and egress lanes, which are proposed to be gated and controlled by security. The proposed interior roadways will be privately owned and maintained by the homeowners association. The right of way and pavement width is proposed to be 30 feet wide, consistent with many private developments within the Village.

Two accessory structures are proposed in support of the residential lots: a gatehouse located along the main access roadway, and an approximately 1,500 SF (footprint) clubhouse located within an approximately 0.65 acre open space area on the south side of the proposed entrance road and abutting Searingtown Road. The clubhouse is anticipated to be single-story building with finished basement. The proposed clubhouse is anticipated to provide recreational amenities (such as a fitness room and card lounge) for the exclusive use of the homeowners and their guests. A 15 space parking lot will be provided for employees and residents.

This single family residential land use fully complies with the use requirements of the district as set forth under § 215-11 C. of the Village Code and meets the Village's yield standard. The proposed subdivision also complies with the dimensional zoning standards set forth by the Village of North Hills Code, with the following waivers and relief requested:

- Front Yard Principle Structure Setback: A Planning Board waiver is required for the relaxation of the minimum 50 foot front yard setback by to a minimum of 45 feet and an average of no less than 50 feet with the maximum front yard setback being no more than 20 feet greater than the minimum front yard setback on the site, as permitted by § 215-11 D. (4)). A waiver for 45 foot setback is requested for Lots: 1, 7, 23-28, 35, 37 and 44.

- Maximum Street Gradient: A Planning Board waiver is required for the relaxation of maximum street gradients exceeding an 8% slope to allow a maximum slope of nine percent for an approximately 60 linear foot area along the access roadway (§ 179-40 L. (1)).

- Minimum Right-of-Way (ROW) Width and Street Width: A Planning Board waiver is required for the relaxation of the minimum right-of-way (ROW) width from 50 feet to 30 feet (§ 179-40 H. (1)) and for reduction of street width of 34 feet to 30 feet.

- Setback from Searingtown Road (CR 101): ZBA variances pursuant to § 215-24 F. (1) are required for the relaxation of the 150-foot setback requirement from Searingtown Road for:
    - The gatehouse will be setback approximately 92 feet from the County right-of-way
    - The clubhouse parking area will be setback approximately 48 feet from the County right-of-way.
    - Proposed retaining walls within the 150 foot setback for the emergency access road, Lots 23-26 and the clubhouse due to steep topographic conditions.

- Clubhouse Front Yard Setback: ZBA variance for the relaxation of the front yard setback for the clubhouse from 50 (or 45 pursuant to § 215-11 D. (4)) to 27 feet to the internal roadway.

Based on comments received from the Planning Board during the initial Sketch Plan phase, three large specimen trees or tree masses identified on the property containing a Weeping European Beech and two areas of European Purple Beech will be preserved. Additionally, existing wooded buffers are proposed to be retained along Searingtown Road in the southeast portion of (across from the County Park) and along an existing Scenic Easement located in the north central and northwestern perimeter of the property.

The proposed subdivision includes an extensive landscape plan to provide privacy and buffer the proposed development (see **Attachment 1, Landscape and Street Lighting Plan)**. As part of the subdivision improvements, the Applicant proposes the installation of evergreen screen comprised of a staggered double row of evergreen trees along the perimeter of the property were natural vegetation will be removed (see **Landscape and Street Lighting Plan, Attachment 1**). This evergreen buffer proposes species planted 10 to 12 feet in height to provide immediate screening of the proposed residences from adjacent properties. Street trees will be planted along both sides of each of the proposed streets, and will be spaced, on average, 40 feet on center. Decorative street lighting will line one side of each of the streets and, like the street trees, will also be spaced at 40-foot intervals. Numerous trees and shrubs, including both evergreen and deciduous species, will be provided along the shoulders of the main access road, within the main access road's median, and around the proposed stormwater recharge basin. Extensive landscaping is also proposed along the proposed emergency access road and around the proposed clubhouse parking lot to provide screening of these areas along Searingtown Road. This

proposed landscaping and the retention of natural areas in the southeastern portion of the property will also screen the proposed retaining walls within the 150 foot setback along Searingtown Road. Individual lots will be landscaped after homes are constructed to further enhance residential privacy, the physical beauty and character of the development and area, and to screen and buffer any potentially undesirable aspects of development (see "**Typical Lot Planting Plan**" schematic provided on **Attachment 1, Landscape and Street Lighting Plan**).

Stormwater from the private street system will be captured in a series of drainage inlets and conveyed to a proposed recharge basin and several clusters of interconnected leaching pools proposed within several proposed drainage easements located along the access roadway throughout the property and along the emergency access roadway. The existing recharge basin located at the northeast end of the property near Searingtown Road (in the pan-handle portion of the property) serves the adjacent multi-family development to the north. This existing recharge basin is proposed to remain unchanged. The proposed recharge basin for use by the Manhasset Crest residences would be located to the south of the existing recharge basin, on the north side of the main access (approximately 62,000 cubic feet of storage volume). Additionally, a 15 foot wide drainage easement with eleven leaching pools exists along the southern perimeter of the property. This drainage easement is proposed to be slightly expanded and additional leaching pools installed to ensure stormwater is adequately collected and recharged from the proposed development. Additionally, leaching pools will be provided on the individual lots to provide stormwater catchment from roofs and other impervious surfaces and landscaped areas. The overall drainage system is designed to store in access of a five-inch rainfall (see **Utility Plan, Attachment 1**).

All wastewater generated on-site will be conveyed to the existing Nassau County sanitary sewer available in the right-of-way of Searingtown Road for conveyance to and ultimate treatment and disposal at the County's Bay Park Sewage Treatment Plant (STP). Potable water will be furnished by the Manhasset-Lakeville Water District. School aged children to attend the public school system will attend Manhasset Union Free School District and fire and police services will be provided by Manhasset-Lakeville Fire District the Nassau County Police Department's 3rd Precinct, respectively.

The proposed homes will fully comply with Village height requirements (maximum 35 feet) and building footprints have been analyzed at 15 percent of the lot area within the applicable building envelopes (which could range from approximately 1,300 SF to 5,500 SF). Accessory structures, including potential pool and pool house locations, and detached garages in a limited location for Lots 24 and 25, have been included on the Preliminary Plans (see **Attachment 1, Preliminary Map**) and are placed within the permitted setbacks of the R-3 District. Such accessory structures are typical of residential single family development, and will be subject to individual plot plan review by the Architectural Review Board pursuant to Chapter 12 of the Village Code.

Sustainable strategies will be incorporated into the home designs to provide both efficiency and energy savings. The Manhasset Crest Design Guidelines (**Appendix B-1**) include sustainability requirements which will provide for energy efficiency and water use savings. These include compliance with the following:

- All homes will achieve WaterSense label (an U.S. Environmental Protection Agency, "EPA" Partnership Program[1]), which are designed to reduce residential water use indoors and out by approximately 20 percent, allowing homeowners to use less water and energy. Design considerations include demand-controlled recirculating hot water systems and WaterSense labeled fixtures for kitchens and bathrooms.
- All homes will meet Energy Star homes design standards, which provide energy efficiency savings of up to 30%, including excellent air sealing, appropriately-sized mechanical equipment, and proper ventilation in bathrooms and kitchens.
- All homes will meet EPA Indoor airPLUS labeling in conjunction with the Energy Star label. This label requires installation of features that do not introduce pollutants to the air in and around the home during construction and occupancy

Construction Schedule and Site Operation

Most of the subject property will be disturbed for the construction of streets and drainage improvements, installation of utilities, lot preparation, and home and driveway construction. As can be seen in **Figure 1-2**, the central and south-central portions of the site, where most of the previous development and other site disturbances had occurred, will require much less clearing than some perimeter areas where natural vegetation still exists.

There are several buildings and miscellaneous other structures that currently exist on the site, including a 108 SF pool shed, 522 SF garage, and 511 SF one-story masonry building, paved parking lots and driveways, a reflecting pool, stone maze, several sets of slate steps, a brick patio and other minor features. These buildings and structures will be demolished and shipped to a licensed off-site location that accepts C&D materials for proper disposal. . Prior to demolition, an asbestos survey will be conducted to determine if asbestos may be present in any of the structures to be removed. Any known or suspected asbestos containing materials (ACM) that are identified will be removed in accordance with the NYS Department of Labor Industrial Code, Part 56. Based on the Phase I and Limited Phase II Environmental Site Assessments (ESAs) (**Appendix D)** that were previously conducted at the subject property, the only outstanding work that must be performed to address ESA concerns is the abandonment of a former sanitary system, which will include bottom sediment sampling of the cesspools and any necessary remediation prior to closure. This work will be conducted under the supervision of the NCDH in accordance with its sanitary system abandonment procedures, prior to the issuance of building permits. Overall, demolition activities and sanitary system abandonment are expected to take a limited period of time (2-3 months).

Access to the property during construction will be via Searingtown Road. The preferred route would be from the LIE to the North Service Road to Searingtown Road. These are major roadways which currently experience significant truck traffic. The property is large enough to provide staging areas and worker parking on-site; thus no worker parking is anticipated to occur on public streets. Construction activities that may generate significant noise must be conducted

[1] http://www3.epa.gov/watersense/

Monday through Friday between the hours of 8:00 am and 5:00 pm to conform to Chapter 156, "Noise," of the Village Code.

The construction process will begin with the installation of project limiting fencing to establish clearing limits and placement of silt fencing and perimeter erosion controls to minimize the transport of soil on and off-site during the construction period. The existing/remaining structures will be demolished and the debris generated from this demolition will be trucked off-site to an approved construction and demolition (C&D) landfill for disposal. Tree clearing will then take place, followed by overall rough grading, recharge basin excavation and the installation of retaining walls to establish the required street grades and lot areas for future individual lot development. Drainage improvements, stabilization of the interior roadways and the emergency access, and underground utilities will then be constructed or installed. The clubhouse, gatehouse and site entrance roadway are expected to first be completed, followed by landscaping of these areas. Installation of the subdivision interior roadways, drainage and subsurface utilities may proceed in a single phase or in multiple phases depending on lot sales. Perimeter and common area landscaping will be installed as season permits, once rough grading is completed and interior access roadways are established.

Individual lot development will be subject to individual lot Architectural Review Board and building permit review. Construction on each lot is anticipated to proceed as the lots are sold and custom homes are designed for each lot, and necessary approvals are received. Generally, construction on each individual lot is anticipated to take 12-18 months.

Project Benefits

The benefits of the proposed project are based on social, economic and land use considerations include new housing opportunities, substantial fiscal and economic benefits, and placement of this vacant and underutilized property into a more viable permanent productive taxable land use. The project will provide an opportunity for high quality residential housing in a desirable area of the Village of North Hills. The community will benefit economically from the increased value of the property. The development will be self-contained and sustainable and utilize its own private streets, thereby absorbing the costs associated with their maintenance and upkeep. The proposed project will also result in the generation of a substantial number of jobs during the construction phase of the project, with subsequent secondary spin-off or "ripple" effects that will increase the demand for goods and services within the local area, during and following construction (i.e. clearing, landscaping, maintenance, plowing) and consumer spending (food, furnishings, apparel, personal services, entertainment, etc. The project will also provide a permanent land use for the site that is viable and has a high probability of success through full utilization of the site.

Permits and Approvals Required

This Voluntary DEIS has been prepared in accordance with the NYS Environmental Quality Review Act (SEQRA) and its implementing regulations under Part 617, Title 6 of the New York Code of Rules and Regulations (6 NYCRR Part 617). The Applicant has opted to prepare this

DEIS voluntarily at the outset of the SEQRA review process in order to provide the Village Planning Board, as lead agency, with a thorough evaluation of the Proposed Action and its potential impacts at the earliest possible stage (hence, a Voluntary DEIS). In accordance with Section 617.6 (a)(4) of SEQRA, the Planning Board may waive the requirement of an Environmental Assessment Form (EAF) Part I, if an application is accompanied by a DEIS. The voluntary DEIS describes the methods and techniques proposed by the Applicant to eliminate or mitigate potential environmental impacts, and provides the bases for issuance of a "Determination of Significance" as required by 6 NYCRR Part 617, SEQRA. The Village Planning Board can either issue a Negative Declaration, if no significant adverse environmental impacts are identified, or issue a Positive Declaration, if one or more significant adverse impacts are identified. A Negative Declaration concludes the environmental review process pursuant to SEQRA. A Positive Declaration would require the preparation of a Final EIS. Upon completion of an FEIS, the Board will be responsible for the preparation of a Statement of Findings, which would provide the basis for the final decision on the application. The table below lists the permits and approvals required for the proposed project, along the reviewing/issuing agency.

PERMITS AND APPROVALS REQUIRED

Agency	Approval
Incorporated Village of North Hills Planning Board	Subdivision, waivers
Incorporated Village of North Hills Board of Appeals	Variances for accessory structure setbacks and clubhouse parking setback
Nassau County Planning Commission	239m Referral
Nassau County Department of Health	Water Supply Sewage Discharge
Wastewater Treatment Contract	Sewer District No. 2 (Albertson – Williston)
Manhasset – Lakeville Water District	Water Supply Connection
Nassau County Department of Public Works	Road Access Permit, Drainage & Sewer Connection, Waiver of 8" drainage requirement to 5"
SPDES Stormwater Permit	NYSDEC
Incorporated Village of North Hills Architectural Review Board	Individual Lot Development
Incorporated Village of North Hills Building Department	Demolition and Building Permits

Anticipated Impacts and Proposed Mitigation

<u>Topography</u>

The proposed project will result in changes to the existing site topography to provide suitable terrain for home and driveway construction, as well as for excavations for stormwater control infrastructure, building foundations, and underground utilities, and construction of the proposed

access road and emergency access. The **Grading Plan** (see **Attachment 1** at the end of this document) depicts the grading to be performed on the project site.

Grading and construction activities will require the clearing/disturbance of most of the subject property; however, an estimated 1.44 acres will be kept as naturally vegetated perimeter buffer, an additional 0.54 acres associated with the three tree clusters will remain undisturbed and approximately 18.90 acres is anticipated to be landscaped. The total site vegetation, therefore, is ±20.34 acres or approximately 66 percent of the 30.43-acre site. **Table 1-1** provided in Section 1.4 of this DEIS contains a summary of the subject site's existing and proposed coverages and physical characteristics.

The proposed grading plan has been designed to follow the existing site topography to the extent possible. The proposed site access roadway is designed to align to meet the existing grade to the extent possible, while maintaining the necessary slope standards for roadway construction. Rather than mass grading the overall site to a level grade, the intent to allow for grade transitions within the individual lots through the design of the individual homes. As the homes are designed, a more individual, lot by lot grading concept can be applied around each lot's existing topography. This provides for significant reductions in the amount of cut required across the site, as well as provides for greater design interest and individuality in development of each of the lots. This approach also allows for future design flexibility and the potential to retain certain individual trees on a lot as the individual homes are designed. It is noted that grading of the individual lots is also necessary to direct stormwater to on-site drainage systems. Retaining walls will be necessary to accomplish the grade transitions on the individual lots and to minimize grading and retain existing vegetation, including the northern most specimen tree preservation cluster. In particular, lots in the south and southeast side of the property, lots along Searingtown Road, lots in the northwest corner of the property and the lots surrounding the northern specimen tree cluster are expected to require use of retaining walls. Retaining walls are also required for the proposed emergency access roadway, in order to provide an adequate grade up the hillside.

The new 0.74-acre stormwater recharge basin on the north side of the site access road will require excavations from the existing surface elevation of 230 feet to the proposed 208 foot contour at the center bottom of the basin for a total maximum depth of 22 feet. The existing and proposed recharge basins and leaching pools and drywells at various locations throughout the property will capture and recharge stormwater generated on paved surfaces by a minimum of a five-inch rainstorm. A waiver from the NCDPW drainage requirements to collect an eight-inch rainfall will be requested, although the drainage design for the individual lots within the watershed of the Nassau County roadways are designed for an eight-inch rainfall event The total stormwater storage provided is approximately 175,051 CF (see **Drainage Plan**, **Attachment 1**). The total quantities of the cut and fill for site development activities are estimated to be approximately 145,500 cubic yards (CY) of cut (including the excavations necessary for the recharge basin and overall site grading), of which approximately 60,000 CY will be utilized on-site for fill; resulting in an estimated 85,500 CY of excess material that will be exported off-site (much of which comes from the 62,000 CF capacity recharge basin). It is expected that five trucks (with 30 yard capacity), making 10-15 round trips per day would be able to complete the removal of this material in approximately 8-11 weeks (assuming a five day

work week). It is anticipated that multiple trucks will be staged on-site for loading to expedite the removal schedule. Truck traffic would be temporary, and would occur on roads that currently provide access for buses and trucks (Searingtown Road, LIE service road and LIE). (See **Section 1.5** for additional discussion on the anticipated construction schedule and construction control measures).

Short-term (i.e., construction period) impacts may occur include noise and dust raised by truck movements, particularly during clearing-grading operations and off-site trucking. Construction traffic will enter and exit the site from the existing access/egress off of Searingtown Road. Access to Searingtown Road and the subdivision property can be accessed via major streets and highways (the LIE, LIE service roads, Searingtown Road, etc.) and therefore no residential neighborhoods will be significantly affected. Most equipment operations and construction will occur on the interior of the site and, it is noted that these impacts, while unavoidable, are temporary in nature. Construction hours will occur on weekdays between 8:00 am and 5:00 pm, exclusive of legal holidays, in accordance with the requirements of § 156-3 G., "Enumeration of prohibited noises," of the Village Code.

Proposed Mitigation

- Grading, drainage, and erosion and sedimentation control plans have been prepared to address impacts associated with slope disturbance and the modification of existing surficial landforms and drainage patterns (see **Attachment 1**). Techniques identified by the above referenced plans to stabilize slopes, prevent or mitigate erosion and sedimentation, ensure proper drainage, and prevent other topography related impacts include but are not necessarily limited to: delineation of site clearing limits (including around the three tree clusters to be preserved, the natural buffer areas on the east side of the property, the scenic easement, etc.), silt fencing along work area perimeters, soil stockpile stabilization (seeding or mulch for periods of non-disturbance lasting longer than 7 days and stockpiles), inlet protection, check dams and temporary diversion swales, perimeter berms, development and/or reseeding/ revegetation of bare soils as soon as possible after disturbance, use of retaining walls in areas with abrupt grade changes, curbing and street crowns to ensure the collection of stormwater along proposed streets, and the capture and recharge of stormwater flows from impervious surfaces on-site through a system of catch basins, leaching pools, and new and expanded recharge basins that are designed in conformance with professional engineering standards and specifications.
- Coverage under the General Permit for Stormwater Discharges from Construction Activities (NYSDEC Permit No. GP-0-15-002, General Permit) will be sought and a SWPPP will be prepared.
- The hours of truck operation on roadways will conform to Village noise regulations outlined under § 156-3 G., "Enumeration of prohibited noises," of the Village Code, and as such, will be limited to the hours of 8:00 am through 5:00 pm, Monday through Friday, exclusive of legal holidays. All construction vehicles will be staged on-site and will under no circumstances be parked within the rights-of-way of any public or off-site privately owned street.

Soils

As noted in Section 2.1.2, the majority of the site will be graded and a significant volume of the existing soils (a net 85,500 CY) will be cut from the site. There is significant depth to groundwater beneath the site (ranging from approximately 132 feet to 202 feet below the ground surface). Based on the wetland mapping for the area (see Figure 2-6), no natural wetlands exist on the property; however, fine textured soils in some locations on the property may restrict soil

drainage and groundwater recharge leading to soil dampness. Fine textured soils that may restrict the percolation of water or promote frost action will be replaced as needed to ensure suitable drainage in stormwater recharge basins and to provide appropriate road beds for streets. Foundation drains and drywells can be provided to address soil wetness or drainage issues associated with the lots and future home construction. Since the proposed 46 homes will be connected to public sewers rather than individual on-site sanitary systems, the discharge and percolation of wastewater on-site will not occur and is not an issue.

Some of the steepest slopes on the property, particularly those existing on the southeast side along Searingtown Road and within the proposed natural buffer area, will remain undisturbed. However, considerable cut and grading is required along the proposed emergency access road so that suitable grades can be provided for emergency vehicle access. A retaining wall will be constructed parallel to each side of the emergency access road in this area to accommodate the necessary slope and anticipated grade change for the access road. Retaining walls are also necessary within the individual lots located on the southern and southeastern sides of the property and on the northwest side along the existing scenic easement. Notwithstanding the alteration and required stabilization of these steep slopes and the avoidance of other steeply sloping areas along the property perimeter, some smaller areas containing moderate to steep gradients will be disturbed as well. Grading plans, erosion and sedimentation controls, slope stabilization, proper engineering, reintegration of approximately 60,000 CY of fill, and compliance to any stormwater permit standards and SWPPP controls (if required) will ensure that the impacts from slope and soil disturbance are minimal. Soils will be reworked and redistributed to prepare the site for building, street and driveway construction, and landscaping.

The proposed drainage system, including its leaching pools and the proposed recharge basin, will collect and recharge stormwater on-site. In areas having restrictive fine-textured or loamy soils, excavations will be backfilled with coarse textured soils that are more suitable for recharging stormwater to the subsurface. Site soil conditions have been considered in the design of the project to ensure that soil limitations are addressed and potential impacts are mitigated. The proposed drainage system, including its leaching pools and the proposed recharge basin, will collect and recharge stormwater on-site. In areas having restrictive fine-textured or loamy soils, excavations will be backfilled with coarse textured soils that are more suitable for recharging stormwater to the subsurface. Site soil conditions have been considered in the design of the project to ensure that soil limitations are addressed and potential impacts are mitigated.

Phase I and Limited Phase II Environmental Site Assessments (ESAs) were conducted at the subject property to investigate possible environmental or public health concerns relating to any past or present use, storage or disposal of hazardous materials on or near the project site. Phase I ESAs consider potential soil, groundwater and other types of site contamination that may need to be addressed to ensure a clean and healthy environment. They typically involve investigations into potential sources of site contamination such as above or below ground fuel storage tanks and the identification of site infrastructure such as stormwater leaching pools, sanitary systems and floor drains, which may act as conduits for pollutant delivery to soil and groundwater. The Phase I ESA report dated August 23, 2013 for 251 Searingtown Road indicates that property site inspections; interviews with the facility's maintenance director; review of historical aerial

photographs, Sanborn Maps, and USGS topographic maps; and extensive government records and agency database reviews were performed as part of the investigation. The Phase I ESA report was completed in accordance with the standards set forth in the ASTM E 1527-05 and the USEPA AAI.

All issues and concerns identified by the Phase I and II ESAs have been addressed with the exception of the abandonment of the existing sanitary system.

Proposed Mitigation

- Erosion-preventive measures during the construction process include: minimizing the time that bare soil is exposed to the elements, use of groundcovers (seeding and paving/construction), erection of project limiting fencing to prevent unnecessary clearing and ground disturbance, installation of silt fencing to prevent off-site deposition of sediment, wetting of dusty areas to limit windblown sediment from being transported off-site, incorporation of cut back into the site to the extent possible, use of rumble strips to prevent the tracking of dirt on to Searingtown Road, and use of inlet protection and drainage diversions to prevent siltation of drainage infrastructure.
- Foundation drains and waterproofing can help to address concerns associated with restrictive drainage around building footprints.
- The majority of deeper subsurface soils identified by the test hole locations demonstrate adequate leaching characteristics for proper functioning of drainage systems. If necessary, the base of proposed leaching pools will be over excavated and backfilled with coarse grained backfill as needed to ensure that drainage systems function properly.
- Site grading, reseeding, revegetation and construction of retaining walls will help to overcome slope constraints.
- Preservation of natural areas at the southeast end of the site and existing scenic easement at the north end of the site will limit impacts.
- The project team will determine the location of the existing sanitary system on-site and conduct bottom sediment sampling and remediation if necessary in accordance with NCHD standards and requirements, including backfilling excavations with clean fill
- During grading operations, truck traffic to and from the site will be routed along the (LIE, LIE service roads) to the maximum extent practicable. The subject 30.43-acre property has ample space to fully accommodate construction vehicles during the construction process, thereby keeping work vehicles off public rights-of-way.

<u>Subsurface Geology</u>

The surface of glacial till deposits, topography, and geomorphology at the subject property will be disturbed to provide suitable land surface conditions for residential development, as well as the installation of foundations, drainage infrastructure and underground utilities. Current cut and fill estimates for the subdivision indicates the need for an estimated 85,000 CY of net cut. The existing surficial geology (i.e., glacial till) and geomorphology (i.e., top and side slopes of hills formed on the Harbor Hill Terminal Moraine) are common to Long Island and no unique geologic features or landforms were identified on or adjacent to the site.

The property is located within the North Hills Special Groundwater Protection Area (SGPA) (deep aquifer recharge area) and as such, has been classified by the NYSDEC as a "Critical Environmental Area" (CEA). The project was reviewed for consistency with the Long Island Regional Planning Board's "Long Island Special Groundwater Protection Area Plan" (1992) and it has been determined that the project does not conflict with its recommendations for the North Hills SGPA (See **Section 2.5.2**).

Depth to groundwater at the site ranges between approximately 136 feet to 210 feet below the ground surface (bgs) (132 to 202 feet bsg after site grading). While significant cut will be required in some areas and excavations will be required for the construction of foundations and installation of utilities, excavations will not be so deep as to intersect the groundwater table. The depth to groundwater from the regraded land surface will be sufficient for proper filtration of stormwater recharged by the leaching pools and the recharge basin proposed the on-site drainage system. The property will be sewered thereby eliminating a potential source of pollution and drainage will be controlled through temporary retention and discharge to minimize possible impacts to local groundwater quality and hydrogeologic conditions. Drainage system designs will be reviewed in detail (along with general engineering review) as part of the subdivision review process by the Village. The area is served by a public water purveyor (MLWD). The supply is routinely monitored and treated to ensure the delivery of potable water to MLWD customers.

The only Environmental Site Assessment (ESA) condition that had not been rectified at the time of VDEIS preparation was the identifying the location of the existing on-site sanitary system and abandoning it in accordance with Nassau County Department of Health and EPA requirements. All existing on-site buildings have been inspected as part of the Phase I ESA for the potential of potential recognized environmental conditions and none were identified. The contaminated sediment previously found within existing storm drains in the driveway and parking area was removed and the on-site fuel oil tank has been removed (see **Appendix D-3**). Based on the foregoing information, there are no known or suspected impediments to the safe use of the site for residential purposes.

Proposed Mitigation

- All residences and the clubhouse will connect to the Nassau County sewer system. Wastewater from the development will be conveyed to the County's Bay Park Sewage Treatment Plant for treatment and disposal. Connection to the County sewer system will help protect the underlying groundwater/hydrogeologic resources and the North Hills SGPA.
- Prior to demolition of the remaining accessory buildings, an asbestos survey will be conducted to determine if asbestos may be present in any of the structures to be removed. Any known or suspected asbestos containing materials (ACM) that are identified will be removed in accordance with the NYS Department of Labor Industrial Code, Part 56.
- Stormwater generated from proposed streets, driveways, and building roofs will be captured and recharged on-site through a system of leaching pools, roof drains and the subdivision's

stormwater recharge basin. Stormwater systems will be designed in accordance with state and local specifications.

- Prior to the development, the existing sanitary system on-site will be located and removed or abandoned in accordance with NCHD and EPA standards, including sampling of bottom sediments and remediation (if required).
- Phase I and Limited Phase II ESAs were completed at the project site. An underground fuel storage tank and contaminated sediment found in the former building's floor drains and the parking lot and driveway storm drains have been removed (**Appendix D-3**).

Water Resources

Drainage

There are no natural wetlands or surface water bodies on-site or within at least 1,000 feet of the property (see **Figure 2-5**). The only existing surface water features on-site and in the area are man-made stormwater recharge basins serving area streets, the County park, and other area developments. The subdivision of the property and construction of 46 homes and supporting infrastructure is not expected to impact natural surface waters or wetlands in the area, due to their significant distance from the project site and presence of considerable intervening development between such features.

Development will result in the installation of impervious surfaces consisting of buildings and paved parking areas, which will significantly increase the volume of stormwater generated on-site. All stormwater generated by these surfaces will be captured and recharged on-site into the local groundwater system through a series of interconnected leaching pools, a new recharge basin, and roof gutter/leader/drywell systems, and by direct recharge in areas with pervious ground cover. The efficiency of stormwater control and recharge will be enhanced through site grading, street curbing, and placement of granular fill material around the proposed leaching pools if required to promote leaching. Drainage systems will be designed in accordance with the requirements of the Village and Nassau County Department of Public Works (NCDPW).

The proposed drainage system is designed to meet the minimum storage requirements of a 5-inch rainstorm. The proposed drainage system is designed to accommodate a total of 175,051 CF (see **Utility Plan, Attachment 1**). A waiver from the NCDPW drainage requirements to collect an eight-inch rainfall will be requested, although the drainage design for the individual lots within the watershed of the Nassau County roadways are designed for an eight-inch rainfall event. The proposed project therefore provides the engineering and infrastructure necessary to contain stormwater from a 5-inch rainfall on-site, with additional infiltration of stormwater provided through the bottoms of the proposed leaching pools systems. The drainage system design will prevent stormwater from running off-site to adjacent streets and private properties.

Surface Water and Wetlands

There are no natural surface waters or wetlands on or immediately adjacent to the project site. Stormwater generated from impervious surfaces will be retained and recharged on-site. The drainage system will be designed consistent with standard engineering principles and practices

and to the satisfaction of NCDPW and the Village. Depth to groundwater is sufficient to ensure suitable stormwater recharge. Soil conditions will be considered during leaching pool installation and recharge basin construction and any materials found to be unsuitable will be removed and replaced with clean coarse textured fill. Wastewater generated on-site will be conveyed to the Bay Park STP for treatment and disposal. No impact to surface water or wetlands is anticipated.

Groundwater

The subject property is located within the North Hills SGPA deep recharge critical environmental area. Depth to groundwater is estimated to be 132 feet below proposed grade and a maximum of approximately 202 feet below proposed grade. This considerable depth to groundwater will help to provide significant filtration, diffusion, and attenuation of some pollutants. The MLWD supply contains trace VOCs, therefore, the water is treated to ensure the waters conformance to established water quality standards and thus its potability. The MLWD also recently constructed a nitrate removal system at its Searingtown Road plant to address nitrate in groundwater.

The proposed subdivision will be served by public sewers. Wastewater from the subdivision will be conveyed to the Bay Park STP where it will be treated and released pursuant to the plant's discharge permit. Connection to the County sewer system will preclude the need for individual on-site sanitary systems and any direct discharge of sewage to the North Hills SGPA and the underlying aquifer. Stormwater from the development will be collected and recharged on-site.

in recharge volume is not expected to be large enough to cause a significant adverse impact on the water table (e.g., mounding or flooding), due to the significant unsaturated depth of earth underlying the site (a minimum of approximately 132 feet below proposed grade and a maximum of approximately 202 feet below proposed grade).

Surface Water and Wetlands

There are no natural surface waters or wetlands on or immediately adjacent to the project site. Stormwater generated from impervious surfaces will be retained and recharged on-site. The drainage system will be designed in consistent with standard engineering principles and practices and to the satisfaction of the Village Engineer. Depth to groundwater is sufficient to ensure suitable stormwater recharge. Soil conditions will be considered during leaching pool installation and recharge basin construction and any materials found to be unsuitable will be removed and replaced with clean coarse textured fill. Wastewater generated on-site will be conveyed to the Bay Park STP for treatment and disposal. No impact to surface water or wetlands is anticipated.

Water Balance and Groundwater Quality

Construction activities will occur over an estimated 3-year period. Groundwater impacts could potentially occur during construction from rain falling on exposed building materials and construction equipment and subsequent leaching into the ground; however, building materials are anticipated to be inert and therefore are not expected to have a potential to impact groundwater

quality. Equipment stored on-site will be properly maintained and will be operated by experienced and reputable contractors over the construction period. No significant or long-term construction impacts to groundwater quality are anticipated. Since the future use of the site is residential and since gas will be used for heating, large quantities of hazardous materials are not anticipated to be stored on-site.

For water use and waste generation analysis purposes, it is anticipated that approximately 14,700 gpd of wastewater will be generated from the proposed residences and clubhouse, with ultimate treatment and disposal at the Bay Park STP. The nearest sewer main is 8 inches in diameter and is installed along the west side of Searingtown Road along the frontage of the subject property. Correspondence with Joseph Davenport, P.E., Chief Sanitary Engineer with the Nassau County Department of Public Works, indicates that the Bay Park STP "…has sufficient treatment capacity for the anticipated flows" to be generated by the project (see Appendix A). The future Homeowners Association will be responsible for maintaining the streets and sanitary sewers within the development, as they will be held in private ownership. No groundwater resource impacts would occur from the discharge of wastewater from the subdivision.

Using the site coverage quantities established in Table 1-1, the SONIR model was run to determine the water budget for future site conditions. Under the proposed development, the project site will recharge a total of 22.95 MGY resulting in an increase of 6.40 MGY in comparison to existing conditions. The results of this analysis are presented in Appendix E-3. Nearly all of the recharge water generated on site will consist of stormwater; however, based upon information presented in the NURP Study (see Section 2.5.1 and 2.5.2), this volume is not anticipated to contain significant concentrations of pollutants. The project will use recommended recharge techniques involving subsurface leaching pools and a surface stormwater recharge basin that are designed in conformance with current engineering practices and conform to state and local standards. The NURP Study found that any organic chemicals that may be present in stormwater generally volatilize on surfaces and inorganic chemicals and bacteriological indicators are removed as recharge infiltrates through soil. As noted, the depth to groundwater ranges from 132 to 202 below proposed grade, providing a substantial unsaturated zone for leaching and attenuation. Therefore, the proposed project is in conformance with the applicable recommendations of the NURP Study and the NYSDEC in regard to the proposed stormwater recharge system. As previously noted, a SWPPP and NYSDEC SPDES General Permit may be required, which will include further examination of drainage, and erosion control measures.

Based on the site quantities presented in **Table 1-1**, the SONIR computer model results for the proposed project (**Appendix E-3**) indicate that the concentration of nitrogen will increase from 0.01 mg/l on the currently vacant/undeveloped and unfertilized site to 1.56 mg/l upon completion of the project. Since the project will be sewered, the primary contribution to the increase in nitrate loading will be from anticipated fertilization of landscaping. For calculation purposes, it is conservatively assumed that 18.90 acres, which will be fertilized at the typical rate of 2.30 pounds of nitrogen per 1,000 SF, and irrigated provided at a rate of 16.0 inches annually. The SONIR model predicts a concentration of nitrogen in recharge of 1.56 mg/l, which is well within the 10 mg/l NYS standard for nitrogen in drinking water.

Proposed Mitigation

- There are no natural surface waters or wetlands on or adjacent to the project site. Erosion and sedimentation controls will help to keep sediment from leaving the site.
- The increase in recharge volume resulting from the additional impermeable surfaces is not expected to cause a significant adverse impact on the water table (e.g., mounding or flooding) due to the significant unsaturated depth underlying the site. As a result, no mitigation is required or proposed.
- Connection to the NC sewer system will preclude the need for wastewater discharge on-site.
- The drainage system for the project will be designed, sited and installed in accordance with state and local requirements and will be subject to review and approval by the Village Engineer. A SWPPP will be prepared and a SPDES General Permit will be sought. As a result, no further mitigation is required or proposed.
- The SONIR computer model results for the proposed project indicate that the concentration of nitrogen in recharge is anticipated to increase from 0.01 mg/l at the currently undeveloped site to 1.56 mg/l which is far below the maximum 10 mg/l standard for drinking water. The discharge of wastewater to the available NC sewerage system rather than through individual on-site septic systems is an integral factor in this project achieving such a low recharge nitrate concentration.
    - As part of previous demolition and site preparation fuel storage tanks have been removed and contaminated sediment associated with on-site stormwater leaching pools have been removed. Additionally, the proposed residential development will use natural gas for heating purposes and no toxic or hazardous materials are anticipated to be stored on-site.

Ecological Resources

Vegetation

The impacts to the ecological resources of a site are generally a direct result of clearing of natural vegetation, increase in human activity and associated wildlife stressors, and the resulting loss and fragmentation of wildlife habitat. The majority of the development area is currently wooded, with the exception of approximately 10.62 acres of landscaped area, 0.48 acres of an existing recharge basin, 0.46 acres of unvegetated area and 2.16 acres of impervious area. It is anticipated that under the proposed development, a total of 1.44 acres of natural vegetation would be retained, which is comprised of the remnant Coastal Oak-Hickory forest and a small portion (0.02 acres) of Successional Southern Hardwood forest.

The change in habitat quantities is listed in **Table 2-8**. As illustrated in **Table 2-8**, the proposed development intends to ultimately provide approximately 4.73% of naturally vegetated area as well as 62.11% of landscaped area and 30.66% or 9.33 acres of impervious surfaces. As a result, the site will continue to provide some natural habitat for wildlife, though the removal of the existing woodland vegetation on the property is expected to result in a change in the characteristics of site habitat. It is noted that the proposed on-site clearing has been minimized

to the maximum extent practicable given that the existing topographic relief and the need for retaining stormwater on site provide a significant constraint to the minimization of land clearing. During individual lot development, existing trees will be retained where practicable, however, for the purposes of this assessment, it is assume that unless otherwise noted, all existing vegetation will be removed from each lot. It is further noted that the loss of habitat on this site is of marginal value due to the previous disturbance associated with the site.

HABITAT QUANTITIES
Existing and Conceptual Conditions

Coverage Type	**Existing Conditions**		**Conceptual Project**		**Change** (ac) **Coverage** (ac)
	Coverage (ac)	**Percent**	**Coverage** (ac)	**Percent**	
Coastal Oak Hickory (Remnant)	11.33	37.23%	1.42	Coastal Oak Hickory (Remnant)	11.33
Successional Southern Hardwood	5.38	17.68%	0.02	Successional Southern Hardwood	5.38
Landscaped (Mowed Lawn with Trees)	10.62	34.90%	18.90	Landscaped (Mowed Lawn with Trees)	10.62
Recharge Basin	0.48	1.58%	0.76	Recharge Basin	0.48
Impervious	2.16	7.10%	9.33	Impervious	2.16
Unvegetated	0.46	1.51%	0	Unvegetated	0.46
TOTAL	**30.43**	**100.00%**	**30.43**	**TOTAL**	**30.43**

The perimeter trees and three tree clusters slated for preservation will be protected during construction through the use of orange construction fence which will be placed on the outer drip line of the area to be preserved. Clearing and construction activities will not occur within the demarcated protection area. Additionally, the preserved trees will be protected from removal by individual lot owners through the use of covenants and restrictions placed on each lot that contains a protected tree, which would prohibit removal of the tree until a recognized and certified arborist determines the tree is unhealthy and poses a danger to the residential development due to its poor health and potential for toppling.

As previously stated, the NY Natural Heritage Program identified only one historical record of a threatened plant in the vicinity of the site, however, as previously indicated, this plant is not expected on site due to the historical nature of the record, nor was it observed during site visits. As such, no impact to rare, threatened or endangered plant species are anticipated as a result of the proposed project.

Wildlife

The majority of habitat on the property is dominated by a remnant Coastal Oak-Hickory forest. The property is not expected to act as a refuge for rare native flora or fauna, but does contain a small population of local birds and mammals, such as red fox 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.

The majority of habitat on the property is dominated by a remnant Coastal Oak-Hickory forest. The property is not expected to act as a refuge for rare native flora or fauna, but does contain a small population of local birds and mammals, such as red fox 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.

Approximately 1.44 acres of natural vegetation are anticipated to remain on the overall property under the proposed plan. Although the proposed 18.90 acres of landscaped vegetation provides less 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.

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 south 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.

As habitat potential for the northern long eared bat exists on the subject site, acoustical surveys were conducted to determine the presence/absence of the species on the site. Two acoustical detectors were set up for two nights (July 8 and July 30, 3015) to gather call data. The call data was then reviewed by software designed to identify bat calls and were also reviewed manually due to the presence of the eastern red bat and the little brown bat. Neither software identification nor manual identification revealed the presence of the northern long eared bat. As a result, this species is not expected to be found on site and impacts as a result of the proposed development is not anticipated to occur for this species.

No rare or endangered wildlife species are expected on the site given the habitats present. The red-headed woodpecker, eastern spadefoot toad, eastern hognose snake, worm snake and eastern box turtle are the only species potentially expected on site which are listed as special concern species. Although there is documented concern about their welfare in New York State, these 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).

Proposed Mitigation

- Native plant species that provide food and shelter to wildlife will be utilized in some of the landscaped areas.
- Three specimen tree clusters will be preserved during development. These tree stands/trees will be protected from removal by individual lot owners through the use of covenants and restrictions placed on each lot that contains a protected tree, which would prohibit removal of the tree until a recognized and certified arborist determines the tree is unhealthy and poses a danger to the residential development due to its poor health and potential for toppling.
- Where practicable, trees will be retained during the development of individual plots.
- Disturbance will be minimized to the maximum extent practicable, including delineating tree-clearing limits at the site prior to construction in order to avoid inadvertent clearing.
- No known invasive plant species will be utilized, including those species specifically those species listed in Nassau County Local Law 22-2009 and 6 NYCRR Part 575.

Land Use, Zoning and Plans

Land Use

The proposed 46-lot single-family residential subdivision fully complies with the land use requirements of the Village Code (i.e., single-family residences) and the necessary services, infrastructure, and utilities to serve the development are available. The North Hills community is expected to benefit from the presence of this new subdivision, as the local population will be provided with an attractive residential project appropriately sited and well served with necessary services and infrastructure. The use is fully appropriate for this location based on surrounding land uses and zoning but has the potential to further enhance the diversity of the local housing stock, which is predominantly composed of more-densely developed multifamily residential neighborhoods. The transition from adjacent multifamily residential and park uses, is appropriate and fully consistent with land planning practice and Village zoning.

Zoning

The proposed project has been designed in accordance with the standards and specifications of Chapters 215, “Zoning,” and 179, “Site Development Regulations,” of the Village of North Hills Code with the exception of those standards indicated in *italics* in the Table below and discussed below in greater detail. As the Village of North Hills does not have a Comprehensive or Master

Planning document, its Official Zoning Map and Zoning Code, along with the Nassau County Comprehensive Plan, are the primary instruments that provide the necessary guidance to control potential adverse land use impacts from development. The dimensional zoning requirements of the Village's R-3 zoning district are provided below.

ZONING AND DEVELOPMENT STANDARDS COMPLIANCE TABLE
(Standard Residential Subdivision in the R-3 Zone)

Parameter	Requirement	Proposed Subdivision
Lot Area	Minimum 20,000 square feet	≥ 20,000
Lot Width	Minimum 115 feet	≥ 115 feet
Road Frontage	Minimum of 50 feet	> 50 feet
Front Yard Setback	Minimum 50 feet, except that the Planning Board may, at the time of approval of a site plan, permit a minimum front yard setback of no less than 45 feet if the average of all front yard setbacks on the site is no less than 50 feet and the maximum front yard setback on the site is no more than 20 feet greater than the minimum front yard setback on the site	*Minimum front yard setback of 45 feet and average of all front yard setbacks on the site is no less than 50 feet. 45 foot setback requested for Lots: 1, 7, 23-28, 35, 37 and 44. Planning Board Waiver requested.*
Front Yard Setback	50 feet or 45 feet pursuant to §215-24 F. (1)	*Proposed 27 feet setback for the clubhouse from internal roadway. Variance requested.*
Side Yard Setback	Total 50 feet; 20 feet minimum where dwelling is 1 or $1^1/_2$-stories; side yard setback shall total at least 60 feet, and the minimum side yard setback shall be 25 feet where the dwelling is 2 or $2^1/_2$-stories	Total of 60 feet, with minimum side yard setback of 25 feet (based on homes with 2 to $2^1/_2$-stories)
Rear Yard Setback	Minimum 50 feet	≥ 50 feet
Setback from County road (Searingtown Road)	150 feet	All single family dwellings in compliance. *Variance requested for accessory structures:* - *92' to gatehouse* - *48' to clubhouse parking area* - *Retaining walls for Lots 23-26 and the clubhouse*
Building Height	Maximum $2^1/_2$ stories or 30 feet in the case of a flat roof or 35 feet for	≤ $2^1/_2$-stories

Parameter	Requirement	Proposed Subdivision
	any other roof	
Minimum Floor Area per Dwelling Unit	1,500 square feet	> 1,500 square feet
Building Coverage	Maximum 20% for 1 and $1^1/_2$-story dwellings and 15% for 2 and $2^1/_2$-story dwellings	≤ 15%
Parking	At least 3 on-site spaces, 2 of which shall be enclosed; 1 space per 200 SF of GFA (15 spaces) for the clubhouse	At least 3 on-site spaces/lot, 2 of which will be enclosed; 15 parking spaces provided for the clubhouse (15 required)
Streets	Maximum 8 percent slope Minimum of 50 feet ROW width Minimum roadway width of 34 feet	*Maximum 9 percent slope for limited are of access drive. Minimum ROW width and roadway width of 30 feet (private road). Planning Board waiver requested.*

As can be seen by analysis of the "**Preliminary Map"** in the **Attachments** at the end of this document and the "**Zoning Compliance**" table above, the individual residential lots comply with the requirements of the Village Code. Requested Planning Board waivers and variances for accessory structures are described below:

- Front Yard Principle Structure Setback: A Planning Board waiver is required for the relaxation of the minimum 50 foot front yard setback by to a minimum of 45 feet and an average of no less than 50 feet with the maximum front yard setback being no more than 20 feet greater than the minimum front yard setback on the site, as permitted by § 215-11 D. (4)). A waiver for 45 foot setback is requested for Lots: 1, 7, 23-28, 35, 37 and 44.

- Maximum Street Gradient: A Planning Board waiver is required for the relaxation of maximum street gradients exceeding an 8% slope to allow a maximum slope of nine percent for an approximately 70 linear foot area along the access roadway (§ 179-40 L. (1)).

- Minimum Right-of-Way (ROW) Width and Street Width: A Planning Board waiver is required for the relaxation of the minimum right-of-way (ROW) width from 50 feet to 30 feet (§ 179-40 H. (1)) and for reduction of street width of 34 feet to 30 feet.

- Setback from Searingtown Road (CR 101): ZBA variances pursuant to § 215-24 F. (1) are required for the relaxation of the 150-foot setback requirement from Searingtown Road for:
    - The gatehouse will be setback approximately 92 feet from the County right-of-way
    - The clubhouse parking area will be setback approximately 48 feet from the County right-of-way.
    - Proposed retaining walls within the 150 foot setback for the emergency access road, Lots 23-26 and the clubhouse due to steep topographic conditions.

- Clubhouse Front Yard Setback: ZBA variance for the relaxation of the front yard setback for the clubhouse from 50 (or 45 pursuant to § 215-11 D. (4)) to 27 feet to the internal roadway.

Proposed Mitigation

- In zoning the subject property Residential R-3, the Village deemed the site suitable for single-family residential development on lots of 20,000 SF or greater. It determined that such development would meet its land use goals and that this particular use, at its proposed density, would be compatible with the envisioned development and land use pattern of the area. Several Planning Board waivers are requested for setbacks and roadway width/ROW width and gradient. ZBA variances are requested for several setbacks, including the gatehouse, the clubhouse/clubhouse parking area and retaining walls. To mitigate the proposed setback reductions, the subdivision design includes the retention of natural buffers and the planting of street trees and extensive perimeter landscaping (including a proposed evergreen screen around the disturbed perimeter of the property, see **Landscape and Street Lighting Plan, Attachment 1**).

Community Character

Visual Character

The proposed project will alter the visual character on and around the subject property by changing the use of the site from institutional to residential and increasing the overall density of development on the site. It is the Applicant's goal to develop a premier luxury residential community on the property. To achieve this goal, the Applicant retained a world renowned architectural firm, Gensler, to assist with the lot layout and to create the architectural design concepts for the future single family residential homes. The Applicant has worked with the project architect to prepare design guidelines that outline the proposed subdivision design intent (see **Appendix B-1**). These guidelines set forth a high standard of quality and provide visual controls for the proposed homes.

The existing character adjacent to the subject parcel is mixed, but includes numerous two-story semi-attached multifamily residences (typically containing four units per building); a County park with various recreational facilities including a large masonry building, golf course, swimming pools, playing fields and courts, a large surface parking lot, reflecting pool, and 30 acres of open space; and Searingtown Road/CR 101. Both of the adjacent multifamily residential communities have access off of Searingtown Road, gatehouses at their entrances, and 30-foot wide private streets with Belgium block curbing. The proposed project will result in some change in the visual appearance of subject site from the perspective of adjacent property owners and passersby on Searingtown Road and adjacent private streets. The proposed residences will be setback a minimum of 50 feet from adjacent land to the north, south and west; while the closest building to Searingtown Road (with the exception of the gatehouse which will be setback a total distance of 92 feet from the road) will be set back a minimum of 150 feet. All homes will comply with R-3 district's 35-foot building height standard and contain no more than $2^1/_2$ stories. Accessory structures, including potential pool and pool house locations, and

detached garages in a limited location for Lots 24 and 25, have been included on the Preliminary Plans and are placed within the permitted setbacks of the R-3 District. Such accessory structures are typical of residential single family development, and will be subject to individual plot plan review by the Architectural Review Board pursuant to Chapter 12 of the Village Code. The new residential use is consistent with site zoning, the Nassau County Comprehensive Plan, the R-3 District's permissible subdivision density standards, and is compatible and suitably transitional to existing adjacent land uses.

Removal of the existing trees will open views to the site from some off-site vantage points, especially during the fall and winter months when deciduous trees shed their leaves. Existing natural vegetation will be retained along the perimeter of the property to the extent possible; particularly, on the southeastern side of the property, along Searingtown Road, where the buffer is as deep as 100 feet. The existing 25-foot deep, approximately 740-foot long, scenic easement located along the north side of the property will maintain the easement's existing vegetative screening. The proposed subdivision includes an extensive landscape plan to provide privacy and buffer the proposed development (see **Attachment 1, Landscape and Street Lighting Plan)**. As part of the subdivision improvements, the Applicant proposes the installation of evergreen screen comprised of a staggered double row of evergreen trees along the perimeter of the property were natural vegetation will be removed (see **Landscape and Street Lighting Plan, Attachment 1**). This evergreen buffer proposes species planted 10 to 12 feet in height to provide immediate screening of the proposed residences from adjacent properties. This proposed evergreen buffer planting will provide additional cover and screening each year as they mature. Street trees will be planted along both sides of each of the proposed streets, and will be spaced, on average, 40 feet on center. Numerous trees and shrubs, including both evergreen and deciduous species, will be provided along the shoulders of the emergency access lane, and along the main access road, within the main access road's median, and around the proposed stormwater recharge basin. Decorative street lighting will line one side of each of the streets and, like the street trees, will also be spaced at 40-foot intervals. The three clusters of large specimen European beech trees that exist within the interior of the property will also be preserved to provide visual interest and an additional layer of spot screening.

<u>Lighting</u>
Section 151 of the Village Code provides outdoor lighting regulations which include two provisions (§151-2 of the Village Code):

A. The upper beam or ray shall not project beyond the property line of the premises of the owner or occupant.
B. No light shall be directed upon any surface which shall reflect the beam or ray thereof beyond the property line of the premises of the owner or occupant.

The only lighting currently proposed by this residential subdivision is street lighting. Proposed street lights and street light locations are illustrated on the **Street Lighting and Tree Plan**. The decorative lantern style street fixtures will be mounted on 15-foot poles. Based on the size of the property, locations of the streets and street lights, the height of street light fixtures, the planting of street trees, the retention of trees and vegetated buffers, and future landscaping of individual lots, impacts to adjacent properties from excessive illumination from street lights, are not

anticipated. Outdoor lighting for future homes is expected to include typical porch and rear yard patio lighting. The proposed street lighting fixtures are equipped with solid/opaque hoods to prevent light from being cast upwards and causing sky glow. As required by § 151-2, of Village Code, there will be no projection of lighting off site from the common lighting on the project site.

Proposed Mitigation

No further mitigation is suggested as:

- The change in the visual character of the site, from a wooded property to that of a developed residential site, will be mitigated by retention of buffers along the southeast corner of the property, an existing scenic easement on the north side of the site, retention of three specimen European beech tree clusters, installation of an evergreen screening trees along the disturbed perimeter, as well as the planting of street trees. As part of the subdivision improvements, an extensive planting plan is proposed, including an evergreen screen comprised of a staggered double row of evergreen trees will be planted (10-12 feet in height) along the perimeter of the property were natural vegetation will be removed (see **Landscape and Street Lighting Plan, Attachment 1**). This landscaping will provide perimeter buffers, as well as screen the proposed clubhouse parking area, emergency access road and retaining walls proposed within the 150 foot setback from Searingtown Road.
- Design Guidelines that outline the proposed subdivision design intent and set forth a high standard of quality are proposed (see **Appendix B-1**), which will provide visual controls for the proposed homes. These Guidelines will enable the creation of a distinguished and high quality building design; intended to be visually attractive and consistent with the character of a luxury residential development.
- The proposed street lighting fixtures are equipped with solid/opaque hoods to prevent light from being cast upwards and causing sky glow. As required by § 151-2, of Village Code, there will be no projection of lighting off site from the common lighting on the project site.

Community Services

Socio-Economics

Many of the Village and County's community services and facilities are supported in large part by the revenues generated through property taxes. The Village of North Hills and Nassau County, as well as other local taxing jurisdictions will greatly benefit from an increase in such property tax revenues, resulting from the proposed project. At the time of full build-out and occupancy, the proposed project is projected to generate over $3.0 million in annual taxes. This represents a net increase of over $2.48 million per year when compared to existing site conditions.

TAX GENERATION AND DISTRIBUTION
Existing Conditions vs. Proposed Project

Jurisdiction	**Tax Rate** ($ per $100 Assessed)	**Existing Tax Revenue** ($/year)	**Projected Tax Revenue**	**Change in Tax Revenue**
Total: School Tax	**484.763**	**$353,877**	**$2,006,919**	**$1,653,042**
Manhasset School District	456.860	$333,508	$1,891,400	$1,557,893
Library District	27.903	$20,369	$115,518	$95,149
Total: County Tax	**195.630**	**$142,810**	**$809,908**	**$667,098**
County General Fund	18.699	$13,650	$77,414	$63,764
County Environmental Bond	1.851	$1,351	$7,663	$6,312
Fire Prevention	3.036	$2,216	$12,569	$10,353
Nassau Community College	9.820	$7,169	$40,655	$33,486
County Police Headquarters	65.989	$48,172	$273,194	$225,022
Storm Water Resources Zone of Assessment	3.202	$2,337	$13,256	$10,919
Sewer Collection and Disposal Zone of Assessment	20.804	$15,187	$86,129	$70,942
County Police	72.229	$52,727	$299,028	$246,301
Total: Town Tax	**18.179**	**$13,271**	**$75,261**	**$61,990**
Town General Fund	18.179	$13,271	$75,261	$61,990
Total: Special District Tax	**31.160**	**$22,747**	**$129,002**	**$106,256**
Manhasset-Lakeville Water District	8.756	$6,392	$36,250	$29,858
Manhasset-Lakeville Fire District	18.453	$13,471	$76,395	$62,925
Manhasset Park District	3.951	$2,884	$16,357	$13,473
Total: Village Tax	**0.1194**	**$17**	**$494**	$477
Village of North Hills	0.1194*	$17	$494	$477
TOTAL: ALL TAXING JURISDICTIONS	**729.757**	**$532,721**	**$3,021,585**	**$2,488,863**
* It is important to note that the Village tax rate of 0.1194/$100 assessed valuation represents the residential tax rate, which is assumed for the projected residential development for the purpose of this analysis.				

Public Schools

According to residential demographic multipliers published by the Center for Urban Policy Research at Rutgers University (Burchell et al, 2006), a five-bedroom, owner-occupied single family residence valued at greater than $748,500 will generate approximately 1.47 school age children per home. Based on this multiplier, it is estimated that the proposed project will generate approximately 68 school-aged children. According to the U.S. Census Bureau, approximately 11.8% of all students residing within the boundaries of the Manhasset UFSD attend private schools. For the purpose of this analysis, and in an effort to illustrate a conservative projection, it is assumed that this factor will remain constant, and as such it is projected that eight (8) of the 68 school-aged children will attend private schools in the area. The remaining 60 school-aged children will likely attend public schools located within the Manhasset School District. It is noted that the projected 60 additional school age children would

be spread over all grade levels, and would occur over time, as the homes are constructed and sold based on market conditions.

According to electronic correspondence from the Manhasset School District (**Appendix A**), the latest available independent report on per pupil expenditures is the *Forty-Seventh Annual Study of School Costs Based on 2012-13 School Costs* prepared by Nassau BOCES. This report indicates that Manhasset's 2012-13 per pupil costs based on actual gross expenditures is $27,007. Therefore, the projected 60 additional students will result in $1.62 million in expenditures per academic year. The estimated tax revenues generated by the proposed project are $1.89 million based on the current tax rates and property assessment described. This results in a net increase in revenue of approximately $270,980 per year.

Police Protection

The subject property is within the 3rd Precinct North, which serves thousands of homes within the communities of East Hills, Flower Hill Great Neck Plaza, Harbor Hills, Manorhaven, Munsey Park, North Hills, Plandome, Plandome Manor, Plandome Heights, Roslyn, Roslyn Estates, Roslyn Harbor, Russell Gardens, Saddle Rock, Sea Cliff, Thomaston, Glen Head, Glenwood Landing, Great Neck, Greenvale, Manhasset, Roslyn Heights and University Gardens. The proposed construction of 46 single family homes on the subject property, which will be provided with an on-site security service and a gatehouse with an attendant is not anticipated to significantly impact the police protection services.

Based on the 2014 tax rates, it is estimated that the proposed project would generate approximately $299,028 per year in taxes allocated to the County Police Department. Moreover, approximately $273,194 would be levied to the Nassau County Police Headquarters.

Fire Protection

The Fire District currently serves a residential population of approximately 44,000. The district provides fire protection and ambulance services within the district. The proposed 46 homes and associated population of approximately 196 people represent less than 0.5 percent increase of the existing population served by the District. The homes will be new construction, conforming to the requirements of the NYS Fire and Building Codes. Fire/smoke detectors will be installed as new homes to render early warning of any fire incidents until professional assistance arrives. Adherence to the NYS Fire and Building Codes will increase the level of safety from fires and minimize the potential for use of ambulance services. The main site and emergency accesses and proposed streets will be designed to accommodate emergency response vehicles. Homes will be no taller than 2.5 stories and 35 feet in height, and will be served by public water and fire hydrants.

The MLFD is a volunteer organization which is funded by property taxes, donations, and other community fundraising efforts. Based on the 2014 tax rates, it is estimated that the proposed project would generate approximately $76,395 per year in taxes allocated to the MLFD.

The proposed project will result in a greater number of residents living within close proximity to Christopher Morley County Park. The park is a large public facility providing a variety of passive and active recreational opportunities to County residents. Any increase in visitation to the park from the proposed subdivision is likely to be insignificant in light of the limited number of new residents anticipated which is but a fraction of the County and park district populations. Moreover, any such demand would likely be at least partially offset by the 3,000 SF clubhouse that is planned for the subdivision property and made available for the exclusive use and enjoyment of its residents and their guests. The developed subdivision will generate an estimated $16,357 annually for the Manhasset Park District which is $13,473 more than what is currently generated.

Solid Waste Handling

The proposed residential use is expected to generate approximately 858 lbs/day (or 12.87 tons/month) of solid waste based on a multiplier of 4.4 lbs per capita (USEPA, 2011) and the estimated total subdivision population of 195 (Burchell *et al* (2006) (see **Table 1-1**). Solid waste will be removed by a private carter in accordance with the requirements of Chapter 183 of the Village Code and disposed of at the Town of North Hempstead's Transfer Station. According to the Town's 2013 Solid Waste Management Authority Report, the overall throughput of waste to the transfer station slightly decreased from 223,000 tons to 218,000 tons of waste processed through the facility from the previous two years. The facility operates as a 225,000 ton per year transfer station. The proposed annual solid waste generation from the proposed subdivision represents 0.0069 percent of the total waste volume of the Town facility.

It is not anticipated that any toxic or hazardous waste will be generated, stored or used on the site other than small quantities of household cleaners. The type and volume of solid wastes generated by the project are not expected to have a significant impact on the operation of the Town facility. As a result, impacts from solid waste generated by the proposed project or to solid waste handling facilities are not anticipated.

Water Supply

The volume of potable water required by the proposed project is assumed to be the same as the capacity of the wastewater system for the project, which is based on NCDH design flow requirements. As calculated in **Table 1-1**, the project is expected to generate approximately 34,500 gpd of wastewater from the proposed 46 single-family residential units (based on NCDH design flow criteria of 750 gpd for homes having five-bedrooms) which is considered a conservative estimate of the anticipated domestic water consumption of the project. In addition, an estimated 900 gpd is expected to be needed to serve the proposed clubhouse based on 0.3 gpd/sf of clubhouse space for a 3,000 SF GFA building. An additional 21,298 gpd is estimated to be necessary for irrigation purposes based on a projected irrigation rate of 16.0 inches/year for the 17.91 acres of lawn and landscaped area that might be expected. Adding this volume to the projected domestic water use of 35,400 gpd indicates a total projected water demand of 56,698 gpd.

The proposed homes will be equipped with modern plumbing fixtures and mechanical systems that meet current day building standards. These systems are expected to have superior quality and efficiency when compared to the systems installed in older residences.

NP&V sent a letter to the MLWD dated September 12, 2014 to request additional information (**Appendix A)**. The MLWD Board of Commissioners responded to this request by letter dated October 7, 2014 which contained a map of the district's "Zone System;" the location of existing water mains in the area; monthly pumpage data for 2012, 2013, and January through August 2014, as well as the five-year monthly average; and applicable sections of the 2013 MLWD Water Quality Report. The letter and attached report also contains the following comments or information:

- [W]ater is available for the project subject to the owner signing a developer's agreement to expand the District's infrastructure as required to provide the requested water service.
- The public supply wells in the vicinity of the project all have trace VOC contamination. The water from these wells is treated by aeration or carbon filtration prior to entering the distribution system.
- The elevation of this area requires a dedicated pumping system for service.
- The "Zone System" may need to be expanded to serve the proposed subdivision.
- The District is [in] compliance with the NYSDEC pumpage cap.

Wastewater Treatment

As indicated above, the project is expected to generate a total of 14,700 gpd of wastewater. The Nassau County Department of Public Works (NCDPW) has indicated by letter dated October 6, 2014 and on sewer maps that were attached (**Appendix A**) that an 8-inch County sewer main is available on the west side of Searingtown Road along the property's road frontage. This letter further indicates that the existing sanitary sewer collection system has sufficient capacity for the discharge of approximately 14,700 gallons per day for the subdivision and that the Bay Park Sewage Treatment Plant has sufficient treatment capacity for the anticipated flows. The future property owners association will be responsible for maintaining the sanitary sewers within the development as they will be held in private ownership.

Energy

The proposed project will increase the electrical and natural gas consumption in the area, requiring extensions of the electrical and natural gas distribution networks on to and throughout the 30.43-acre property to service the 46 new homes. A letter was sent to PSEG to request the availability of service to the subdivision and a response was received September 22, 2014 from Carolyn Mackin, Manager of the Customer Order Fulfillment Department, stating that:

> "…please be advised that PSEG will provide service to the above referenced project in accordance with our filed tariff and schedules in effect at the time service is required." (**Appendix A**)

Proposed Mitigation

- The proposed project will result in a significant increase in the amount of property taxes generated on the site. As a result, tax revenues generated from the project will offset at least a portion of the increased costs for community services to serve the project.

- The proposed project will be provided with an on-site security staff along with an automated security gate at the main access. An additional access/egress will also be provided south of the main access for use in emergency situations only. This emergency access/egress will be equipped with a crash gate to prevent unauthorized use but to ensure access and egress in the event of a major emergency. The site and each home will be fully accessible by emergency services including both the main and emergency accesses and all streets.

- Adherence to the NYS Fire and Building Codes will increase the level of safety from fires and minimize the potential for use of ambulance services. In addition, use of fire/smoke alarms will assist in minimizing the incremental increase in the potential need for fire protective services and fire hydrants will be installed as required to ensure the availability of water for firefighting purposes.

- The Manhasset Crest Design Guidelines (**Appendix B-1**) include sustainability requirements which will provide for energy efficiency and water use savings. These include compliance with the following:
    - All homes will achieve WaterSense label (an U.S. Environmental Protection Agency, "EPA" Partnership Program[2]), which are designed to reduce residential water use indoors and out by approximately 20 percent, allowing homeowners to use less water and energy. Design considerations include demand-controlled recirculating hot water systems and WaterSense labeled fixtures for kitchens and bathrooms.
    - All homes will meet Energy Star homes design standards, which provide energy efficiency savings of up to 30%, including excellent air sealing, appropriately-sized mechanical equipment, and proper ventilation in bathrooms and kitchens.
    - All homes will meet EPA Indoor airPLUS labeling in conjunction with the Energy Star label. This label requires installation of features that do not introduce pollutants to the air in and around the home during construction and occupancy

Transportation

A summary of traffic impacts from the project as provided in the TIS is provided below. This TIS was based on a previous version of the plan which proposed 47 house lots, and therefore, provides a conservative estimate of potential impacts.

Site Access

As depicted on the site plan, access to the site will be provided via one unsignalized full movement driveway on Searingtown Road.

Trip Generation

In order to identify the impacts the proposed residential development will have on the adjacent street system, it is necessary to estimate the magnitude of traffic volume generated during the peak hours and to estimate the directional distribution of the site traffic when entering and exiting the subject property. The trip generation estimates for the proposed residential development were prepared utilizing data found under Land Use Code 210-Single Family Detached Housing within the Institute of Transportation Engineers' publication, *Trip Generation, Eighth Edition*. This publication sets forth trip generation data obtained by traffic counts conducted at sites throughout the country. The

[2] http://www3.epa.gov/watersense/

following Table summarizes the trip generation estimates for the proposed residential development. Appendix C of the TIS provided in **Appendix E** of this DEIS contains the trip generation worksheets.

TABLE 3-10
TRIP GENERATION
Proposed Project

Time Period	Distribution	Single Family Homes 47 Units
Weekday AM Peak Hour	Enter	9
	Exit	26
	Total	**35**
Weekday PM Peak Hour	Enter	**30**
	Exit	**17**
	Total	**47**
Saturday Midday Peak Hour	Enter	24
	Exit	20
	Total	**44**

Source: Trip Generation, 8th Edition, published by ITE

As can be seen from **Table 3-10** above, the proposed residential development is projected to generate 35 trips (9 entering and 26 exiting) during the weekday AM peak hour, 47 trips (30 entering and 17 exiting) during the weekday PM peak hour and 44 trips (24 entering and 20 exiting) during the Saturday midday peak hour.

Traffic Impact Analysis

The intersection capacity and level-of-service (LOS) analyses were based on the procedures and guidelines presented in the *Highway Capacity Manual (2010)*, published by the *Transportation Research Board*. The Synchro Version 8 software was used to analyze the study intersections and provide a LOS measurement of the intersection operations. The six classes of LOS, ranging from LOS A (excellent) to F (worst), are defined in Appendix E of the TIS provided in **Appendix H** of this DEIS. **Tables 3-11** through **3-16** illustrate the LOS summaries for the study intersections. Summaries of anticipated LOS impacts are provided below.

Searingtown Road and LIE South Service Road
In the No Build Condition, the signalized intersection of Searingtown Road and LIE South Service Road is projected to operate at LOS D during the AM peak period, LOS F during the PM peak period and LOS D during the Saturday midday peak period. With the construction of the proposed project, the intersection will continue to operate at No Build conditions during the analyzed peak periods with minimal increase in delay. Although this intersection operates at LOS F during the PM peak period, it can be seen that the overall delay is only projected to increase by 0.5 seconds. During the PM peak period the eastbound left-turn movement experiences a change in LOS, from C to D. However, the increase in delay is minimal at only 1.2 seconds. During the Saturday peak period the southbound left-turn movement experiences a change in LOS from E to F. However the increase in delay is minimal at only 2.1 seconds. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Searingtown Road and LIE North Service Road

In the No Build Condition, the signalized intersection of Searingtown Road and LIE North Service Road is projected to operate at LOS D during the AM and PM peak periods and at LOS C during the Saturday midday peak period. With the construction of the proposed project, the intersection will continue to operate at No Build conditions during the PM and Saturday peak periods with minimal increase in delay. During the AM peak period the overall LOS of the intersection changes from D to E. However, the increase in delay is minimal at only 0.5 seconds. There is no change in LOS to individual movements. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Searingtown Road and Estates Terrace South/Christopher Morley County Park
In the No Build Condition, the signalized intersection of Searingtown Road and Estates Terrace North/Christopher Morley County Park is projected to operate at LOS A during the AM and Saturday peak periods and at LOS B during the PM peak period. With the construction of the proposed project, the intersection will continue to operate at No Build conditions during the analyzed peak periods with minimal increase in delay. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Searingtown Road and Estates Terrace North/Dianas Trail
In the No Build Condition, the signalized intersection of Searingtown Road and Estates Terrace North/Dianas Trail is projected to operate at LOS A during the AM, PM and Saturday midday peak periods. With the construction of the proposed project, the intersection will continue to operate at No Build conditions during the analyzed peak periods with minimal increase in delay. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Searingtown Road and Site Access
During the Build Condition, the eastbound left-turn movement is projected to operate at LOS D during the AM, PM and Saturday midday peak periods. The eastbound right-turn movement is projected to operate at LOS B during the AM, PM and Saturday midday peak periods. The northbound left-turn movement is projected to operate at LOS B during the AM and Saturday midday peak periods and at LOS C during the PM peak period.

The TIS concludes: Based on the results of the TIS as detailed in the body of this report, it is the professional opinion of Nelson & Pope that, constructing the proposed residential development will not result in significant traffic impacts in the study area.

Cultural Resources

Impacts to cultural resources are not anticipated due to the absence of significant historic or archeological resources in the area as determined through a NYS OPRHP records review by NP&V, including the cultural resources/archeology map for this DEIS (**Figure 3-3**). As no impacts to cultural resources are anticipated, no further investigation is necessary.

Alternatives

SEQRA requires the investigation of reasonable alternatives to a proposed project in order to determine the merits of the project as compared to other possible uses on the subject site, in consideration of the goals and capabilities of the applicant as well as realistic circumstances of the situation. The discussion and analysis of each alternative should be conducted at a level of

detail sufficient to allow for the comparison of various impact categories by the decision-making agencies. The following lists the alternatives analyzed in this document:

Alternative 1: Assumes that the site remains in its current use and condition.

Alternative 2: Assumes the site is subdivided into 46 single-family residential lots in accordance with the subdivision Yield Map (see **Yield Map, Attachment 2)**.

SECTION 1.0

DESCRIPTION OF THE PROJECT

1.0 DESCRIPTION OF THE PROJECT

1.1 Introduction

This document is a Voluntary Draft Environmental Impact Statement (DEIS) for a proposed 46-lot subdivision of 30.43 acre parcel located at 251 Searingtown Road in the Village of North Hills. This document has been prepared in conformance with the New York State Environmental Quality Review Act (SEQRA), as administrated by the Incorporated Village of North Hills Planning Board (hereafter, *"the Board"*). The proposed subdivision, known as *"Manhasset Crest"* is located on the west side of Searingtown Road, across from Christopher Morley County Park, and between North Hills Estates Sections 1 and 2 in the Incorporated Village of North Hills, Town of North Hempstead, County of Nassau, New York. The Nassau County tax lot designation is Section 3, Block 162, Lot 822. **Figure 1-1** shows the location of the project site (*All figures are provided in a separate section at the end of the text portion of this document*). The subject property is located within a moderate density residential community containing multifamily and single-family residences and west of a large active and passive County parkland (i.e., "*Christopher Morley County Park*"). **Figure 1-2** is an aerial photograph showing relatively recent (2013) conditions at the project site and the buildings, structures, streets, parking lots and the general development pattern of the surrounding area. The applicant for this project is Manhasset Bay Group, Inc. (hereafter, "*the Applicant*").

The project site is zoned "R-3 Residence". The minimum lot area requirement in this zone is 20,000 square feet ("SF") (0.46-acre), lot widths must be no less than 115 feet at the front yard setback line, and the minimum lot frontage is 50 feet. The proposed Preliminary Subdivision Plans, prepared by Nelson & Pope Engineers and Surveyors (see **Attachment 1, Preliminary Map**) depicts a total of 46 residential lots that comply with the above standards, as set forth by Chapter 215, "Zoning", of the Village Code. The Applicant retained a world renowned architectural firm, Gensler, to assist with the lot layout and preliminary architectural concepts for the future single family residential homes. It is the intention of the Applicant to build a premiere luxury residential neighborhood. To achieve this goal, the Applicant retained a world renowned architectural firm, Gensler, to assist with the lot layout and to create the architectural design concepts for the future single family residential homes. The Applicant has worked with the project architect to prepare design guidelines that outline the proposed subdivision design intent (see **Appendix B-1**). These guidelines set forth a high standard of quality and provide visual controls for the proposed homes. As demonstrated by the design guidelines, particular attention will be given to the architectural design, building materials and landscaping, interior and exterior layout of the site and homes, and common area maintenance.

The proposed lots will range from the minimum required 20,000 SF (0.46-acre) to 39,256 SF (0.90-acre). The proposed homes will fully comply with Village height requirements (maximum 35 feet) and building footprints have been analyzed at 15 percent of the lot area within the applicable building envelopes (which could range from approximately 1,300 SF to 5,500 SF). Accessory structures, including potential pool and pool house locations, and detached garages in a limited location for Lots 24 and 25, have been included on the Preliminary Plans (see **Attachment 1, Preliminary Map**) and are placed within the permitted setbacks of the R-3

District. Such accessory structures are typical of residential single family development, and will be subject to individual plot plan review by the Architectural Review Board pursuant to Chapter 12 of the Village Code. The proposed subdivision also includes a 0.65 acre open space parcel with a 1,500 SF (footprint) clubhouse and associated parking area. The community will be gated, and a gate house is proposed along the site entrance drive from Searingtown Road.

Access to the subdivision will be provided from Searingtown Road at its current location, near the north end of the property. The subdivision will be served by a network of internal streets that will be privately owned and maintained by the property owners association. An emergency only access/egress will also be provided to/from Searingtown Road, south of the main access. The emergency access will be closed off by a crash gate and will only be opened in the event of an emergency. All wastewater generated on the project site will be conveyed off-site via a Nassau County sewerage system for treatment and disposal at the Bay Park Sewage Treatment Plant (STP). The Manhasset – Lakeville Water District (MLWD) provides water service in the area and will be the source of potable drinking water for future homeowners. **Section 1.4** provides a detailed description of the proposed project.

The subject property is the former site of the St. Ignatius Jesuit Retreat Center. The three-story, 87-room, 20,194 SF building that formerly occupied the site has been removed; however, several accessory structures and site infrastructure remain, including: a reflecting pool, stone maze/labyrinth, a small dilapidated shed, another small single-story building that is open on one side and located in the northern portion of the property, an asphalt driveway, three small parking lots, and a sanitary system. These structures will be removed and the sanitary system, properly abandoned under the auspices of the Nassau County Health Department (NCHD), prior to site development.

This Voluntary DEIS has been prepared in accordance with the NYS Environmental Quality Review Act (SEQRA) and its implementing regulations under Part 617, Title 6 of the New York Code of Rules and Regulations (6 NYCRR Part 617). The Applicant has opted to prepare this DEIS voluntarily at the outset of the SEQRA review process in order to provide the Village Planning Board, as lead agency, with a thorough evaluation of the Proposed Action and its potential impacts at the earliest possible stage (hence, a Voluntary DEIS). In accordance with Section 617.6 (a)(4) of SEQRA, the Planning Board may waive the requirement of an Environmental Assessment Form (EAF) Part I, if an application is accompanied by a DEIS. The voluntary DEIS describes the methods and techniques proposed by the Applicant to eliminate or mitigate potential environmental impacts, and provides the bases for issuance of a "Determination of Significance" as required by 6 NYCRR Part 617, SEQRA.

1.2 Project Background, Need, Objectives and Benefits

1.2.1 Project Background

The project team and Village Planning Board met for a pre-application conference on March 11, 2014 pursuant to Village Code Chapter 179, "Site Development Regulations," "Article II: Pre-

application Conference." The purpose of this meeting was to discuss proposed plans for subdividing the subject property and to open up a dialogue between the Applicant and Village Planning Board regarding project sponsor and Village goals, the application review process, applicable rules and regulations, and to request and receive initial feedback from the Planning Board as to possible issues and concerns it may have and any guidance or input it would like to provide. The Planning Board provided the Applicant with its input and guidance and the process proceeded to the next phase.

The pre-application stage of review was followed by the Sketch Plat Application phase as described by Chapter 179, "Site Development Regulations," "Article III: Sketch Plat Application" of the Village Code. During this phase of review, the Applicant submitted an application and sketch plat depicting a preliminary layout, drainage, roadways, and other pertinent features for the Planning Board's review and consideration. Additionally, a Yield Map of the property was submitted, fully compliant with the Village R-3 dimensional standards, full 50-foot wide roadway right of way and secondary emergency access (see **Attachment 2, Yield Map**). The Planning Board reviewed the application, sketch plan and yield map, and determined at its August 13, 2014 meeting that the sketch and other materials were adequate to proceed to the Preliminary Application stage. As part of the Planning Board's review of the sketch plat, the Board requested that an emergency access be provided, and noted the presence of three significant trees/tree masses that warranted protection on the property. These three areas include a large Weeping European Beech and two clusters of European Purple Beech, which are proposed to be retained (totaling 0.54 acres), including a perimeter buffer around the drip lines of each of the tree clusters (see **Existing Conditions – Demolition Plan, Attachment 2**).

Subsequent to comment letters received from the Village in March and April 2015, the Applicant's design team prepared an alternate Sketch Plat Application for review by the Village Planning Board. In an effort to address several key issues contained in these comment letters, the Applicant investigated several plan modifications, and prepared an alternate Sketch Plat submission to the Planning Board on May 29, 2015. The Alternate Plan retains a similar layout as previously proposed; however, the plan provides for reductions in paved areas, reduction in the soil cut volumes removed from the site, and retains additional trees on the property. The Planning Board reviewed the alternate Sketch Plat, and determined at its August 12, 2015 meeting that the sketch plat was adequate to proceed to the Preliminary Application stage.

The current stage of review is the Preliminary Subdivision Application stage and environmental review. An application was submitted along with a full set of preliminary subdivision plans (i.e., preliminary subdivision plat and grading, drainage, erosion control, site details, and street tree and street lighting plans), as well as preliminary architectural designs, a traffic impact study, and this Voluntary DEIS. During this stage, a public hearing will be held and the public, community groups, Planning Board and other involved and interested agencies and organizations will provide commentary on the plans and VDEIS.

This Voluntary DEIS is submitted in lieu of an Environmental Assessment Form (EAF) Part I as permitted by § 617.6 (a)(4) of SEQRA. It has been prepared pursuant to and in conformance with the content requirements of SEQRA and contains the essential information to inform the

public about the project and for the Lead Agency and other involved agencies to base their final decisions.

1.2.2 Public Need and Municipality Objectives

The public need for the project is related to the benefits to be derived if the project is implemented. The Applicant has designed the proposed project to achieve the highest and best use of the property based on its residential zoning, adjacent land uses and residential market trends. The project sponsor believes there is a demand for a well-designed single-family residential subdivision at this location that will offer an attractive alternative to individuals seeking high quality luxury housing within a private gated community that is, in part, maintained and overseen by a property owners association. The project will increase housing opportunities in the Village by diversifying the housing stock in the area, which includes adjacent multifamily residential developments to the north, south, and in a small area to the west of the property. The subject property has convenient access to a network of major roadways including Searingtown Road (CR 101), Northern Boulevard (SR 25A), the Long Island Expressway or LIE (I-495) and the Northern State Parkway.

The property contains adequate resources, environmental quality and public facilities (including local and regional transportation network, water supply, waste disposal facilities, parks, utilities, and fire and police protection) to permit, serve, and support the proposed development. The subdivision complies with the standards, spirit, and intent of the Village's R-3 Residential zoning district. Conformance to Village zoning standards is not only necessary to ensure a well-planned compatible residential development but demonstrates consistency with the comprehensive long-range land management goals and overall community vision for the site and area, as embodied in the policies of the Village Code.

The project is also consistent with Nassau County's land use recommendation for the property indicated on the County Master Plan's future land use map. The Plan specifically identifies the project site as one that should be developed for "Suburban Density Residential" development at 2 to 10 dwelling units per acre; although it provides no further specific recommendations for the property. The proposed subdivision would be developed with lots, on average, of approximately 0.5-acres (2 lots per acre) after setting aside land for streets and stormwater recharge areas, and therefore, would fall on the low density end of the County's recommended density range. Providing development at this lower density not only complies with County and Village land development goals, but along with future connection to Nassau County sewers, provision of adequate drainage controls, and other environmental safeguards will help in protecting the underlying resources of the North Hills Special Groundwater Protection Area (SGPA) to the maximum extent practicable.

The proposed project will provide a permanent high-quality use on a property. The development will replace an institutional land use that was no longer economically viable and had to be discontinued at the site, and replaces it with a residential development that is in high demand and complies with the zoning of the property and long-range planning policies. The proposed Project will provide an opportunity for viable residential growth within an area of the Village that is

well-suited to accommodating growth and makes use of a large vacant and underutilized property for a permanent much needed use. At the same time the single-family residential character of this subdivision will provide greater variety and choice in the Village's housing stock when compared to the large multifamily residential developments to the north, south and west of the site, and offer a use that is suitably transitional and compatible with adjacent development.

1.2.3 Objectives of the Project Sponsor

The objectives of the project sponsor include the desire to produce a profitable economic return on a substantial financial investment, which would result from a residential community that addresses a need the Applicant believes is unmet in the area. The project would establish a well-planned residential community that is complementary to surrounding land uses, consistent with Village and County land management goals, provide fiscal and secondary economic benefits, and is compatible with the surrounding community. The Applicant is seeking to provide a use that will conform to the site's zoning and be compatible with and, while at the same time, mitigating environmental impacts to the maximum extent possible.

1.2.4 Benefits of the Project

The benefits of the proposed project are based on social, economic and land use considerations include new housing opportunities, substantial fiscal benefits, and placement of this vacant and underutilized property into a more viable permanent productive taxable land use. The project will provide an opportunity for high quality residential housing in a desirable area of the Village of North Hills. The community will benefit economically from the increased value of the property. The development will be self-contained and will be responsible for maintenance of its own private streets, thereby absorbing the costs associated with their maintenance and upkeep. The proposed project will also result in the generation of a substantial number of jobs during the construction phase of the project, with subsequent secondary spin-off or "ripple" effects that will increase the demand for goods and services within the local area, during and following construction (i.e. clearing, landscaping, maintenance, plowing) and consumer spending (food, furnishings, apparel, personal services, entertainment, etc.). The project will also provide a permanent land use for the site that is viable and consistent with local zoning.

1.3 Location

The 30.43-acre property is located on the west side of Searingtown Road, across from Christopher Morley County Park, and between North Hills Estates Sections 1 and 2 in the Incorporated Village of North Hills, County of Nassau, New York. The physical address of the property is 251 Searingtown Road and its Nassau County tax lot designation is: Section 3, Block 162, Lot 822 (see **Figures 1-1** and **1-2**).

The subject site is within the following service and planning districts:

- Manhasset Union Free School District
- Manhasset-Lakeville Fire District
- Manhasset-Lakeville Water District
- Nassau County Police Department (NCPD), 3rd precinct
- Nassau County Sewer Disposal District No. 2 (Albertson – Williston)
- Nassau County Sewer Collection District No. 2 (Albertson – Williston)
- PSEG Long Island (electricity)
- National Grid (natural gas)
- R-3 (Residential) Zone
- North Hills Special Groundwater Protection Area (SGPA)

The subject property is located within the North Hills Special Groundwater Protection Area (SGPA) which is classified as a "critical environmental area" (CEA) by the NYSDEC. Potential impacts to the SGPA/CEA, consistency with the Long Island Special Groundwater Protection Area Plan (1992), and evaluation of this CEA in terms of potential environmental significance are thoroughly examined in **Sections 2.4** and **2.5** of this document.

1.4 Project Design and Layout

1.4.1 Overall Site Layout and Description

The proposed project involves the creation of a 46-lot single-family residential subdivision on a 30.43-acre parcel located west of Searingtown Road and Christopher Morley County Park and north, south, and east of existing multifamily residential development in the Village of North Hills. Lots will range from the minimum of 20,000 SF (0.46-acre) to 39,256 SF (0.90-acre) with an average lot size of ±0.55-acre. The narrowest of the proposed lots will have a width at the front yard setback line of 115 feet and a minimum of 83 feet of road frontage, thereby complying with the zoning requirements for new lot configuration in the R-3 zoning district.

Access to the subdivision will be provided from Searingtown Road at its current location, near the north end of the property. The existing site access is approximately 50 feet wide at the entrance point on Searingtown Road, and narrows to approximately 20 feet in width as it extends into the site. The proposed access point would remain in its current location, but is proposed to be widened to allow for two separate ingress and egress lanes, which are proposed to be gated and controlled by security. The proposed interior roadways will be privately owned and maintained by the homeowners association. The right of way and pavement width is proposed to be 30 feet wide, consistent with many private developments within the Village.

A secondary access/egress is proposed to be provided to/from Searingtown Road, south of the main access. This secondary access will be used for emergency purposes only but will be periodically maintained by the property owners association to ensure its use and availability in the event of an emergency. The main access will be gated and manned by a guard. The subdivision will be served by a network of internal streets that will be privately owned and

maintained by the property owners association. The emergency access will be "permanently" closed off by a crash gate and will only be opened in the event of an emergency.

Two accessory structures are proposed in support of the residential lots: a gatehouse located along the main access roadway, and an approximately 1,500 SF (footprint) clubhouse located within an approximately 0.65 acre open space area on the south side of the proposed entrance road and abutting Searingtown Road. The clubhouse is anticipated to be single-story building with finished basement. The proposed clubhouse is anticipated to provide recreational amenities (such as a fitness room and card lounge) for the exclusive use of the homeowners and their guests. A 15 space parking lot will be provided for employees and residents.

This single family residential land use fully complies with the use requirements of the district as set forth under § 215-11 C. of the Village Code and meets the Village's yield standard. The proposed subdivision also complies with the dimensional zoning standards set forth by the Village of North Hills Code, with the following waivers and relief requested:

Requested Planning Board waivers and ZBA variances for accessory structures are described below:

- Front Yard Principle Structure Setback: A Planning Board waiver is required for the relaxation of the minimum 50 foot front yard setback by to a minimum of 45 feet and an average of no less than 50 feet with the maximum front yard setback being no more than 20 feet greater than the minimum front yard setback on the site, as permitted by § 215-11 D. (4)). A waiver for 45 foot setback is requested for Lots: 1, 7, 23-28, 35, 37 and 44.

- Maximum Street Gradient: A Planning Board waiver is required for the relaxation of maximum street gradients exceeding an 8% slope to allow a maximum slope of nine percent for an approximately 60 linear foot area along the access roadway (§ 179-40 L. (1)).

- Minimum Right-of-Way (ROW) Width and Street Width: A Planning Board waiver is required for the relaxation of the minimum right-of-way (ROW) width from 50 feet to 30 feet (§ 179-40 H. (1)) and for reduction of street width of 34 feet to 30 feet.

- Setback from Searingtown Road (CR 101): ZBA variances pursuant to § 215-24 F. (1) are required for the relaxation of the 150-foot setback requirement from Searingtown Road for:
    - The gatehouse will be setback approximately 92 feet from the County right-of-way
    - The clubhouse parking area will be setback approximately 48 feet from the County right-of-way.
    - Proposed retaining walls within the 150 foot setback for the emergency access road, Lots 23-26 and the clubhouse due to steep topographic conditions.

- Clubhouse Front Yard Setback: ZBA variance for the relaxation of the front yard setback for the clubhouse from 50 (or 45 pursuant to § 215-11 D. (4)) to 27 feet to the internal roadway.

Based on comments received from the Planning Board during the initial Sketch Plan phase, three large specimen trees or tree masses identified on the property containing a Weeping European

Beech and two areas of European Purple Beech will be preserved. Additionally, existing wooded buffers are proposed to be retained along Searingtown Road in the southeast portion of (across from the County Park) and along an existing Scenic Easement located in the north central and northwestern perimeter of the property.

The proposed subdivision includes an extensive landscape plan to provide privacy and buffer the proposed development (see **Attachment 1, Landscape and Street Lighting Plan)**. As part of the subdivision improvements, the Applicant proposes the installation of evergreen screen comprised of a staggered double row of evergreen trees along the perimeter of the property were natural vegetation will be removed (see **Landscape and Street Lighting Plan, Attachment 1**). This evergreen buffer proposes species planted 10 to 12 feet in height to provide immediate screening of the proposed residences from adjacent properties. Street trees will be planted along both sides of each of the proposed streets, and will be spaced, on average, 40 feet on center. Decorative street lighting will line one side of each of the streets and, like the street trees, will also be spaced at 40-foot intervals. Numerous trees and shrubs, including both evergreen and deciduous species, will be provided along the shoulders of the main access road, within the main access road's median, and around the proposed stormwater recharge basin. Extensive landscaping is also proposed along the proposed emergency access road and around the proposed clubhouse parking lot to provide screening of these areas along Searingtown Road. This proposed landscaping and the retention of natural areas in the southeastern portion of the property will also screen the proposed retaining walls within the 150 foot setback along Searingtown Road. Individual lots will be landscaped after homes are constructed to further enhance residential privacy, the physical beauty and character of the development and area, and to screen and buffer any potentially undesirable aspects of development (see "**Typical Lot Planting Plan**" schematic provided on **Attachment 1, Landscape and Street Lighting Plan**).

Stormwater from the private street system will be captured in a series of drainage inlets and conveyed to a proposed recharge basin and several clusters of interconnected leaching pools proposed within several proposed drainage easements located along the access roadway throughout the property and along the emergency access roadway. The existing recharge basin located at the northeast end of the property near Searingtown Road (in the pan-handle portion of the property) serves the adjacent multi-family development to the north. This existing recharge basin is proposed to remain unchanged. The proposed recharge basin for use by the Manhasset Crest residences would be located to the south of the existing recharge basin, on the north side of the main access (approximately 62,000 cubic feet of storage volume). Additionally, a 15 foot wide drainage easement with eleven leaching pools exists along the southern perimeter of the property. This drainage easement is proposed to be slightly expanded and additional leaching pools installed to ensure stormwater is adequately collected and recharged from the proposed development. Additionally, leaching pools will be provided on the individual lots to provide stormwater catchment from roofs and other impervious surfaces and landscaped areas. The overall drainage system is designed to store in access of a five-inch rainfall (see **Utility Plan, Attachment 1**).

All wastewater generated on-site will be conveyed to the existing Nassau County sanitary sewer available in the right-of-way of Searingtown Road for conveyance to and ultimate treatment and

disposal at the County's Bay Park Sewage Treatment Plant (STP). Potable water will be furnished by the Manhasset-Lakeville Water District. School aged children to attend the public school system will attend Manhasset Union Free School District and fire and police services will be provided by Manhasset-Lakeville Fire District the Nassau County Police Department's 3rd Precinct, respectively.

The **Table 1-1** provides a listing of the subject site's existing and proposed coverages and physical characteristics.

TABLE 1-1
SITE AND PROJECT CHARACTERISTICS

Parameter	Existing Conditions	Proposed Project
Number of Lots:	1	46
Coverages:	---	---
Buildings/impervious surfaces (acres)	2.16	9.33(1)
Recharge Basin (acres)	0.48	0.76
Lawn/Landscaped (acres)	10.62	18.90(2)
Natural Area (acres)	16.71	1.44
Nonvegetated (bare earth/fill) (acres)	0.46	0
Total Site (acres)	30.43	30.43
Trip Generation:	---	---
AM Peak Hour (vph*)	5(3)	35
PM Peak Hour (vph)	5(3)	47
Saturday Midday (vph)	2(3)	44
Water Resources:	---	---
Wastewater (gpd*)	0	14,700(4)
Total Water Use (gpd)	0	44,225(5)
Recharge Volume (MGY*)	16.55(5)	22.95(6)
Nitrate Concentration (mg/l*)	0.01(6)	1.56(7)
Miscellaneous:	---	---
Residents (capita)	0	195(8)
School-Age Children (capita)	0	60(9)
Solid Waste Generation (lbs/day)	0	858(10)

(1) Includes buildings, roads, driveways, the emergency access, clubhouse and possible future impervious accessory structures. Based on proposed road surface area, including the emergency access, plus the sum of 15 percent building coverage (within applicable setbacks) + an additional 3,000 SF of other impervious areas for each lot.
(2) Landscaping coverage includes the three tree clusters of European Beech, which are proposed to be retained (totaling 0.54 acres
(3) Existing trips estimated based on existing limited activity. The analysis of proposed conditions was based on a conservative 47 single-family residential lots instead of the proposed 46 lots. Proposed trip generation based on ITE handbook, 9th Edition, 2012 for land use code 210 – "Single-Family Detached Housing"; See TIS (**Appendix H**) for proposed project.
(4) Based on NCHD sewage design flow requirements for 46 single family homes at 300 gpd per home (total of 13,800 gpd) and 0.3 gpd/sf of clubhouse space for a 3,000 SF GFA building (900 gpd).
(5) Assumes all landscaped areas are irrigated @ 16.0 inches/year & fertilized @ 2.3 lbs/1,000 SF plus projected domestic use.
(6) Based on SONIR model estimate provided in **Appendices E-2 and E-3**.
(7) Based on SONIR model estimate provided in **Appendices E-2 and E-3**.

(8) Based on 4.23 persons per 5-bedroom single-family detached residence valued at greater than $748,500 in the State of New York (Burchell *et al*, 2006).
(9) Based on total of 1.47 school aged children per 5-bedroom single-family detached residence valued at greater than $748,500 (Rutgers University, 2006) and a public school enrollment within the District of 88% (see **Section 3.3**).
(10) Assuming 4.4 lbs/day/capita (USEPA, MSW, 2011 http://www.epa.gov/epawaste/nonhaz/municipal/index.htm)

* Abbreviations: vph (vehicles per hour); gpd (gallons per day); MYG (million gallons per year); mg/l (milligrams per liter aka parts per million)

The proposed homes will fully comply with Village height requirements (maximum 35 feet) and building footprints have been analyzed at 15 percent of the lot area within the applicable building envelopes (which could range from approximately 1,300 SF to 5,500 SF). Accessory structures, including potential pool and pool house locations, and detached garages in a limited location for Lots 24 and 25, have been included on the Preliminary Plans (see **Attachment 1, Preliminary Map**) and are placed within the permitted setbacks of the R-3 District. Such accessory structures are typical of residential single family development, and will be subject to individual plot plan review by the Architectural Review Board pursuant to Chapter 12 of the Village Code.

1.4.2 Vehicle Access, Road System and Parking

Access to the site is proposed from Searingtown Road at its current location (i.e., northeast side of the property, south of the recharge basin). The subject site is presently accessible via Searingtown Road, which has convenient access off of the LIE's northern service road and from the Northern State Parkway via Shelter Rock Road. The existing site access is approximately 50 feet wide at the entrance point on Searingtown Road, and narrows to approximately 20 feet in width as it extends into the site. The proposed access point would remain in its current location, but is proposed to be widened to allow for two separate ingress and egress lanes. The slope of the roadway is proposed to exceed the standard eight percent slope for a limited portion of the access roadway, beginning west of the gatehouse and proceeding approximately 70 feet into the property (nine percent slope).

The entrance will be equipped with a manned security booth and automated security gates. A secondary (emergency) access/egress road will also be provided, approximately 180 feet south of the main access. This access will be maintained by the property owner's association and will be used for emergency purposes only. The emergency access/egress will be equipped with a gate to prevent unauthorized non-emergency access and egress.

The proposed subdivision streets will be laid out in a hybrid grid/curvilinear street pattern as shown on the **Preliminary Map** (see **Attachment 1** at the end of this document). Streets will be equipped with Belgium block curbing and sidewalk improvements will be provided along Searingtown Road. All internal road rights-of-way will be 30 feet in width from curb to curb with the exception of the access driveway which will be wider near the gatehouse to accommodate two entrance lanes (one lane for residents and one for visitors that must check in at the gatehouse), a median containing the gatehouse and landscaping, and a single exit/egress lane. The road will constructed of a 4-inch minimum dense graded aggregate base course, $1^1/_2$-inch minimum asphalt concrete binder course, and 1-inch minimum asphalt concrete top course. The street design will provide ample access to vehicles such as garbage trucks, school buses, moving

vans, and emergency vehicles and will be reviewed by the Village Engineer to ensure that the street's design and construction materials satisfy the requirements of the Village. All internal roadways and will be maintained by the property owners association.

Section 215-35, "Parking and loading space," states that: "[in] all residential districts, there shall be at least three off-street parking spaces per dwelling unit, at least two of which shall be enclosed, excluding common parking." Private parking will be provided within individual driveways and two-car garages and will comply with the above requirement. A parking lot consisting of 15 parking spaces will be provided for the clubhouse building.

1.4.3 Drainage System

All stormwater runoff generated on developed surfaces will be retained on-site and recharged to groundwater through several interconnected systems of leaching pools, a new on-site stormwater recharge basin, individual roof drains and drywells within the individual lots, and pervious vegetated/landscaped groundcover that allows for direct filtration. Proper site grading, street curbing, and subsurface piping will convey stormwater to leaching pools and recharge basin. Drainage systems will be designed in accordance with the requirements of the Village and Nassau County Department of Public Works (NCDPW), and will undergo review by both agencies. The new recharge basin will be located on the northwest corner of the intersection of the subdivision access road and Searingtown Road. Leaching pools will be located in various locations throughout the property, but are mainly clustered along the perimeter of the southern roadway (Sequoia Drive); and along the southern perimeter of the property in the area of the existing drainage easement.

The **Grading Plan and Recharge Basin Detail** (see **Attachment 1**) provides the overall layout of the proposed drainage system, designed to accommodate runoff generated from a 5-inch storm event with a total capacity of 175,051 cubic feet (CF), including 62,000 CF of capacity in the proposed recharge basin. The drainage systems on the individual lots within the watershed contributing area of the NCDPW drainage systems within the adjacent roadways has been designed for an eight-inch rainfall event. **Section 2.4.2** contains a detailed discussion of the proposed drainage system on site. The future property owners association will be responsible for all maintenance of the drainage facilities, as well as internal roadways, the clubhouse/gatehouse and open space/common areas.

1.4.4 Water Supply and Wastewater Disposal

Nassau County Health Department's (NCHD) design flow criterion of 300 gallons per day (gpd) per single family home. It is anticipated that approximately 14,700 gpd of potable water will be consumed and the same amount of wastewater generated from residential units (13,800 gpd) and the clubhouse (900 gpd). The projections for total site water usage and wastewater generation including the clubhouse building, is provided in **Table 1-1**. The project will connect to the existing 8-inch Nassau County sewer main located along the west side of Searingtown Road. From there wastewater will be conveyed to the County's Bay Park STP where it will be treated and released. The Nassau County Department of Public Works (DPW) in its October 6, 2014

letter to NP&V (**Appendix A**) indicated that the system has capacity to accept the volume of waste generated and the STP has the treatment capacity to accommodate the projected flow for the proposed homes shown in **Table 1-1**.

The subject property is located within the Manhasset-Lakeville Water District (MLWD). The MLWD in its October 7, 2014 letter to NP&V indicated that the District is in compliance with the NYSDEC's pumpage cap and that:

> *…water is available for the project subject to the owner signing a developer's agreement to expand the District's infrastructure as required to provide the requested water service* (see correspondence, **Appendix A**).

The MLWD also noted that due to land elevations in the area, a pumping system is used for water distribution and that the existing pumping system may have to be expanded to serve the subdivision. The Applicant and its consultants continue to coordinate with the MLWD to address anticipated water demand and infrastructure needs. Total anticipated water demand for the proposed subdivision, including both domestic and irrigation use, is 44,225 gpd as shown in **Table 1-1**.

Sustainable strategies will be incorporated into the home designs to provide both efficiency and energy savings. The Manhasset Crest Design Guidelines (**Appendix B-1**) include sustainability requirements which will provide for energy efficiency and water use savings. These include compliance with the following:

- All homes will achieve WaterSense label (an U.S. Environmental Protection Agency, "EPA" Partnership Program[1]), which are designed to reduce residential water use indoors and out by approximately 20 percent, allowing homeowners to use less water and energy. Design considerations include demand-controlled recirculating hot water systems and WaterSense labeled fixtures for kitchens and bathrooms.
- All homes will meet Energy Star homes design standards, which provide energy efficiency savings of up to 30%, including excellent air sealing, appropriately-sized mechanical equipment, and proper ventilation in bathrooms and kitchens.
- All homes will meet EPA Indoor airPLUS labeling in conjunction with the Energy Star label. This label requires installation of features that do not introduce pollutants to the air in and around the home during construction and occupancy

1.4.5 Landscaping and Lighting

Since the project currently under consideration involves the subdivision of land into 46 private single-family residential lots and not the individual lot construction at this time, the primary landscaping considerations involve the planting of street trees, perimeter screening vegetation and the installation of street lighting as shown on the **Street Lighting and Tree Plan Site Details** (see **Attachment 1** at the end of the document). Street trees will be planted 40 feet on center, including *Quercus rubra* (red oak), *Tilia cordata* (little leaf linden), *Acer rubrum* (red

[1] http://www3.epa.gov/watersense/

maple), and sweet gum (*Liquidimbar styriciflua*). All species with the exception of the little leaf linden are native to Long Island. Street trees will be $3^1/_2$ to 4-inches in caliper and will be planted along both sides of each of the subdivision streets. On average, trees will be spaced every 40 feet in conformance with the Village's Site Development Regulations (Article IX, Required Subdivision Improvements, § 179-52, "Trees."). Additionally, existing wooded buffers are proposed to be retained along Searingtown Road in the southeast portion of (across from the County Park) and along the existing Scenic Easement located in the north central and northwestern perimeter of the property. An evergreen screen comprised of a staggered double row of evergreen trees (planted at 10-12' in height) is proposed along the perimeter of the property where natural vegetation will be removed. Numerous trees and shrubs, including both evergreen and deciduous species, will be provided along the shoulders of the main access road, within the main access road's median, and around the proposed stormwater recharge basin. Extensive landscaping is also proposed along the proposed emergency access road and around the proposed clubhouse parking lot to provide screening of these areas along Searingtown Road. (see **Landscape and Street Lighting Plan, Attachment 1**). Individual lots will be landscaped after home construction. A typical individual lot planting plan is provided on the Landscape Plan, depicting foundation and perimeter plantings.

For analysis purposes, it is assumed that the entire 18.90 acres of landscaping will be fertilized at a rate of 2.3 lbs/1,000 SF and irrigated at a rate of 16 inches annually. It is noted that in an effort to reduce the amount of fertilizer dependent species, a combination of native and compatible species are proposed for street trees which will likely reduce the amount of fertilizer necessary once the initial applications to establish healthy growing conditions are complete.

Subdivision streetlights will be installed to provide night time illumination of streets for resident and visitor safety and security. Street lighting will consist of decorative lantern-style fixtures mounted on 15-foot high light poles. Streetlights will be installed along one side of each of the proposed subdivision streets and the access road and will be spaced on average 40 feet on center. Electrical connections will be underground in accordance with Village Code § 179-47, "Utilities" (see **Street Lighting and Tree Plan, Attachment 1**).

1.5 Construction Schedule

Most of the subject property will be disturbed for the construction of streets and drainage improvements, installation of utilities, lot preparation, and home and driveway construction. As can be seen in **Figure 1-2**, the central and south-central portions of the site, where most of the previous development and other site disturbances had occurred, will require much less clearing than some perimeter areas where natural vegetation still exists.

There are several buildings and miscellaneous other structures that currently exist on the site, including a 108 SF pool shed, 522 SF garage, and 511 SF one-story masonry building, paved parking lots and driveways, a reflecting pool, stone maze, several sets of slate steps, a brick patio and other minor features. These buildings and structures will be demolished and shipped to a licensed off-site location that accepts C&D materials for proper disposal. . Prior to demolition,

an asbestos survey will be conducted to determine if asbestos may be present in any of the structures to be removed. Any known or suspected asbestos containing materials (ACM) that are identified will be removed in accordance with the NYS Department of Labor Industrial Code, Part 56. Based on the Phase I and Limited Phase II Environmental Site Assessments (ESAs) (**Appendix D)** that were previously conducted at the subject property, the only outstanding work that must be performed to address ESA concerns is the abandonment of a former sanitary system, which will include bottom sediment sampling of the cesspools and any necessary remediation prior to closure. This work will be conducted under the supervision of the NCDH in accordance with its sanitary system abandonment procedures, prior to the issuance of building permits. Overall, demolition activities and sanitary system abandonment are expected to take a limited period of time (2-3 months).

Access to the property during construction will be via Searingtown Road. The preferred route would be from the LIE to the North Service Road to Searingtown Road. These are major roadways which currently experience significant truck traffic. The property is large enough to provide staging areas and worker parking on-site; thus no worker parking is anticipated to occur on public streets.

Daytime noise levels would increase in the vicinity of the project site during the construction phase of the project. During the construction period, trucks and other heavy equipment working within the Project Site as well as conveying equipment and materials to the location, will generate noise in excess of the ambient noise levels. The effect of this noise generation will be attenuated as one moves away from the source of the noise through a combination of factors, including distance, intervening topography and vegetation. Noise levels will be higher during initial site grading and road construction and more limited during home construction. The noise impacts will be temporary in nature and intermittent depending on the construction stage. Construction activities are limited to Monday through Friday between the hours of 8:00 am and 6:00 pm to conform to Chapter 179, “Noise,” of the Village Code.

The construction process will begin with the installation of project limiting fencing to establish clearing limits and placement of silt fencing and perimeter erosion controls to minimize the transport of soil on and off-site during the construction period. The existing/remaining structures will be demolished and the debris generated from this demolition will be trucked off-site to an approved construction and demolition (C&D) landfill for disposal. Tree clearing will then take place, followed by overall rough grading, recharge basin excavation and the installation of retaining walls to establish the required street grades and lot areas for future individual lot development. Drainage improvements, stabilization of the interior roadways and the emergency access, and underground utilities will then be constructed or installed. Exposed soils will be seeded as soon as possible after disturbance to help stabilize them. The clubhouse, gatehouse and site entrance roadway are expected to first be completed, followed by landscaping of these areas. Installation of the subdivision interior roadways, drainage and subsurface utilities may proceed in a single phase or in multiple phases depending on lot sales. Perimeter and common area landscaping will be installed as season permits, once rough grading is completed and interior access roadways are established. Site preparation work is anticipated to require 6-12, with home construction beginning during this time, as individual building permits are issued.

Individual lot development will be subject to individual lot Architectural Review Board and building permit review. Construction on each lot is anticipated to proceed as the lots are sold and custom homes are designed for each lot, and necessary approvals are received. It is anticipated that the overall construction period will be four-five years, again based on market demand for the homes. Generally, construction on each individual lot is anticipated to take 12-18 months and will proceed as follows:

- A stabilized construction entrance would be provided on the interior subdivision roadway.
- Project limiting construction fencing will be installed to provide a visual barrier, as well as security during construction activities.
- Erosion controls will be installed, including perimeter silt fencing and drainage inlet protection around all grated drainage inlets to prevent sediments from entering and settling within any subsurface drainage structures.
- Clearing and rough grading of the individual lot in accordance with the approved Site Plan. Material staging areas and designated stock pile locations will be identified and protected.
- Foundation excavations, pouring of concrete and backfilling around basement walls would occur next. Temporary soil stabilization by the use of erosion control measures immediately following backfilling of the foundation on each lot would follow.
- Installation of subsurface utilities connections, drainage and sanitary systems.
- Final grading and temporary seeding of disturbed areas to stabilize disturbed areas and prevent or minimize sediment from washing on to adjacent properties. Dust control will be implemented during the course of soil disturbing activities.
- Exterior framing, installation of windows and doors, interior framing and utility hookups, and interior/exterior finishing.
- Final landscaping and driveway paving.

To minimize sediment and debris transported off-site by stormwater runoff and the impact to local water quality, erosion and sedimentation controls will be provided during project construction activities. Coverage under the New York State Department of Environmental Conservation (NYSDEC) General Permit for Stormwater Discharges from Construction Activities (NYSDEC GP-0-15-002, or General Permit) will be obtained prior to the initiation of construction activities. Prior to filing for any coverage, the NYSDEC requires that a Stormwater Pollution Prevention Plan (SWPPP) be prepared, including a detailed erosion and sediment control plan, to manage stormwater generated on-site during construction activities, and for post-construction stormwater management. A SWPPP would be prepared to ensure compliance with water quality and quantity requirements pursuant to NYSDEC Technical Guidance and the General Permit requirements. In addition, an erosion control plan incorporating the NYSDEC Technical Guidance manual, and use of erosion and sedimentation control measures such as silt fencing, storm drain inlet protection, turf reinforcement mat, and good housekeeping procedures will be utilized.

Large trucks and project site excavation have the potential to create fugitive emissions during the construction phase of the project. Dust control measures including use of watering trucks, limited the areas of disturbance undergoing grading activities, and temporary seeding, mulching and stabilization practices will reduces the potential for fugitive dust generation at the site. Additional best management practices that will be included in the SWPPP include covering of all trucks transporting soils and ensuring control of exhaust emissions from construction vehicles through documented maintenance of the vehicles' air pollution controls.

The drainage system and revegetation of the site will further provide permanent stormwater controls once construction is completed. Development of the property is not anticipated to significantly increase erosion/sedimentation or stormwater impacts, as a result of proper site grading procedures, erosion controls, and drainage system design.

1.6 Permits and Approvals Required

This Voluntary DEIS has been prepared in accordance with the NYS Environmental Quality Review Act (SEQRA) and its implementing regulations under Part 617, Title 6 of the New York Code of Rules and Regulations (6 NYCRR Part 617). The Applicant has opted to prepare this DEIS voluntarily at the outset of the SEQRA review process in order to provide the Village Planning Board, as lead agency, with a thorough evaluation of the Proposed Action and its potential impacts at the earliest possible stage (hence, a Voluntary DEIS). In accordance with Section 617.6 (a)(4) of SEQRA, the Planning Board may waive the requirement of an Environmental Assessment Form (EAF) Part I, if an application is accompanied by a DEIS. The voluntary DEIS describes the methods and techniques proposed by the Applicant to eliminate or mitigate potential environmental impacts, and provides the bases for issuance of a "Determination of Significance" as required by 6 NYCRR Part 617, SEQRA. The Village Planning Board can either issue a Negative Declaration, if no significant adverse environmental impacts are identified, or issue a Positive Declaration, if one or more significant adverse impacts are identified. A Negative Declaration concludes the environmental review process pursuant to SEQRA. A Positive Declaration would require the preparation of a Final EIS. Upon completion of an FEIS, the Board will be responsible for the preparation of a Statement of Findings, which would provide the basis for the final decision on the application.

Table 1-2 lists the permits and approvals required for the proposed project, along the reviewing/issuing agency.

TABLE 1-2

PERMITS AND APPROVALS REQUIRED

Agency	Approval
Incorporated Village of North Hills Planning Board	Subdivision, waivers
Incorporated Village of North Hills Board of Appeals	Variances for accessory structure setbacks and clubhouse parking setback
Nassau County Planning Commission	239m Referral
Nassau County Department of Health	Water Supply Sewage Discharge
Wastewater Treatment Contract	Sewer District No. 2 (Albertson – Williston)
Manhasset – Lakeville Water District	Water Supply Connection
Nassau County Department of Public Works	Road Access Permit, Drainage & Sewer Connection, Waiver of 8" drainage requirement to 5"
SPDES Stormwater Permit	NYSDEC
Incorporated Village of North Hills Architectural Review Board	Individual Lot Development
Incorporated Village of North Hills Building Department	Demolition and Building Permits

SECTION 2.0

NATURAL ENVIRONMENTAL RESOURCES

2.0 NATURAL ENVIRONMENTAL RESOURCES

2.1 Topography

2.1.1 Existing Conditions

The topography of the site and vicinity is dominated by hills and knolls composed of glacial till associated with the Harbor Hills moraine. Topography at the site is flat to very gently sloping within the central/interior and west-central sections of the property and moderate to steeply sloping along most of the property's outer perimeter. Slopes are mostly continuous and unidirectional along the southern and eastern perimeters of the site, where they dip to the south and east, respectively, and irregular to the north where several small low knolls exist. Slopes on the south side of the property are gradual and gentle to moderately steep, with the exception of a small circular knoll in the southwest corner of the property which exhibits steeper topography that slopes in all directions (360º) from its top. Slopes on the east side of the property dip moderately toward the east but steepen near Searingtown Road. The steepest slopes are found on the east side of the property adjacent to Searingtown Road, along the side slopes of the small knolls on the north side of the site, and around the existing stormwater recharge basin located at the northeast end of the property. **Figure 2-1** depicts topography and landforms on and in the vicinity of the project site.

The subject property varies in elevation from a high of 270 feet above mean sea level (msl) at the tops of two small knolls located to the north of the former three-story building and a low of 196 feet above msl at the property's southeastern corner, adjacent to Searingtown Road. Site elevations near the center of the property, where the former three-story, building once stood and associated parking areas still remain, range from approximately 250 feet above msl to 262 feet above msl. The stormwater recharge basin located at the northeast end of the property ranges in elevation from 220 feet above msl at its bottom to 240 feet above msl at its top in the upper northwest corner of the property. **Figure 2-2** depicts site elevations and topographic contours at one-foot contour intervals. The **Existing Conditions- Demolition Plan** (see **Attachment 1**) provides additional topographic detail at a smaller scale.

Table 2-1 presents the results of a slopes analysis of the site, including slope interval and total acreage by interval. This table indicates that existing steep slopes (those greater than 15%) comprise 5.71 acres or 18.8% of the property, much of which falls within the required setback areas along Searingtown Road.

TABLE 2-1

EXISTING SLOPES

Slope Interval	Existing Conditions	
	Acreage	% of Site
0% to 10%	18.70	61.45
10% to 15%	6.02	19.78
15% to 20%	2.75	9.04
20% to 25%	1.47	4.83
25% and above	1.49	4.90
Total	**30.43**	**100.00**

Figure 2-3 is a Slope Analysis Map which provides a color coded illustrated of existing topography by slope interval.

2.1.2 Anticipated Impacts

The proposed project will result in changes to the existing site topography to provide suitable terrain for home and driveway construction, as well as for excavations for stormwater control infrastructure, building foundations, and underground utilities, and construction of the proposed access road and emergency access. The **Grading Plan** (see **Attachment 1** at the end of this document) depicts the grading to be performed on the project site.

Grading and construction activities will require the clearing/disturbance of most of the subject property; however, an estimated 1.44 acres will be kept as naturally vegetated perimeter buffer, an additional 0.54 acres associated with the three tree clusters will remain undisturbed and approximately 18.90 acres is anticipated to be landscaped. The total site vegetation, therefore, is ±20.34 acres or approximately 66 percent of the 30.43-acre site. **Table 1-1** provided in **Section 1.4** of this DEIS contains a summary of the subject site's existing and proposed coverages and physical characteristics.

The proposed grading plan has been designed to follow the existing site topography to the extent possible. The proposed site access roadway is designed to align to meet the existing grade to the extent possible, while maintaining the necessary slope standards for roadway construction. Rather than mass grading the overall site to a level grade, the intent to allow for grade transitions within the individual lots through the design of the individual homes. As the homes are designed, a more individual, lot by lot grading concept can be applied around each lot's existing topography. This provides for significant reductions in the amount of cut required across the site, as well as provides for greater design interest and individuality in development of each of the lots. This approach also allows for future design flexibility and the potential to retain certain individual trees on a lot as the individual homes are designed. It is noted that grading of the individual lots is also necessary to direct stormwater to on-site drainage systems. Retaining walls will be necessary to accomplish the grade transitions on the individual lots and to minimize grading and retain existing vegetation, including the northern most specimen tree preservation cluster. In particular, lots in the south and southeast side of the property, lots along Searingtown

Road, lots in the northwest corner of the property and the lots surrounding the northern specimen tree cluster are expected to require use of retaining walls. Retaining walls are also required for the proposed emergency access roadway, in order to provide an adequate grade up the hillside.

The new 0.74-acre stormwater recharge basin on the north side of the site access road will require excavations from the existing surface elevation of 230 feet to the proposed 208 foot contour at the center bottom of the basin for a total maximum depth of 22 feet. The existing and proposed recharge basins and leaching pools and drywells at various locations throughout the property will capture and recharge stormwater generated on paved surfaces by a minimum of a five-inch rainstorm. A waiver from the NCDPW drainage requirements to collect an eight-inch rainfall will be requested, although the drainage design for the individual lots within the watershed of the Nassau County roadways are designed for an eight-inch rainfall event The total stormwater storage provided is approximately 175,051 CF (see **Drainage Plan**, **Attachment 1**). The total quantities of the cut and fill for site development activities are estimated to be approximately 145,500 cubic yards (CY) of cut (including the excavations necessary for the recharge basin and overall site grading), of which approximately 60,000 CY will be utilized on-site for fill; resulting in an estimated 85,500 CY of excess material that will be exported off-site (much of which comes from the 62,000 CF capacity recharge basin). It is expected that five trucks (with 30 yard capacity), making 10-15 round trips per day would be able to complete the removal of this material in approximately 8-11 weeks (assuming a five day work week). It is anticipated that multiple trucks will be staged on-site for loading to expedite the removal schedule. Truck traffic would be temporary, and would occur on roads that currently provide access for buses and trucks (Searingtown Road, LIE service road and LIE). (See **Section 1.5** for additional discussion on the anticipated construction schedule and construction control measures).

Erosion control measures including perimeter silt fences, temporary diversion swales, check dams and similar best management practices will be utilized on site to minimize loss of soil during construction, particularly in locations where erosion and sedimentation could adversely impact adjoining properties or be deposited on to streets. Retaining walls are also proposed in some areas to stabilize slopes (on the east side of a section of the emergency access road, along most of the south and southeast sides of the property and along the scenic easement on the north side of the site). These retaining walls will address abrupt grade changes and provide permanent slope stabilization. Soils will be wetted if necessary to reduce fugitive dust, and seeding and planting of exposed soils will occur as soon as possible following construction. As long as erosion is controlled during grading and construction, the potential for sediment transport will be minimal, and no significant loss of soils is expected.

Short-term (i.e., construction period) impacts may occur include noise and dust raised by truck movements, particularly during clearing-grading operations and off-site trucking. Construction traffic will enter and exit the site from the existing access/egress off of Searingtown Road. Access to Searingtown Road and the subdivision property can be accessed via major streets and highways (the LIE, LIE service roads, Searingtown Road, etc.) and therefore no residential neighborhoods will be significantly affected. Most equipment operations and construction will

occur on the interior of the site and, it is noted that these impacts, while unavoidable, are temporary in nature. Construction hours will occur on weekdays between 8:00 am and 5:00 pm, exclusive of legal holidays, in accordance with the requirements of § 156-3 G., "Enumeration of prohibited noises," of the Village Code.

2.1.3 Proposed Mitigation

- Grading, drainage, and erosion and sedimentation control plans have been prepared to address impacts associated with slope disturbance and the modification of existing surficial landforms and drainage patterns (see **Attachment 1**). Techniques identified by the above referenced plans to stabilize slopes, prevent or mitigate erosion and sedimentation, ensure proper drainage, and prevent other topography related impacts include but are not necessarily limited to: delineation of site clearing limits (including around the three tree clusters to be preserved, the natural buffer areas on the east side of the property, the scenic easement, etc.), silt fencing along work area perimeters, soil stockpile stabilization (seeding or mulch for periods of non-disturbance lasting longer than 7 days and stockpiles), inlet protection, check dams and temporary diversion swales, perimeter berms, development and/or reseeding/ revegetation of bare soils as soon as possible after disturbance, use of retaining walls in areas with abrupt grade changes, curbing and street crowns to ensure the collection of stormwater along proposed streets, and the capture and recharge of stormwater flows from impervious surfaces on-site through a system of catch basins, leaching pools, and new and expanded recharge basins that are designed in conformance with professional engineering standards and specifications.
- The existing topographic landforms on the property are not considered unique or significant natural features. The steeper slopes at the southeast corner of the site along Searingtown Road will remain largely undisturbed, with the exception of the extension of the sewer connection and grading will be limited to only what is necessary to provide suitable streets and home sites.
- Coverage under the General Permit for Stormwater Discharges from Construction Activities (NYSDEC Permit No. GP-0-15-002, General Permit) will be sought and a SWPPP will be prepared.
- The hours of truck operation on roadways will conform to Village noise regulations outlined under § 156-3 G., "Enumeration of prohibited noises," of the Village Code, and as such, will be limited to the hours of 8:00 am through 5:00 pm, Monday through Friday, exclusive of legal holidays. All construction vehicles will be staged on-site and will under no circumstances be parked within the rights-of-way of any public or off-site privately owned street.

2.2 Soils

2.2.1 Existing Conditions

The US Department of Agriculture's Soil Survey of Nassau County, New York **(Wulforst, 1987)** provides a complete mapping, categorization, and description of soils found in the County. Soils are classified by similar characteristics and depositional environment into soil series, which are in turn grouped into soil associations. An understanding of soil character is important in environmental planning as it aids in determining vegetation type, slope, drainage characteristics, engineering properties, and land use limitations. These descriptions are general, however, and soil characteristics may vary greatly from place to place; particularly soils of glacial origin.

The Soil Survey identifies the subject property as lying within an area characterized by Montauk-Enfield Association soils. This association is characterized as containing very deep, nearly level to strongly sloping, well drained, medium and moderately coarse-textured soils that are found on knolls and hills. Steeper parts of this soil association are commonly found on hills or along drainageways and areas with less steep slopes are found on broad ridgetops and hillcrests or on footslopes.

Five (5) soil types have been identified on the project site. The approximate locations and aerial extent of these soils are depicted in **Figure 2-4**. As can be seen, the Montauk fine sandy loam (MfB) covers most of the interior of the parcel, is the most prevalent soil type identified on the property, and has been disturbed in part by past development of the site. Montauk fine sandy loam (MfC) soils are the second most abundant, but are confined to areas of moderately-steep slope found along the eastern perimeter of the site and in its northwest corner. These areas appear to have experienced little or no disturbance. Riverhead sandy loam (RdD) soils exist along the northern property boundary, as well as in small areas on the eastern and western sides of the site, where slopes are among the steepest. The Scio silt loam, till substratum (SdA) soil type is located on the west side of the property in the area of the reflecting pool, between the western property boundary and the maze. The fifth soil type, Urban land-Montauk complex, 3 to 8 percent slopes (UnB), is shown along the southern boundary of the property. A detailed description of each of the soil types identified on-site is provided below:

> *Montauk fine sandy loam, 3 to 8 percent slopes (MfB)* − This soil type is typically found on benches, side slopes of hills and on the tops of small knolls and ridges. It is very deep, well drained, and is associated with gently sloping topography. MfB soils exhibit moderate to moderately rapid permeability in the surface and subsoil layers and have moderately slow permeability in the substratum. Perching of water may occur at depths of 2 to 2.5 feet. Water capacity is moderate, runoff is medium, and erosion hazard is slight to moderate. Seasonal wetness and slow permeability in the substratum are the main limitations of this soil, which may affect the functioning of septic and drainage systems and cause water to enter basements; while wetness and frost action can affect streets. The soil is well suited for landscaping but may contain stones and is classified as a prime farmland soil suggesting a high level of fertility.

Montauk fine sandy loam, 8 to 15% slope (MfC) − This soil is commonly found on the sides of small hills and ridges and most areas are irregular in shape or long and narrow. The soil is characterized as very deep, well drained, and strongly sloping. A few areas may be rolling or contain slopes that fall in different directions within short distances. Most areas that contain this soil are within woodlands, although some are found in pasture grasses and still others are in native vegetation, with some areas used for low-density housing. Seasonal wetness and slope limit the soil's suitability for dwellings with or without basements and the substratum tends to restrict the downward movement of water. Erosion is a hazard in areas where the plant cover is removed during grading.

Riverhead sandy loam, 15 to 25 percent slopes (RdD) − This soil type is commonly found on moderately-steep slopes on the sides of hills and ridges and on side slopes adjacent to drainageways. A few areas are hilly or may have irregular slopes. RdD is described as very deep and well drained with moderately rapid permeability in the surface layer and subsoil and very rapid permeability in the substratum. Available water capacity is moderate, surface runoff is medium to rapid, and erosion potential is severe. Slope is the primary limitation for dwellings and erosion can also be a concern in areas that are cleared for development. The soils are not conducive to the proper functioning of on-site sewage disposal systems due to slope and the poor filtering capacity of the substratum. Slope can also place limits on the construction of streets, and both slope and the potential for erosion can affect landscaping.

Scio silt loam, till substratum, 0 to 3 percent slopes (SdA) − This soil type is typically found in low lying areas; however, some areas containing this soil are rolling or slope in different directions within short distances. SdA soils are very deep, nearly level, and well drained. They exhibit moderate permeability in the surface layer and subsoil and moderately slow or slow permeability in the substratum. Available water capacity is high, surface runoff is slow, and erosion potential is slight to moderate. Seasonal wetness can affect home sites and the installation of sanitary systems. Frost action and the soil's limited strength may also place limitations on the construction of streets. The soils are considered to be well-suited for landscaping due to its high available water capacity, but can be affected by seasonal wetness. SdA soils are considered to be a prime farmland soil.

Urban land-Montauk complex, 3 to 8 percent slopes (UnB) − UnB soils tend to be very deep, well drained and are found on the gently sloping tops and sides of low hills and broad ridges. These soils exhibit moderately rapid and moderate permeability in the surface layer and subsoil and slow or moderately slow permeability in the substratum. Seasonal wetness, slow permeability, and frost action are limiting factors affecting the construction of streets. The UnB soil type is an "urban" soil classification which is typically developed with buildings, roads, parking lots and other man-made structures. Since the portion of the project site that is mapped as "UnB" is currently vegetated, undeveloped and contains only a narrow 15-foot wide "proposed" wooded drainage easement, the UnB mapping unit is likely associated with the private development to the south rather than the subject parcel.

The Soil Survey was reviewed for information relating to possible limitations that the identified soils may present. Constraints commonly associated with these soils are summarized below in **Table 2-2**.

TABLE 2-2
SOIL RESTRICTIONS AND LIMITATIONS

<table>
<tr><th></th><th>Montauk fine sandy loam (MfB)</th><th>Montauk fine sandy loam (MfC)</th><th>Riverhead sandy loam (RdD)</th><th>Scio silt loam, till substratum (SdA)</th><th>Urban land-Montauk complex (UnB)</th></tr>
<tr><td>Restriction for use as:</td><td>---</td><td>---</td><td>---</td><td>---</td><td>---</td></tr>
<tr><td>Camp areas</td><td rowspan="2">Moderate: percolates slowly</td><td rowspan="2">Moderate: slope, percolates slowly</td><td rowspan="3">Severe: slope</td><td rowspan="4">Moderate: wetness</td><td rowspan="2">Moderate: percolates slowly</td></tr>
<tr><td>Picnic areas</td></tr>
<tr><td>Playgrounds</td><td>Moderate: small stones, slopes</td><td>Severe: slope</td><td>Moderate: slope, small stones</td></tr>
<tr><td>Paths and trails</td><td colspan="2">Slight</td><td>Moderate: slope</td><td>Slight</td></tr>
<tr><td>Potential for habitat type:</td><td>---</td><td>---</td><td>---</td><td>---</td><td>---</td></tr>
<tr><td>Wild herbaceous plants</td><td colspan="5" rowspan="3">Good</td></tr>
<tr><td>Hardwood trees</td></tr>
<tr><td>Coniferous plants</td></tr>
<tr><td>Wetland plants</td><td>Poor</td><td colspan="2">Very poor</td><td colspan="2">Poor</td></tr>
<tr><td>Openland wildlife</td><td colspan="2">Good</td><td>Fair</td><td colspan="2">Good</td></tr>
<tr><td>Woodland wildlife</td><td colspan="5">Good</td></tr>
<tr><td>Wetland wildlife</td><td colspan="3">Very poor</td><td>Poor</td><td>Very poor</td></tr>
<tr><td>Restrictions for use as:</td><td>---</td><td>---</td><td>---</td><td>---</td><td>---</td></tr>
<tr><td>Shallow excavations</td><td>Moderate: dense layer, wetness</td><td>Moderate: dense layer, wetness, slope</td><td>Severe: slope, cut banks cave</td><td>Severe wetness, cutbanks cave</td><td>Moderate: dense layer, wetness</td></tr>
<tr><td>Dwellings without Basements</td><td rowspan="2">Moderate: wetness</td><td rowspan="2">Moderate: wetness, slope</td><td rowspan="4">Severe: slope</td><td colspan="2">Moderate: wetness</td></tr>
<tr><td>Dwellings with Basements</td><td>Severe: wetness</td><td>Moderate: wetness</td></tr>
<tr><td>Local roads</td><td>Moderate: wetness, frost action</td><td>Moderate: wetness, slope, frost action</td><td>Severe: frost action</td><td>Moderate: wetness, frost action</td></tr>
<tr><td>Lawns and landscaping</td><td>Slight</td><td>Moderate: slope</td><td>Moderate: wetness</td><td>Slight</td></tr>
<tr><td>Features affecting:</td><td>---</td><td>---</td><td>---</td><td>---</td><td>---</td></tr>
<tr><td>Drainage</td><td colspan="2">Percolates slowly, slope</td><td>Deep to water</td><td>Cutbanks cave, frost action</td><td>Percolates slowly, slope</td></tr>
<tr><td>Irrigation</td><td colspan="2">Percolates slowly, rooting depth, slope</td><td>Slope</td><td>Erodes easily, wetness</td><td>Percolates slowly, rooting depth, slope</td></tr>
<tr><td>Construction materials:</td><td>---</td><td>---</td><td>---</td><td>---</td><td></td></tr>
<tr><td>Roadfill</td><td colspan="2">Fair: wetness</td><td>Good</td><td colspan="2">Fair: wetness</td></tr>
</table>

As noted in **Table 2-2**, these soils were found to pose “moderate” and “severe” limitations for site use and development due to slow percolation rates, wetness, slopes, frost action potential, and stoniness.

Eleven site specific test borings were installed at the site to characterize subsurface soils conditions at the site. Water was not encountered in any of the test borings. Groundwater contours from the USGS (2009) indicate that groundwater beneath the site is at approximately elevation 60; therefore depth to groundwater at the site ranges between approximately 136 feet to 210 feet below the ground surface (bgs). Review of soil boring data for the site indicates the presence of a variety of soil textures and mixtures, with much of the upper layers of soils exhibiting silty sands with trace gravel. Intermittent layers of silty clay were also identified in four of the eleven test borings. Well drained SP or SM classified soils were identified in the lower layers of the majority of the borings, indicating adequate infiltration capacities will be present at the bottoms of the proposed drainage leaching pools. The complete boring logs for each of the on-site test borings, including characterization of the soils at greater depths, are included on the **Existing Conditions- Demolition Plan** (see **Attachment 1**).

2.2.2 Anticipated Impacts

As noted in **Section 2.1.2**, the majority of the site will be graded and a significant volume of the existing soils (a net 85,500 CY) will be cut from the site. There is significant depth to groundwater beneath the site (ranging from approximately 132 feet to 202 feet below the ground surface). Based on the wetland mapping for the area (see **Figure 2-6**), no natural wetlands exist on the property; however, fine textured soils in some locations on the property may restrict soil drainage and groundwater recharge leading to soil dampness. Fine textured soils that may restrict the percolation of water or promote frost action will be replaced as needed to ensure suitable drainage in stormwater recharge basins and to provide appropriate road beds for streets. Foundation drains and drywells can be provided to address soil wetness or drainage issues associated with the lots and future home construction. Since the proposed 46 homes will be connected to public sewers rather than individual on-site sanitary systems, the discharge and percolation of wastewater on-site will not occur and is not an issue.

Some of the steepest slopes on the property, particularly those existing on the southeast side along Searingtown Road and within the proposed natural buffer area, will remain undisturbed. However, considerable cut and grading is required along the proposed emergency access road so that suitable grades can be provided for emergency vehicle access. A retaining wall will be constructed parallel to each side of the emergency access road in this area to accommodate the necessary slope and anticipated grade change for the access road. Retaining walls are also necessary within the individual lots located on the southern and southeastern sides of the property and on the northwest side along the existing scenic easement. Notwithstanding the alteration and required stabilization of these steep slopes and the avoidance of other steeply sloping areas along the property perimeter, some smaller areas containing moderate to steep gradients will be disturbed as well. Grading plans, erosion and sedimentation controls, slope stabilization, proper engineering, reintegration of approximately 60,000 CY of fill, and compliance to any stormwater permit standards and SWPPP controls (if required) will ensure that the impacts from slope and soil disturbance are minimal. Soils will be reworked and redistributed to prepare the site for building, street and driveway construction, and landscaping.

The proposed drainage system, including its leaching pools and the proposed recharge basin, will collect and recharge stormwater on-site. In areas having restrictive fine-textured or loamy soils, excavations will be backfilled with coarse textured soils that are more suitable for recharging stormwater to the subsurface. Site soil conditions have been considered in the design of the project to ensure that soil limitations are addressed and potential impacts are mitigated.

Phase I and Limited Phase II Environmental Site Assessments (ESAs) were conducted at the subject property to investigate possible environmental or public health concerns relating to any past or present use, storage or disposal of hazardous materials on or near the project site. Phase I ESAs consider potential soil, groundwater and other types of site contamination that may need to be addressed to ensure a clean and healthy environment. They typically involve investigations into potential sources of site contamination such as above or below ground fuel storage tanks and the identification of site infrastructure such as stormwater leaching pools, sanitary systems and floor drains, which may act as conduits for pollutant delivery to soil and groundwater. The Phase I ESA report dated August 23, 2013 for 251 Searingtown Road indicates that property site inspections; interviews with the facility's maintenance director; review of historical aerial photographs, Sanborn Maps, and USGS topographic maps; and extensive government records and agency database reviews were performed as part of the investigation. The Phase I ESA report was completed in accordance with the standards set forth in the ASTM E 1527-05 and the USEPA AAI.

The Phase I ESA report identified the following recognized environmental conditions, *de minimus* conditions and historic environmental conditions in connection with the subject property, based on the methodology and limitations outlined in the report (**Appendix D-1**).

Two (2) recognized environmental conditions were noted on the subject property based on the site reconnaissance, interviews and regulatory agency records review.

1. It is unknown whether an on-site sanitary system was ever utilized on the subject property. In addition, the site should be checked for potential underground storage tanks that may have been present prior to 1976 as well as to determine if the gas pump/tank installation was ever completed. Ground Penetrating Radar (GPR) technology should be utilized in order to determine whether any of these structures presently exist. If located, the structures should be properly closed and samples should be collected to determine whether any subsurface contamination exists.

2. Several floor drains were observed in the basement boiler room [of the former building]. Although it is believed that these floor drains discharge to the local municipal sewer system, a dye test should be performed to ensure that this information is accurate. In addition, if determined to be necessary, samples should be collected to ensure that no previous or existing actions have resulted in subsurface contamination.

No *de minimus* condition was noted on the subject property based on the site reconnaissance, interviews and regulatory agency records review. No historic environmental conditions were

noted on the subject property based on the site reconnaissance, interviews and regulatory agency records review.

Observations of the potential presence of asbestos containing materials (ACM) in the former building were also performed. Based on observations made during the site reconnaissance, the following was noted:

1. Various suspect asbestos containing building materials were observed during the reconnaissance of the subject property including: plaster walls and ceilings, floor tile and mastic, insulation, window caulking and glazing, and roofing materials. However, if the building is to undergo major renovation or demolition, an Asbestos Survey should be completed in accordance with the New York State Department of Labor Industrial Code 56.

A Limited Phase II Environmental Site Assessment (ESA) was conducted which culminated in the preparation of an ESA report dated November 18, 2013 (see **Appendix D-2**). This report concluded as follows:

> This investigation was completed to address issues raised in the Phase I ESA prepared by Nelson, Pope & Voorhis, LLC. A sampling and analysis program was designed to determine if the on-site basement floor drain and stormwater catch basins had been impacted by prior uses of the subject property. The sampling and analysis plan consisted of soil/sediment quality testing using analytical test methods consistent with expected parameters and agency soil cleanup objectives. The following presents an evaluation of the results of this investigation.
>
> 1. The floor drain located in the basement boiler room was sampled and analyzed for the presence of volatile and semi-volatile organic compounds and metals. The analytical results revealed that several of the analyzed semi-volatile and metal constituents exhibited elevated concentrations. Several of the elevated concentrations exceeded the NYSDEC guidance values set forth in Part 375. As a result, the open bottom drain was remediated in accordance with an USEPA approved Work Plan, and an acceptable end point sample was confirmed. A USEPA closure letter is pending.
>
> 2. Documentation and confirmation of the following is recommended: a) closure of a reported 5,000 gallon underground fuel oil tank, b) connection/proper abandonment of the former sanitary system (if any), and c) confirmation of the connection of the sump pump reservoir to the sewer system. Freedom of Information record requests have been submitted to the Nassau County Health Department, Nassau County Fire Marshal, and Village of North Hills to determine if documentation exists. Further investigation may be warranted pending the findings of the agency records.

Following the initial ESA investigations:

1. Additional investigation was performed to confirm whether the former building was connected to the public sewer system (see **Appendix D-3**). These investigations indicated that the former building was not connected to the public sewer system. The sanitary waste pipe connection from the former house was cut and sealed approximately 100 feet from the former building. Additional investigation is planned to locate the on-site cesspools and properly abandon the system in accordance with NCHD and EPA requirements.

2. The contaminated sediment within the existing storm drains in the driveway and parking area was removed. Waste manifests documenting the proper disposal of this sediment are provided in **Appendix D-3**.

3. The on-site fuel oil tank was abandoned and removed (see **Appendix D-3**).

2.2.3 Proposed Mitigation

- Erosion-preventive measures during the construction process include: minimizing the time that bare soil is exposed to the elements, use of groundcovers (seeding and paving/construction), erection of project limiting fencing to prevent unnecessary clearing and ground disturbance, installation of silt fencing to prevent off-site deposition of sediment, wetting of dusty areas to limit windblown sediment from being transported off-site, incorporation of cut back into the site to the extent possible, use of rumble strips to prevent the tracking of dirt on to Searingtown Road, and use of inlet protection and drainage diversions to prevent siltation of drainage infrastructure.
- Foundation drains and waterproofing can help to address concerns associated with restrictive drainage around building footprints.
- The majority of deeper subsurface soils identified by the test hole locations demonstrate adequate leaching characteristics for proper functioning of drainage systems. If necessary, the base of proposed leaching pools will be over excavated and backfilled with coarse grained backfill as needed to ensure that drainage systems function properly.
- Site grading, reseeding, revegetation and construction of retaining walls will help to overcome slope constraints.
- Preservation of natural areas at the southeast end of the site and existing scenic easement at the north end of the site will limit impacts.
- The project team will determine the location of the existing sanitary system on-site and conduct bottom sediment sampling and remediation if necessary in accordance with NCHD standards and requirements, including backfilling excavations with clean fill.
- During grading operations, truck traffic to and from the site will be routed along the (LIE, LIE service roads) to the maximum extent practicable. The subject 30.43-acre property has ample space to fully accommodate construction vehicles during the construction process, thereby keeping work vehicles off public rights-of-way.

2.3 Geology

2.3.1 Existing Conditions

The bedrock underlying Long Island slopes downward to the south and east (at a rate of approximately 70 feet per mile), so that the overlying sediments also increase in thickness toward the south and east. Bedrock is approximately 700 feet below sea level (bsl) in the area of the site and is overlain by unconsolidated sediments of Cretaceous (older) and Quaternary (younger) age. The Cretaceous sediments contain Long Island's three major groundwater aquifers: the Lloyd, Magothy and Upper Glacial Aquifers.

The primary sediments beneath Long Island are the Raritan and Magothy Formations, which were deposited approximately 138 to 65 million years ago, as a result of sediment transport from highlands to the north of the island. The Raritan Formation consists of two members: the Lloyd Sand and the Raritan Clay. The Lloyd Sand (which contains the Lloyd aquifer) is separated from the overlying Magothy Formation by the low-permeability Raritan Clay. The upper altitude of the Lloyd Sand is approximately 450 feet below sea level in the vicinity of the site, indicating a thickness of 400 feet, and the top of the Raritan Clay is approximately 275 feet below sea level, indicating a thickness of 125 feet. The Magothy Formation (which contains the Magothy Aquifer) was deposited approximately 75 million years ago. At the site, the upper altitude of the Magothy Formation is approximately at 20 feet above sea level, indicating a thickness of about 140 feet.

Later, during the Quaternary age (approximately 65 to 2 million years ago) the Cretaceous deposits over much of Long Island were eroded by hydrologic processes such as stream formation. Sea level was low, and a large east-west valley formed north of Long Island in what is now Long Island Sound. Subsequently, most of the surface sediments now evident on Long Island were deposited during glacial advances of 2 million to 10,000 years ago. This period was marked by cycles of glacial advance and retreat producing morainal and glaciofluvial (outwash) sediments on top of the older Magothy sediments. These younger sediments include the Gardiners Clay and the Upper Glacial aquifer. Atop the Magothy Formation are recent Upper Glacial deposits (wherein the Upper Glacial Aquifer is found). The Upper Glacial forms the surface land features of Long Island.

The Ronkonkoma and Harbor Hills terminal moraines were deposited as part of these Upper Glacial deposits along the spine and the North Shore of Long Island as the glaciers retreated approximately 25,000 to 10,000 years ago. Low, flat outwash plains formed southward of these moraines as erosional processes carried sediments downslope and to the south. The sediments of these moraines typically consist of unsorted and unstratified clay, silt, sand, gravel, and boulders but can also include crudely to well-sorted, stratified glacial drift. The project site is located on the Harbor Hill Terminal Moraine on the top and side slopes of a hill composed of glacial till.

Surficial geologic glacial deposits such as moraines, knob and kettle topography, and outwash plains, as well as erosional features such as glacial drainageways are largely responsible for the

existing landforms and topographic expressions we see today. However, many of these features have been somewhat altered, over time, by human hands as part of construction activities. Most of the project site's topography and its overall landforms, including the property's side slopes and several small knolls appear to be relatively intact; however, some grading, specifically near the center of the site, around the location of the former St. Ignatius Retreat building, parking lots and other on-site structures, likely occurred to make the site more suitable for development.

2.3.2 Anticipated Impacts

The surface of glacial till deposits, topography, and geomorphology at the subject property will be disturbed to provide suitable land surface conditions for residential development, as well as the installation of foundations, drainage infrastructure and underground utilities. Current cut and fill estimates for the subdivision indicates the need for an estimated 85,000 CY of net cut. The existing surficial geology (i.e., glacial till) and geomorphology (i.e., top and side slopes of hills formed on the Harbor Hill Terminal Moraine) are common to Long Island and no unique geologic features or landforms were identified on or adjacent to the site.

The property is located within the North Hills Special Groundwater Protection Area (SGPA) (deep aquifer recharge area) and as such, has been classified by the NYSDEC as a "Critical Environmental Area" (CEA). The project was reviewed for consistency with the Long Island Regional Planning Board's "Long Island Special Groundwater Protection Area Plan" (1992) and it has been determined that the project does not conflict with its recommendations for the North Hills SGPA (See **Section 2.5.2**).

Depth to groundwater at the site ranges between approximately 136 feet to 210 feet below the ground surface (bgs) (132 to 202 feet bsg after site grading). While significant cut will be required in some areas and excavations will be required for the construction of foundations and installation of utilities, excavations will not be so deep as to intersect the groundwater table. The depth to groundwater from the regraded land surface will be sufficient for proper filtration of stormwater recharged by the leaching pools and the recharge basin proposed the on-site drainage system. The property will be sewered thereby eliminating a potential source of pollution and drainage will be controlled through temporary retention and discharge to minimize possible impacts to local groundwater quality and hydrogeologic conditions. Drainage system designs will be reviewed in detail (along with general engineering review) as part of the subdivision review process by the Village. The area is served by a public water purveyor (MLWD). The supply is routinely monitored and treated to ensure the delivery of potable water to MLWD customers.

The only Environmental Site Assessment (ESA) condition that had not been rectified at the time of VDEIS preparation was the identifying the location of the existing on-site sanitary system and abandoning it in accordance with Nassau County Department of Health and EPA requirements. All existing on-site buildings have been inspected as part of the Phase I ESA for the potential of potential recognized environmental conditions and none were identified. The contaminated

sediment previously found within existing storm drains in the driveway and parking area was removed and the on-site fuel oil tank has been removed (see **Appendix D-3**). Based on the foregoing information, there are no known or suspected impediments to the safe use of the site for residential purposes.

2.3.3 Proposed Mitigation

- No unique landforms or geologic conditions exist at the project site and significant adverse impacts to existing geologic or hydrogeologic conditions are not anticipated.
- All residences and the clubhouse will connect to the Nassau County sewer system. Wastewater from the development will be conveyed to the County's Bay Park Sewage Treatment Plant for treatment and disposal. Connection to the County sewer system will help protect the underlying groundwater/hydrogeologic resources and the North Hills SGPA.
- Prior to demolition of the remaining accessory buildings, an asbestos survey will be conducted to determine if asbestos may be present in any of the structures to be removed. Any known or suspected asbestos containing materials (ACM) that are identified will be removed in accordance with the NYS Department of Labor Industrial Code, Part 56.
- Stormwater generated from proposed streets, driveways, and building roofs will be captured and recharged on-site through a system of leaching pools, roof drains and the subdivision's stormwater recharge basin. Stormwater systems will be designed in accordance with state and local specifications.
- Prior to the development, the existing sanitary system on-site will be located and removed or abandoned in accordance with NCHD and EPA standards, including sampling of bottom sediments and remediation (if required).
- Phase I and Limited Phase II ESAs were completed at the project site. An underground fuel storage tank and contaminated sediment found in the former building's floor drains and the parking lot and driveway storm drains have been removed (**Appendix D-3**).

2.4 Water Resources

2.4.1 Existing Conditions

<u>Drainage</u>
Precipitation falling on the subdivision property is either recharged directly into the ground, evaporated in place, absorbed by plant life, captured by stormwater infrastructure or runs off to flatter and/or more pervious ground where it infiltrates the soil. Stormwater generated on the subject site that is not directly recharged, evaporated or absorbed and transpired by plant life, would flow toward lower elevations, which, in general, is outward from the interior of the site toward the property's outer perimeter.

The steepest slopes are present along the site's eastern and northern property boundaries, in a few small isolated locations along the southern property boundary, at the south side of the driveway turnaround, and around the stormwater recharge basin. Topography is relatively

consistent and slopes are, for the most part unidirectional on the eastern and southern sides of the property where they dip to the east and south, respectively. In these areas, runoff patterns are very simple and direct. However, areas containing more irregular or "hummocky" topography, such as is prevalent on the north side of the property, have more complex runoff patterns. Under intense and/or prolonged precipitation, as the soil reaches its capacity to absorb excess water, overland runoff will occur down slopes, regardless of the presence of impervious surfaces. Runoff on the north side of the property, where several small knolls exist, would be multidirectional (360º) toward both perimeter and interior sections of the site.

Moderate and steeply sloping topography and areas containing impervious groundcover promote stormwater runoff. Areas containing impervious surfaces, including the site access road and remaining paved parking areas, are located near the center of the property and to the northeast, south of the recharge basin. Several stormwater catch basins and drainage inlets have been installed in the parking lots, as well as along the existing site access road, where paved surfaces are their steepest. The drainage structures capture stormwater from these impervious surfaces, before it reaches Searingtown Road and discharges it to the public storm sewer. Additionally, a 15 foot wide drainage easement with eleven leaching pools exists along the southern perimeter of the property to collect stormwater from the existing open lawn area that slopes toward the existing Estates I Condominium located adjacent o the south.

Surface Waters and Wetlands

A site inspection and review of New York State Department of Environmental Conservation (NYSDEC) regulated wetlands and National Wetlands Inventory maps revealed two water features on-site and two that are relatively nearby. A shallow, approximately 90-foot by 20-foot (1,800 square foot) reflecting pool is located on the west side of the property in a flat low-lying part of the site. The reflecting pool, although currently containing a small volume of water, is not a natural feature, is not a designated freshwater wetland, and will be removed as part of the project. This feature is expected to have an impervious bottom and sides. A second on-site water feature is the stormwater recharge basin located at the northeast end of the project site, adjacent to Searingtown Road. This feature is not shown as a mapped NYSDEC regulated wetland (**Figure 2-5**), but is, however, mapped and described by the National Wetlands Inventory (**Figure 2-6**). The National Wetland Inventory classifies the recharge basin as a palustrine, permanently flooded, and excavated waterbody with an unconsolidated bottom.

The two closest off-site water features are what appear to be a stormwater recharge basin associated with a single-family residential subdivision located approximately 250 feet to the west of the subject property, and a man-made or man-modified reflecting pond located approximately 500 feet southeast of the site at Christopher Morley County Park. Neither of these features is classified as NYSDEC regulated freshwater wetlands but are mapped and classified by the National Wetlands Inventory as palustrine, permanently flooded, diked or impounded water features with unconsolidated bottoms. The closest NYSDEC jurisdiction freshwater wetland is located approximately 4,600 feet to the southwest of the project site.

The project site is located within an "upland" area with elevations ranging between 196 feet and 270 feet above msl. There are no natural or significant surface water bodies on or near the property that could overflow and cause site flooding and the property is not within any Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas or the 500-year-flood zone.

Groundwater

The subject property is located within the North Hills Special Groundwater Protection Area (SGPA) which is considered a critical environmental area (CEA) by the NYSDEC. Water table contours from the USGS (2009) indicate that the groundwater table in the area of the site is encountered at an elevation of approximately 60 feet above msl. The topographic elevation across the site ranges from 196 feet to 270 feet above msl, indicating a depth to groundwater ranging from approximately 136 feet to 210 feet below the site's ground surface. The project site is located on the north side of Long Island's regional east-west groundwater divide indicating that groundwater flows toward and eventually discharges to the Long Island Sound and its harbors, bays, and tidal ponds and creeks. Water table contours from the USGS (2009) suggest that groundwater flow beneath the site is generally from east to west, before trending in a northwesterly direction toward Manhasset Bay and the Long Island Sound. Water table elevations and contours are illustrated in **Figure 2-7**.

Water Balance and Groundwater Quality

The groundwater budget for an area is expressed in the hydrologic budget equation, which states that recharge equals precipitation minus evapotranspiration plus overland runoff. This indicates that not all rain falling on the land is recharged. Loss in recharge is represented by the sum of evapotranspiration and overland runoff. The equation for this concept is expressed as follows:

$$\mathbf{R = P - (E + Q)}$$

where: **R** = recharge
P = precipitation
E = evapotranspiration
Q = overland runoff

Nelson, Pope & Voorhis, LLC (NP&V) has utilized 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, referred to as "**SONIR**" (**S**imulation **O**f **N**itrogen **I**n **R**echarge), utilizes a mass-balance approach to determine the nitrogen concentration in groundwater recharge. Critical in the determination of nitrogen concentration is a detailed analysis of the various components of the hydrologic water budget, including recharge, precipitation, evapotranspiration and overland runoff. The basis for this method of nitrogen budget analysis is well established, and 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 (BURBS - A Simulation of the Nitrogen Impact of Residential Development on Groundwater). The SONIR model includes four sheets of computations: 1) Data Input Field; 2) Site Recharge Computations; 3) Site Nitrogen Budget; and 4) Final Computations. There are

a number of variables, values and assumptions concerning hydrologic principles, which are discussed in detail in the user manual developed for the SONIR Model and provided in **Appendix E-1**.

The model was run to obtain the existing water budget and nitrogen concentration in recharge. The run was based on current site conditions and land use coverages (see **Table 1-1**). The site currently has a recharge of 16.55 million gallons per year (MGY). The results of this analysis are presented in **Appendix E-2**.

A detailed assessment of the existing concentration of nitrogen in site-generated recharge can be made by calculating the total nitrogen input to groundwater, diluted by the total volume of recharge water. The basis for this simulation was established in the Long Island Regional Planning Board's (LIRPB) "208 Study" and further developed by the Cornell University, Water Resources Program. As was discussed above, SONIR was utilized to determine the present nitrogen concentration exiting the site; the results are presented in **Table 1-1** and in **Appendix E-2**. The estimated nitrogen concentration in recharge generated on the vacant unused site is 0.01 milligrams per liter (mg/l).

The October 7, 2014 correspondence from MLWD and data from the district's 2013 annual Water Quality Report indicate that the public water supply in the area contains trace volatile organic compound (VOC) contamination but the water is treated by aeration or carbon filtration prior to entry into the distribution system to ensure its potability. The MLWD also recently completed the construction of a nitrate removal plant at its Searingtown plant.

2.4.2 Anticipated Impacts

<u>Drainage</u>
There are no natural wetlands or surface water bodies on-site or within at least 1,000 feet of the property (see **Figure 2-5**). The only existing surface water features on-site and in the area are man-made stormwater recharge basins serving area streets, the County park, and other area developments. The subdivision of the property and construction of 46 homes and supporting infrastructure is not expected to impact natural surface waters or wetlands in the area, due to their significant distance from the project site and presence of considerable intervening development between such features.

Development will result in the installation of impervious surfaces consisting of buildings and paved parking areas, which will significantly increase the volume of stormwater generated on-site. All stormwater generated by these surfaces will be captured and recharged on-site into the local groundwater system through a series of interconnected leaching pools, a new recharge basin, and roof gutter/leader/drywell systems, and by direct recharge in areas with pervious ground cover. The efficiency of stormwater control and recharge will be enhanced through site grading, street curbing, and placement of granular fill material around the proposed leaching pools if

required to promote leaching. Drainage systems will be designed in accordance with the requirements of the Village and Nassau County Department of Public Works (NCDPW).

The proposed drainage system is designed to meet the minimum storage requirements of a 5-inch rainstorm. The proposed drainage system is designed to accommodate a total of 175,051 CF (see **Utility Plan, Attachment 1**). A waiver from the NCDPW drainage requirements to collect an eight-inch rainfall will be requested, although the drainage design for the individual lots within the watershed of the Nassau County roadways are designed for an eight-inch rainfall event. The proposed project therefore provides the engineering and infrastructure necessary to contain stormwater from a 5-inch rainfall on-site, with additional infiltration of stormwater provided through the bottoms of the proposed leaching pools systems. The drainage system design will prevent stormwater from running off-site to adjacent streets and private properties.

Surface Water and Wetlands

There are no natural surface waters or wetlands on or immediately adjacent to the project site. Stormwater generated from impervious surfaces will be retained and recharged on-site. The drainage system will be designed consistent with standard engineering principles and practices and to the satisfaction of NCDPW and the Village. Depth to groundwater is sufficient to ensure suitable stormwater recharge. Soil conditions will be considered during leaching pool installation and recharge basin construction and any materials found to be unsuitable will be removed and replaced with clean coarse textured fill. Wastewater generated on-site will be conveyed to the Bay Park STP for treatment and disposal. No impact to surface water or wetlands is anticipated.

Groundwater

The subject property is located within the North Hills SGPA deep recharge critical environmental area. Depth to groundwater is estimated to be 132 feet below proposed grade and a maximum of approximately 202 feet below proposed grade. This considerable depth to groundwater will help to provide significant filtration, diffusion, and attenuation of some pollutants. The MLWD supply contains trace VOCs, therefore, the water is treated to ensure the waters conformance to established water quality standards and thus its potability. The MLWD also recently constructed a nitrate removal system at its Searingtown Road plant to address nitrate in groundwater.

The proposed subdivision will be served by public sewers. Wastewater from the subdivision will be conveyed to the Bay Park STP where it will be treated and released pursuant to the plant's discharge permit. Connection to the County sewer system will preclude the need for individual on-site sanitary systems and any direct discharge of sewage to the North Hills SGPA and the underlying aquifer. Stormwater from the development will be collected and recharged on-site.

Section 2.5.2 provides an assessment of the proposed project's conformance to the recommendations of the Long island Regional Planning Board's 1992 Long Island Special Groundwater Protection Area Plan.

Water Balance and Groundwater Quality

Construction activities will occur over an estimated 3-year period. Groundwater impacts could potentially occur during construction from rain falling on exposed building materials and construction equipment and subsequent leaching into the ground; however, building materials are anticipated to be inert and therefore are not expected to have a potential to impact groundwater quality. Equipment stored on-site will be properly maintained and will be operated by experienced and reputable contractors over the construction period. No significant or long-term construction impacts to groundwater quality are anticipated. Since the future use of the site is residential and since gas will be used for heating, large quantities of hazardous materials are not anticipated to be stored on-site.

For water use and waste generation analysis purposes, it is anticipated that approximately 14,700 gpd of wastewater will be generated from the proposed residences and clubhouse, with ultimate treatment and disposal at the Bay Park STP. The nearest sewer main is 8 inches in diameter and is installed along the west side of Searingtown Road along the frontage of the subject property. Correspondence with Joseph Davenport, P.E., Chief Sanitary Engineer with the Nassau County Department of Public Works, indicates that the Bay Park STP "…has sufficient treatment capacity for the anticipated flows" to be generated by the project (see **Appendix A**). The future Homeowners Association will be responsible for maintaining the streets and sanitary sewers within the development, as they will be held in private ownership. No groundwater resource impacts would occur from the discharge of wastewater from the subdivision.

Using the site coverage quantities established in **Table 1-1,** the SONIR model was run to determine the water budget for future site conditions. Under the proposed development, the project site will recharge a total of 22.95 MGY resulting in an increase of 6.40 MGY in comparison to existing conditions. The results of this analysis are presented in **Appendix E-3**. Nearly all of the recharge water generated on site will consist of stormwater; however, based upon information presented in the NURP Study (see **Section 2.5.1 and 2.5.2**), this volume is not anticipated to contain significant concentrations of pollutants. The project will use recommended recharge techniques involving subsurface leaching pools and a surface stormwater recharge basin that are designed in conformance with current engineering practices and conform to state and local standards. The NURP Study found that any organic chemicals that may be present in stormwater generally volatilize on surfaces and inorganic chemicals and bacteriological indicators are removed as recharge infiltrates through soil. As noted, the depth to groundwater ranges from 132 to 202 below proposed grade, providing a substantial unsaturated zone for leaching and attenuation. Therefore, the proposed project is in conformance with the applicable recommendations of the NURP Study and the NYSDEC in regard to the proposed stormwater recharge system. As previously noted, a SWPPP and NYSDEC SPDES General Permit may be required, which will include further examination of drainage, and erosion control measures.

Based on the site quantities presented in **Table 1-1**, the SONIR computer model results for the proposed project (**Appendix E-3**) indicate that the concentration of nitrogen will increase from 0.01 mg/l on the currently vacant/undeveloped and unfertilized site to 1.56 mg/l upon completion

of the project. Since the project will be sewered, the primary contribution to the increase in nitrate loading will be from anticipated fertilization of landscaping. For calculation purposes, it is conservatively assumed that 18.90 acres, which will be fertilized at the typical rate of 2.30 pounds of nitrogen per 1,000 SF, and irrigated provided at a rate of 16.0 inches annually. The SONIR model predicts a concentration of nitrogen in recharge of 1.56 mg/l, which is well within the 10 mg/l NYS standard for nitrogen in drinking water.

2.4.3 Proposed Mitigation

- The increase in recharge volume resulting from the additional impermeable surfaces is not expected to cause a significant adverse impact on the water table (e.g., mounding or flooding) due to the significant unsaturated depth underlying the site. As a result, no mitigation is required or proposed.

- Connection to the NC sewer system will preclude the need for wastewater discharge on-site.

- The drainage system for the project will be designed, sited and installed in accordance with state and local requirements and will be subject to review and approval by the Village Engineer. A SWPPP will be prepared and a SPDES General Permit will be sought.

- The SONIR computer model results for the proposed project indicate that the concentration of nitrogen in recharge is anticipated to increase from 0.01 mg/l at the currently undeveloped site to 1.56 mg/l which is far below the maximum 10 mg/l standard for drinking water. The discharge of wastewater to the available NC sewerage system rather than through individual on-site septic systems is an integral factor in this project achieving such a low recharge nitrate concentration.

2.5 Groundwater Management Plans

2.5.1 Existing Conditions

<u>Long Island Comprehensive Waste Treatment Management Plan</u>
In 1978, the LIRPB, in conjunction with other interested agencies, prepared a groundwater resource management plan for Long Island's sole source aquifer system. The plan was prepared in accordance with Section 208 of the 1972 Federal Water Pollution Control Act Amendment ("208 Study") and its purpose was to investigate waste disposal options and best management practices for ground and surface water protection. The study involved the delineation of Hydrogeologic Zones (later called "Groundwater Management Zones" in other studies) which would provide the foundation for resource management plans based on groundwater quality and flow patterns.

The subject site is located in Groundwater Management Zone I. Zone I is an area that provides deep recharge that replenishes the regional groundwater system and serves as the source of public water for area communities. The 208 Study recommends that development in Zone I utilize public sewers, if available, or provide advanced on-site wastewater collection and treatment where the existing residential density is 9 or more persons per acre. In addition, the 208 Study recommends: 1) that stormwater runoff be controlled on-site by preventing sediments, nutrients, metals, organic chemicals and bacteria from reaching surface and groundwaters; 2) that on-site disposal systems be properly maintained; and, 3) fertilizer use be minimized on lawn areas.

Nationwide Urban Runoff Program

In 1982, the LIRPB prepared the Long Island Segment of the Nationwide Urban Runoff Program (NURP Study). This program attempted to address, among other things, the following:

- the actual proportion of the total pollutant load that can be attributed to stormwater runoff, given the presence of other point and non-point sources and conditions within the receiving waters;

The purpose of the NURP Study, carried out by the United States Geological Survey (USGS), was to determine:

- the source, type, quantity, and fate of pollutants in stormwater runoff routed to recharge basins, and
- the extent to which these pollutants are, or are not attenuated as they percolate through the unsaturated zone.

In order to accomplish this, five recharge basins, located in areas with distinct land uses, were selected for intensive monitoring during and immediately following storm events. The five recharge basins, three in Nassau and two in Suffolk, were chosen based on the type of land use the recharge basin served. The following is a list of the locations and the types of land uses served by each drainage area.

Site Location	**Land Use**
Centereach	Strip Commercial
Huntington	Shopping Mall, Parking Lot
Laurel Hollow	Low Density Residential (1 acre zoning)
Plainview	Major Highway
Syosset	Medium Density Residential (1/4 acre zoning)

Based on the sampling program, the NURP Study reached the following relevant findings and conclusions.

Finding: In the majority of storm events sampled, the ratio of the total volume of runoff to the volume of precipitation falling on impervious areas was less than one.

Conclusion: Most of the runoff into recharge basins is derived from rain that falls directly on impervious surfaces, except during storms of high intensity, high volume and/or long duration.

Finding: Stormwater runoff concentrations of most of the inorganic chemical constituents for which analyses were performed were generally low. In most cases, they fell within the permissible ranges for potable water; however, there were two notable exceptions.

- median lead concentrations in stormwater runoff samples collected at the recharge basin draining a major highway (Plainview) consistently exceeded the drinking water standards;
- chloride concentrations in stormwater runoff samples generally increase two orders of magnitude during the winter months. [1]

Conclusion: In general, with the exception of lead and chloride, the concentrations of inorganic chemicals measured in stormwater runoff do not have the potential to adversely affect groundwater quality.

Finding: The number of coliform and fecal streptococcal indicator bacteria in stormwater range from 10^0 MPN [Most Probable Number] to 10^{10} MPN per acre per inch of precipitation.

Conclusion: Coliform and fecal streptococcal indicator bacteria are removed from stormwater as it infiltrates through the soil.

Long Island Comprehensive Special Groundwater Protection Area Plan

The subject site lies within the North Hills Special Groundwater Protection Area (**Figure 2-8**). The 1983 NYSDEC plan, "NYS Groundwater Management Program", delineated areas of special concern (i.e., "Special Groundwater Protection Areas" or "SGPAs") for the primary purpose of protecting Long Island's groundwater resources. SGPAs are deep groundwater recharge areas that overly Long Island's sole source aquifer and supply Nassau and Suffolk county residents with drinking water. In order to continue to provide Long Island's current and future populations with a potable supply of drinking water, it was determined to be imperative that these critical resource areas be protected. The purpose of the program, therefore, was to develop groundwater management recommendations for these areas of particular importance and sensitivity, in order to assist public officials, developers and Long Island residents concerned with the protection of ground and surface waters, to maintain this critical resource. The major objectives of the program are to:

[1] Lead associated with runoff from highways during the late 70s and early 80s (just before the Management Program was commissioned) was likely to have been largely attributable to leaded gasoline emissions and lead's persistence and immobility in the environment; while high chloride concentrations during winter months would have likely been due to road salting. Lead was phased out as a constituent of gasoline many years ago and many municipalities and state and county agencies have and continue to make strides toward addressing environmental issues associated with snow removal and road deicing.

- maximize the recharge of high quality groundwater to Long Island's aquifers; and
- minimize the pollutant loads from existing and future land use activities within the defined areas.

Initially, eight areas were designated as SGPAs, though no formal study or plan existed to outline viable strategies for protecting ground and surface waters as envisioned by the NYS Groundwater Management Program. In 1987, the NYS legislature enacted Article 55 of the NYS Environmental Conservation Law (ECL), known as the "Sole Source Aquifer Protection Act", which required and funded a study of these SGPAs.

In 1992, the Long Island Regional Planning Board (LIRPB) released, "The Long Island Comprehensive Special Groundwater Protection Area Plan" which contained recommendations for the North Hills SGPA, including the project site. The Plan identifies the project site as an institutional land use and recommends the continuation of this type of land use. The drainage systems on the individual lots within the watershed contributing area of the NCDPW drainage systems within the adjacent roadways has been designed for an eight-inch rainfall event

The Plan's recommendations are quite general in scope but include policies for ensuring a sustainable supply of potable groundwater where groundwater quality is good and conducting remediation where groundwater quality has been compromised. The Plan indicates that, in order to reduce contaminant loads, the density of future development must be reduced below that currently permitted through changes in zoning (for both sewered and unsewered areas), more effective site plan review needs to be performed, and the acquisition or other means of preservation of critical lands should be pursued. Existing point or non-point sources should be minimized or eliminated and the establishment of new activities already associated with groundwater problems should be prevented. In addition, extensions of public sanitary sewers into previously unsewered areas is to be discouraged, as such facilities would tend to increase density, with consequent impacts on groundwater quality and quantity.

<u>SGPAs as Critical Environmental Areas</u>
6NYCRR Part 617.14(g) of SEQRA authorizes state and local agencies to designate defined geographic areas within their jurisdictions as "Critical Environmental Areas" (CEAs) when they possess *"exceptional or unique environmental characteristics."* To be designated in this manner, an area must have 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 which may be adversely affected by any change.

Article 55, Section 55-0117(6) of the NYS ECL (under which the SGPA Plan was authorized), indicates that all SGPA's would be designated "Critical Environmental Areas" ("CEA's"), so that any project proposed within such an area receives added scrutiny in terms of the potential for

impacts to the resources so identified. Moreover, DEISs prepared for such projects are to include a discussion of project conformance to the SGPA Plan. This DEIS provides the required level of analysis to evaluate potential impacts to the North hills SGPA CEA in **Section 2.5.2**.

It should be noted that while the subject property is located within the North Hills SGPA, it is outside of the Village's "R-GP Groundwater Protection Overlay District," which consists of all real property north of the Long Island Expressway that is in the Village's R-1 Zoning District.

Nassau County Public Health Ordinance

Article X of the Nassau County Public Health Ordinance (NCPOH) requires that residential development within an SGPA be developed at a density not to exceed one dwelling unit per acre, unless connected to a public sewer system. Article XI, entitled *Toxic and Hazardous Materials Storage, Handling and Control,* regulates the storage of toxic or hazardous materials (including petroleum products).

NYSDEC Water Caps

As indicated in its on-going Pumpage Report for 2013, the Manhasset-Lakeville Water District (MLWD) was assigned a One-Year Maximum Pumpage Cap by the NYSDEC of 2,851 million gallons, and a Five-Year Running Cap of 2,600 million gallons **(**see MLWD correspondence in **Appendix A)**. During 2013 the District pumped a total of 2,540 million gallons, or 311 million gallons less than the one-year maximum. The current five-year (running) pumpage averaged of the District is 2,442 million gallons, which is 158 million gallons below its corresponding Five-Year Running Cap. As a result, the District is in compliance with the NYSDEC pumpage restrictions.

MLWD administers a water conservation program that limits lawn watering to every other day, prohibits the use of water for once-through cooling, bans the washing of pavement, and promotes the use of low flow fixtures within homes.

2.5.2 Anticipated Impacts

Long Island Comprehensive Waste Treatment Management Plan

The proposed project will be in compliance with the general recommendations of the 208 Study. The facility will utilize public sewers for sanitary waste disposal and all stormwater runoff will be retained on-site through the installation of leaching pools and a recharge basin which will assist in recharge of stormwater runoff. This is expected to minimize the potential for impact to underlying groundwater resources with regard to dissolved nitrogen.

Nationwide Urban Runoff Program

Based upon information presented in the NURP Study, the volume of stormwater recharge anticipated to be generated by the proposed project is not anticipated to contain significant concentrations of pollutants, as the study determined that stormwater from residential sites does not generally contain such types or volumes of substances.

The depth to water underlying the site ranges from approximately 136 to 210 feet (approximately 132 to 202 after grading), which will provide a large unsaturated zone through which recharge can percolate and attenuate certain contaminants by such processes as volatilization on the ground surface or at shallow depths, plant uptake in the root zone, chemical and microbiological actions, soil absorption, filtration and diffusion, prior to reaching the water table, and dilution once entering groundwater. The proposed project is in conformance with the applicable recommendations of the NURP Study in regard to the proposed stormwater recharge system.

North Hills Special Groundwater Protection Area Plan

The following discussion of the proposed project's conformance with the recommendations of the SGPA Plan also satisfies the requirement of ECL Section 55-0117(6) in regard to the site's location within and impacts upon a designated CEA. The proposed project replaces the former three-story, 87-room, 20,194 SF St. Ignatius Jesuit Retreat Center and its various accessory structures with a moderate density 46-lot single-family residential subdivision.

The land use plan for the North Hills SGPA provided in the 1992 SGPA Plan shows the subject property as an institutional use which differs from the recommended land use of the Village pursuant to its Official Zoning Map and Zoning Code, and the County, pursuant to its Comprehensive Plan. It appears the institutional land use recommendation of the SGPA Plan may be due more to the fact that an institutional land use had existed on the site at the time the plan was prepared than simply for groundwater protection purposes. Permissible institutional land uses that are permitted in the Village's R-3 zoning district (i.e., "government facilities") can be very large, and depending on scale, could have just as much if not more impact on groundwater as a residential subdivision, especially when considering the fact that the area is sewered and no on-site wastewater loading would result in either scenario.

The additional general recommendations of the SGPA Plan refer largely to preservation of various large estate properties and golf courses in the vicinity as a means of limiting development that might otherwise adversely affect the SGPA. The specific recommendations of the Plan for the North Hills SGPA are shown in italics below and are followed by a brief statement of the Proposed Project's conformance to each recommendation.

- *Nassau County should acquire the 500-acre Whitney Estate (Greentree) for open space preservation.*

  This recommendation seeks purchase of the Whitney Estate for open space preservation, and does not apply to the proposed property or project.

- *The villages should preserve the remaining golf courses. The two municipal golf courses should remain in recreational use. Inasmuch as the groundwater impacts associated with well managed golf courses are likely to be less damaging to groundwater quantity and quality than those associated with various types of housing or with non-residential development, the two villages with private courses should make every effort to prevent their conversion to other uses. Large lot zoning, tax abatement, tax deferral, acquisition of development rights, or even purchase and*

lease back should be considered, if necessary, to facilitate preservation of the three private courses.

This recommendation seeks preservation of the golf courses in the SGPA as a mechanism to perpetuate these uses and limit development, and thereby minimize the potential for adverse impacts to groundwater quality and quantity resulting from their development; therefore, this recommendation does not apply to the proposed project.

- *In the event that Nassau County is unable to acquire the Whitney Estate, the development of Greentree and the adjacent estates should be planned as part of a single entity that maximizes watershed protection, preserves the open character of the area and provides land for future well sites. The permissible number of dwelling units for the three contiguous estates should be based upon the five acre per unit zoning rather than the current two and one half acre zoning of the Manhasset (Greentree) portion of the area. With good site planning, it should be possible to preserve close to three-fourths of the open space in this area. Units should be clustered on one acre parcels located in the northerly portions of the properties.*

  This recommendation seeks reduced residential yield for the Whitney and adjacent estate properties if these sites are to be developed, so that groundwater protection, open space preservation and provision for water supply wells can be maximized. This recommendation does not apply to the subject property and therefore, not apply to the Proposed Project.

- *The Village of Lake Success should up zone the private Fresh Meadow golf course, now partially in the half acre and partially in one acre category, to five acres per dwelling unit. It should also place the Great Neck School District property in the same category in order to insure that any development resulting from the future sale or conversion of these properties will be compatible with the goals of water resource preservation. Recreation lands owned by the school district should be kept as open space if the school facility is ever declared surplus.*

  This recommendation does not apply to the Proposed Project as the subject property is not within the Village of Lake Success.

- *The Village of North Hills should up zone the two remaining private golf courses and the adjacent estates to five acres per dwelling unit so as to conform with the Town of North Hempstead zoning of the Whitney property and thus assure the retention or environmentally sensitive development of the last significant block of open space land in western Nassau County.*

  This recommendation seeks reduced yield by "upzoning" the two golf courses in the Village of North Hills, to ensure that open space retention and groundwater protection would occur in case these sites are developed. This recommendation does not apply to the proposed project.

- *The Village of North Hills should encourage the phase out of the remaining non-conforming industrial use and should preclude the introduction of new industrial or potentially contaminating commercial uses.*

  As the subject site is not presently in industrial use, and is not proposed for such use, this recommendation does not apply.

NYSDEC Water Caps

As the Manhasset-Lakeville Water District is currently in compliance with its NYSDEC-imposed pumpage caps, and the proposed project is not anticipated to significantly reduce the district's ability to serve the site or its other customers, no impact on the district's ability to continue to meet its pumpage caps is anticipated.

Nassau County Public Health Ordinance

As a public sewer system will be utilized and the site would not generate industrial wastewater, the proposed project would not be subject to the development restrictions of NCPHO Article X. With respect to Article XI of the NCPHO, the proposed project will not mix, package or generate any toxic/hazardous industrial chemicals or solvents; therefore no discharge permit is needed other than sanitary effluent connection to the sewage collection and disposal district. Likewise, no Article XI permit is needed from NCHD for drum or tank storage as the proposed project will utilize natural gas for heating via connection to an existing main located in the right-of-way of Searingtown Road. The underground storage tank that previously existed on-site has been removed in accordance with NCHD regulations.

2.5.3 Proposed Mitigation

- Based upon information presented in the NURP Study, the stormwater recharge anticipated to be generated by the proposed project is not anticipated to contain significant concentrations of pollutants. Stormwater facilities will be constructed in accordance with state and local regulations and will be required to meet the satisfaction of NCDPW and the Village. A SWPPP will be prepared and a SPDES General Permit will be sought.

- The subject site's presence in the North Hills SGPA (also a CEA under the NYS ECL) requires that an analysis of the project's conformance with the recommendations of that plan be prepared. The analysis indicates that the proposed project conforms to the general and specific recommendations of that plan, with the exception of the recommended use of the property for institutional purposes. The proposed land uses is consistent with the Village's official Zoning Map and Zoning Code and the NC Comprehensive Plan and since the property is sewered is not expected to have a significant impact on the environment.

- The proposed project will be in compliance with the general recommendations of the 208 Study: the project will utilize public sewers for wastewater disposal; all stormwater runoff will be retained on-site through the installation of leaching pools, drywells, and an on-site recharge basin.

- As part of previous demolition and site preparation fuel storage tanks have been removed and sediment associated with on-site stormwater leaching pools have been removed. Additionally, the proposed residential development will use natural gas for heating purposes and no toxic or hazardous materials are anticipated to be stored on-site.

2.6 Ecological Resources

2.6.1 Existing Conditions

Vegetation

The 30.43-acre subject property is the site of the former St. Ignatius Jesuit Retreat Center. The site is located west of Searingtown Road, across from Christopher Morley County Park and is surrounded on the north, south and west by residential land. Site inspections were performed in October 2013, May 16, 2015, June 3, 2015, June 16, 2015 and July 10, 2015 to identify flora and fauna present on the site. No freshwater wetlands are located on or in the vicinity of the subject site, however, a recharge basin is located in the northeast corner of the site. **Figure 2-9** depicts the various habitats identified on the subject property.

The habitat types were defined according to a classification system developed by the NYSDEC **(Edinger, 2002).** Habitats present on the site include: coastal oak-hickory forest, and landscaped (Mowed Lawn with Trees). **Table 2-3** identifies the acreage of each habitat on the subject site. The limit of each habitat was determined by a combination of aerial photography and field inspections by NP&V.

Table 2-3
EXISTING SITE HABITATS

Habitat Type	Area (acres)	Percent
Coastal Oak Hickory (Remnant)	±11.33	37.23%
Successional Southern Hardwood	±5.38	17.68%
Landscaped (Mowed Lawn with Trees)	±10.62	34.90%
Recharge Basin	±0.48	1.58%
Impervious	±2.16	7.10%
Unvegetated	±0.46	1.51%
TOTAL	**30.43**	**100.00%**

The NYSDEC Freshwater Wetlands Map and National Wetland Inventory Map were reviewed (see **Figures 2-5** and **2-6**) to determine the presence of wetlands on or in the immediate vicinity of the subject site. No State listed wetlands were identified within the site; National wetlands associated with the recharge basin are illustrated on the National Wetlands Inventory Map (**Figure 2-6**). The nearest NYSDEC freshwater wetland is identified as number SC-12 and is located approximately 4,900 feet to the southwest of the site. The on-site recharge basin is illustrated on the National Wetland Inventory Map and is identified as "PUBHx" or "Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated."

The majority of the site contains Coastal Oak-Hickory forest, with a recharge basin located in the northeast portion of the property. A portion of the site which was previously cleared can now be

best described as Successional Southern Hardwood forest. Extensive landscaped areas occur surrounding the area of the former building and the remainder of the site.

Coastal Oak Hickory forest is defined by **Edinger** (**2002**) as "*a hardwood forest with oaks (Quercus spp.) and hickories (Carya spp.) codominant that occurs in dry well-drained, loamy sand of knolls, upper slopes, or south-facing slopes of glacial moraines of the Atlantic Coastal Plain. The forest is usually codominated by two or more species of oaks, usually white oak (Q. alba), black oak (Quercus velutina) and chestnut oak (Q. montana). Scarlet oak (Quercus coccinea) is also a common associate. Mixed with the oaks, usually at moderate densities, are one or more of the following hickories: pignut (Carya glabra), mockernut (C. tomentosa), and sweet pignut (C. ovalis). These hickories can range from nearly pure stands to as little as about 25% cover. There is typically a subcanopy stratum of small trees and tall shrubs including flowering dogwood (Cornus florida) and highbush blueberry (Vaccinium corymbosum). The shrublayer and groundlayer flora may be diverse. Common low shrubs include maple-leaf viburnum (Viburnum acerifolium), blueberries (Vaccinium angustifolium, V. pallidum) and huckleberry (Gaylussacia baccata). Characteristic groundlayer herbs are Swan's sedge (Carex swanii), panic grass (Panicum dichotomum), poverty grass (Danthonia spicata), cow-wheat (Melampyrum lineare), spotted wintergreen (Chimaphila maculata), rattlesnake weed (Hieracium venosum), white wood aster (Aster divaricatus), false Solomon's seal (Smilacina racemosa), Pennsylvania sedge (Carex pensylvanica), and white goldenrod (Solidago bicolor). Characteristic animals include eastern towhee (Pipilo erythrophthalamus), vireos (Vireo spp.), woodpeckers, and white-tailed deer (Odocoileus virginianus). Two or more topoedaphic variants are possible."* This habitat occupies the majority of the site (±11.33 acres) and is generally poor in quality as the habitat is impacted by disturbance associated with the former use of the site. As a result, the area delineated as containing this habitat represents a remnant of the original habitat, and does not represent a rare occurrence. Disturbance of this habitat associated with dumping of landscaping debris and selective landscaping interspersed with natural vegetation significantly reduce the quality of on-site natural habitat. Scarlet oak and pignut hickory are encountered in this habitat, although other species are present that are remnants of former landscaping activities.

Successional Southern Hardwood is classified as "*a hardwood or mixed forest that occurs on sites that have been cleared or otherwise disturbed. Characteristic trees and shrubs include any of the following: American elm (Ulmus americana), slippery elm (Ulmus rubra), white ash (Fraxinus americana), red maple[s] (Acer rubrum), box elder (Acer negundo), silver maple (Acersaccharinum), sassafras (Sassafras albidum), gray birch (Betula populifolia), hawthorns (Crataegus spp.), eastern red cedar (Juniperus virginiana), and choke-cherry (Prunus virginiana). Certain introduced species are commonly found in successional forests, including black locust (Robinia pseudo-acacia), tree-of-heaven (Ailanthus altissima), and buckthorn (Rhamnus cathartica). Any of these may be dominant or codominant in a successional southern hardwood forest. This is a broadly defined community and several seral and regional variants are known.* (**Edinger, 2014**)." This habitat represents a portion of the site that was previously cleared for landscaping activities (±5.38 acres), and has since experienced regrowth due to lack of regular mowing. A wide variety of species occupies this habitat, including sweet gum, black

cherry, and grape vines. The habitat is generally of low value as a result of the previous disturbance associated with the area.

Mowed lawn with trees is defined as **"***residential, recreational, or commercial land in which the groundcover is dominated by clipped grasses and forbs, and it is shaded by at least 30% cover of trees. Ornamental and/or native shrubs may be present, usually with less than 50% cover. The groundcover is maintained by mowing. Characteristic animals include gray squirrel (Sciurus carolinensis), American robin (Turdus migratorius), mourning dove (Zenaida macroura), and mockingbird (Mimus polyglottos*)." This habitat classification best characterizes the landscaped area on site as several areas of open lawn exist in conjunction with large ornamental trees, such as European beech.

Three large ornamental trees/tree stands are identified for preservation due to the large caliper and aesthetic value of the trees. The trees are comprised of either European beech or purple beach, which are of significant age as evidenced by the caliper of the trees (between 12" and 56" diameter at breast height [dbh]). These trees are currently in good condition, however, it is noted that the larger trees are likely approaching their life span.

Table 2-4 presents a list of vegetation observed or expected on site given the habitats present; it is based upon field investigations conducted by NP&V. This list is not meant to be all-inclusive but was prepared as part of the 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 2-4
PLANT SPECIES LIST

Trees	
* Japanese maple	*Acer palmatum*
* Norway maple	*Acer platanoides [i]*
* red maple	*Acer rubrum*
* horse chestnut	*Aesculus hippocastanum*
* tree-of-heaven	*Ailanthus altissima[i]*
black birch	*Betula lenta*
white birch	*Betula papyifera*
gray birch	*Betula populifolia*
* pignut hickory	*Carya glabra*
American chestnut	*Castanea dentate*
* northern catalpa	*Catalpa speciosa*
* dogwood	*Cornus sp.*
* flowering dogwood	*Cornus florida [p]*
kousa dogwood	*Cornus kousa*
silky dogwood	*Cornus amomum*
* European beech	*Fagus sylvatica*
black ash	*Fraxinus nigra*
American holly	*Ilex opaca [p]*
butternut	*Juglans cinerea [p]*

black walnut	*Juglans nigra*
* eastern red cedar	*Juniperus virginiana*
* European larch	*Larix decidua*
* sweetgum	*Liquidambar styraciflua*
* tulip tree	*Liriodendron tulipifera*
big leaf magnolia	*Magnolia macrophylla*
* mulberry	*Morus alba*
* princess tree	*Paulownia tomentosa*
Norway spruce	*Picea abies*
* pitch pine	*Pinus rigida*
* white pine	*Pinus strobes*
* common cottonwood	*Populus deltoides*
aspen	*Populus sp.*
* black cherry	*Prunus serotina*
choke cherry	*Prunus virginiana*
* white oak	*Quercus alba*
* scarlet oak	*Quercus coccinea*
pin oak	*Quercus palustris*
chestnut oak	*Quercus prinus*
* red oak	*Quercus rubra*
* black oak	*Quercus velutina*
black locust	*Robinia psuedo-acacia [i]*
buckthorn	*Rhamnus sp.*
* sassafras	*Sassafras albidum*
* northern prickly ash	*Zanthoxylum americanum*

Shrubs and Vines

* porcelain berry	*Ampelopsis brevipedunculata [i]*
Japanese barberry	*Berberis thunbergii*
* boxwood	*Buxus sempervirens*
American bittersweet	*Celastrus scandens [p]*
* Asiatic bittersweet	*Celastrus orbiculata [i]*
* autumn olive	*Eleagnus umbellate [i]*
* winged euonymous	*Euonymus alatus [i]*
inkberry	*Ilex glabra [p]*
bush clover	*Lespedeza sp.*
* English ivy	*Hedera helix [i]*
* mountain laurel	*Kalmia latifolia [p]*
* Japanese honeysuckle	*Lonicera japonica [i]*
bayberry	*Myrica pennsylvanica [p]*
* Virginia creeper	*Parthenocissus quinquefolia*
Boston ivy	*Parthenocissus tricuspidata*
* multiflora rose	*Rosa multiflora [i]*
pasture rose	*Rosa sp.*
* great laurel	*Rhododendron maximum [p]*
* azalea	*Rhododendron pentanthera*
* shining sumac	*Rhus copallina*
* blackberry	*Rubus allegheniensis*

black raspberry	*Rubus occidentalis*
* wineberry	*Rubus phoenicolasius [i]*
common elderberry	*Sambucus canadensis*
greenbriar	*Smilax rotundifolia*
* Canada yew	*Taxus canadensis*
* arborvitae	*Thuja occidentalis*
* poison ivy	*Toxicodendron radicans*
* wisteria	*Wisteria sp. [i]*
low bush blueberry	*Vaccinium angustifolium*
high bush blueberry	*Vaccinium corymbosum*
maple leaf viburnum	*Viburnum acerifolium*
northern arrowwood	*Viburnum dentatum*
* ornamental viburnum	*Viburnum sp.*
* creeping myrtle	*Vinca minor [i]*
* grape	*Vitis sp.*
* yucca	*Yucca sp.*

Herbs and Groundcovers

* yarrow	*Achillia millefolium*
redtop	*Agrostis gigantean*
* colic root	*Aletris farinosa*
* garlic mustard	*Alliaria petiolata [i]*
wild onion	*Allium stellatum*
ragweed	*Ambrosia artemisiifolia*
big bluestem grass	*Andropogon gerardii*
little bluestem grass	*Andropogon scoparius.*
* broom sedge	*Andropogon virginicus*
* common milkweed	*Asclepias syrica*
* common mugwort	*Artemisia vulgaris [i]*
jack-in-the-pulpit	*Arisaema triphyllum*
* aster	*Aster sp.*
Lady fern	*Athyrium filix-femina [p]*
yellow rocket	*Barbarea vulgaris*
tussock sedge	*Carex stricta*
sedges	*Carex sp.*
Pennsylvania sedge	*Carex pensylvanica*
spotted knapweed	*Centurea maculosa [i]*
common lamb's quarters	*Chenopodium album*
celandine	*Chelidonium majus*
striped wintergreen	*Chimaphila maculata*
chicory	*Cichorium intybus*
* enchanter's nightshade	*Circaea quadrisulcata*
thistle	*Cirsium sp.*
* lily-of-the-valley	*Convallaria majalis*
crown vetch	*Coronilla varia*
ladyslipper	*Cypripedium sp.*
orchard grass	*Dactylis glomerata*
poverty grass	*Danthonia spicata*

	Queen Anne's lace	*Daucus carota*
	hay-scented fern	*Dennstaedtia punctilobula*
*	white wood aster	*Eurybia divaricate*
*	Japanese knotweed	*Fallopia japonica [i]*
*	rough bedstraw	*Galium asprellum*
*	Clayton's bedstraw	*Galium tinctorium*
	ground ivy	*Glechoma hederaceae*
*	hostas	*Hostas sp.*
	daylily	*Hemerocallis fulva*
*	bluebells	*Hyacinthoides non-scripta*
	common St. Johnswort	*Hypericum perforatum*
*	jewelweed	*Impatiens capensis*
*	duckweed	*Lemna minor*
	butter-n-eggs	*Linaria vulgaris*
	club moss	*Lycopoduim sp. [p]*
	Canada mayflower	*Mainthemum canadense*
	false Solomon's-seal	*Mainthemum racemosum*
*	Japanese stiltgrass	*Microstegium vimineum [i]*
*	sensitive fern	*Onoclea sensibilis*
*	star of Bethlehem	*Ornithogalum umbellatum*
	cinnamon fern	*Osmunda cinnamomea [p]*
	royal fern	*Osmunca regalis [p]*
*	common wood sorrel	*Oxalis acetosella*
*	pachysandra	*Pachysandra terminalis*
	panic grass	*Panicum sp.*
	deer tongue grass	*Panicum clandestinum*
*	switchgrass	*Panicum virgatum*
	timothy	*Phleum pretense*
*	pokeweed	*Phytolacca americana*
*	clearweed	*Pilea pumila*
	English plantain	*Plantago lanceolata*
	bluegrass	*Poa sp.*
*	smooth Solomon's-seal	*Polygonatum biflorum*
*	smartweed sp.	*Polygonum sp.*
	Christmas fern	*Polystichum acrostichoides [p]*
*	cinquefoils	*Potentilla spp.*
*	lesser celandine	*Ranunculus ficaria [i]*
*	common dewberry	*Rubus flagellaris*
*	dock	*Rumex crispus*
	sheep sorrel	*Rumex acetosella*
*	fox tail	*Setaria viridis*
	goldenrods	*Solidago sp.*
*	celandine poppy	*Stylophorum diphyllum*
	common dandelion	*Taraxacum officinale*
	New York fern	*Thelypteris noveboracensis*
	white clover	*Trifolium repens*
*	mullein	*Verbascum thapsus*

* Species identified on site by NP&V
[i] - Invasive plant
[p] - Exploitably vulnerable plant
[t] - Threatened plant

Wildlife

Relatively few wildlife species were observed on site, although it is expected that the property should support a number of wildlife species common to suburban and forested habitats, particularly those that are more tolerant of human activity. Species that avoid humans, and/or those that are sensitive to development may also be present on site, though in lesser numbers.

Avian species which might be expected on the property include a variety of woodpeckers, wrens, titmice, nuthatches, kinglets, thrushes, creepers, flycatchers, swallows, warblers, corvids, thrashers, orioles and blackbirds, doves, starling, grosbeaks, finches, towhees, juncos, and sparrows. During the warmer months, a variety of warblers may also migrate into the area. A limited number of game birds such as the ring-necked pheasant, ruffed grouse and bobwhite may also be present, and owls and raptors may use the site for hunting and limited numbers may breed in the surrounding areas. Data from the 2005 Breeding Bird Survey for the census block which contains the site was obtained from the New York State Department of Environmental Conservation (**Appendix F-1)**. 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 DEC breeding bird survey are likely to be found on site, with the exception of species common to habitats not found on site. No unique species are expected given the site development, adjacent roadway and surrounding residential development resulting in limited off site natural habitat. **Table 2-5** is a list of the bird species observed or expected on site given the habitats present and is also based upon field investigations conducted by NP&V.

TABLE 2-5
BIRD SPECIES LIST

* gray catbird	*Dumetella carolinensis*
red-winged blackbird	*Agelaius phoeniceus*
* black-capped chickadee	*Parus atricapillus*
common bobwhite	*Colinus irginainuse*
indigo bunting	*Passerina cyanea*
* Northern cardinal	*Cardinalis cardinalis*
brown-headed cowbird	*Molothrus ater*
brown creeper	*Certhia familiaris*
American crow	*Corvus brachyrhynchos*
yellow-billed cuckoo	*Coccyzus americanus*
black-billed cuckoo	*Coccyzus americanus*
* mourning dove	*Zenaida macroura*
* American black duck	*Anas rubripes*
* American goldfinch	*Carduelis tristis*
house finch	*Carpodacus mexicanus*
purple finch	*Carpodacus purpureus*

* Northern flicker	*Colaptus auratus*
least flycatcher	*Empidonax minimus*
willow flycatcher	*Empidonax trailii*
great-crested flycatcher	*Myiarchus crinitus*
blue-grey gnatcatcher	*Polioptila caerulea*
* common grackle	*Quiscalus quiscula*
ring-necked pheasant	*Phasianus colchicus*
rose-breasted grosbeak	*Pheucticus ludovicianus*
* red-tailed hawk	*Buteo jamaicensis*
* blue jay	*Cyanocitta cristatta*
* Northern (dark-eyed) junco	*Junco hyemalis*
Eastern kingbird	*Tyrannus tyrannus*
Eastern phoebe	*Sayornix p hoebe*
golden-crowned kinglet	*Regulus satrapa*
ruby-crowned kinglet	*Regulus calendula*
bobolink	*Dolichonyx oryzivorys*
* Northern mockingbird	*Mimus polyglottos*
white-breasted nuthatch	*Sitta carolinensis*
* northern oriole	*Icterus galbula*
ovenbird	*Seiurus aurocapillus*
common nighthawk	*Chordeiles minor [s]*
Eastern screech owl	*Otus asio*
* barred owl	*Strix varia*
* American robin	*Turdus migratorius*
American redstart	*Setophaga ruticilla*
* chipping sparrow	*Spizella passerina*
swamp sparrow	*Melospiza georgiana*
* white-crowned sparrow	*Zonotrichia leucophrys*
fox sparrow	*Passerella iliaca*
house sparrow	*Passer domesticus*
song sparrow	*Melospiza melodia*
white-throated sparrow	*Zonotrichia albicollis*
European starling	*Sturnus vulgaris*
barn swallow	*Hirundo rustica*
rough-winged swallow	*Stelgidopteryx ruficollis*
tree swallow	*Tachycineat bicolor*
purple martin	*Progne subis*
chimney swift	*Chaetura pelagica*
scarlet tanager	*Piranga olivacea*
brown thrasher	*Toxostoma rufum*
Eastern towhee	*Pipilo erythrophathalmus*
* Eastern bluebird	*Sialia sialis*
hermit thrush	*Catharus guttatus*
wood thrush	*Hylocichla mustelina*
* tufted titmouse	*Parus bicolor*
veery	*Catharus fuscescens*
red-eyed vireo	*Vireo olivaceus*
white-eyed vireo	*Vireo griseus*

blue-winged warbler	*Vermivora pinus*
black-and-white warbler	*Mniotilta varia*
black-throated blue warbler	*Dendroica caerulescens*
* prairie warbler	*Setophaga discolor*
yellow-rumped warbler	*Dendroica coronata*
* yellow warbler	*Dendrocica petchia*
Carolina wren	*Thryothorus ludovicianus*
horned lark	*Eremophila alpestris*
killdeer	*Charadrius vociferus*
cedar waxwing	*Bombycilla cedrorum*
American woodcock	*Philhela minor*
Eastern wood-peewee	*Contopus virens*
downy woodpecker	*Picoides pubescens*
hairy woodpecker	*Picoides villosus*
red-bellied woodpecker	*Melanerpes carolinus*
yellow bellied sapsucker	*Sphyrapicus varius*
house wren	*Troglodytes aedon*
common yellowthroat	*Geothlypis trichas*

[s] Special concern species
* Species identified on site during field visits by NP&V Staff.

A variety of small mammals would also be expected and include the eastern chipmunk, house mouse, white-footed mouse, Norway rat, eastern mole, short-tailed shrew, masked shrew, and meadow vole. Of the larger mammals, the Virginia opossum, fox and raccoon and white-tailed deer would also be expected to utilize the property, although in somewhat lesser numbers than smaller mammals. Several bat species may also be present on site and in the general area. Both a red fox and an eastern gray squirrel were observed on the site during NP&V site visits. In addition, in order to determine the presence/absence of the northern long eared bat (recently federally listed as a threatened species), acoustical surveys of the subject property were conducted. Species identified during that survey are included in **Table 2-6** below, and further detail regarding the survey methodology is provided in **Section 2.6.2** and in **Appendix F-4**. .

TABLE 2-6
MAMMAL SPECIES LIST

* 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*
* red fox	*Vulpes vulpes*
Eastern mole	*Scalopus aquaticus*
house mouse	*Mus musculus*
white-footed mouse	*Peromyscus leucopus*
Virginia opossum	*Didelphis virginiana*
raccoon	*Procyon lotor*
Norway rat	*Rattus norvegicus*
masked shrew	*Sorex cinereus*
short-tailed shrew	*Blarina breuicauda*
* Eastern gray squirrel	*Sciurus carolinensis*
meadow vole	*Microtus pennsylvanicus*
white-tailed deer	*Odocoileus virginianus*

*species observed by NP&V staff

The site exhibits a wide variety of terrestrial habitats and contains a recharge basin observed to hold standing water, and as a result, it is expected that the site should support a variety of terrestrial and aquatic species. The spadefoot toad is expected, as it is found in upland habitats, and the Fowler's toad might also be present. The red-backed salamander is the most common salamander on Long Island, and is highly terrestrial. It prefers a dry woodland habitat with plenty of leaf litter and fallen logs to forage for insects **(Bishop, 1943)**, and generally lays its eggs in clumps on damp logs or moss (**Conant and Collins, 1991**). The most likely reptiles to be present on site are the colubrid snakes, including the eastern garter snake, eastern hognose snake, worm snake, black racer and eastern milk snake. The only turtle species common to terrestrial habitats on Long Island is the eastern box turtle, which requires very little water **(Obst, undated)**.

TABLE 2-7
AMPHIBIAN & REPTILE SPECIES

Fowler's Toad	*Bufo woodhousei fowleri*
spring peeper	*Hyla crucifer*
common gray treefrog	*Hyla versicolor*
red-backed salamander	*Plethodon cinereus cinereus*

bullfrog	*Rana catesbeiana*
green frog	*Rana clamitans melanota*
wood frog	*Rana sylvatica*
eastern spadefoot toad	*Scaphiopus holbrooki*
worm snake	*Carphophis amoenus [s]*
common garter snake	*Thamnophis sirtalis*
eastern box turtle	*Terrapene Carolina [s]*
eastern hognose snake	*Heterodon platyrhinos [s]*
eastern milk snake	*Lampropeltis triangulum*

[s] NYS special concern species
[e] NYS endangered species
* Species identified on site during field visits by NPV Staff.

Rare and Endangered Species/Unique Habitat Potential

The NY Natural Heritage Program (ECL 9-1503) was contacted to determine if there is any record of rare plants or wildlife in the vicinity. In a correspondence letter dated April 22, 2014, the Program had no recent records of rare, threatened or endangered species in the vicinity of the site, however, one historical record of a threatened plant was noted. A review of the habitat requirements and potential presence of the species is provided in the following paragraph. **Appendix F-2** includes a copy of the correspondence received from the N.Y. Natural Heritage Program.

Yellow Giant-hyssop (*Agastache nepetoides*) is a threatened forb/herb species which prefers deciduous woodlands, woodland borders and openings, thickets, meadows in wooded areas, and powerline clearances in wooded areas (**Toomey and Toomey, 2002**). This species was last observed in Roslyn along the edge of rich, hilly woods in 1928. Although suitable habitat does exist on the property, this species was not observed during any of the site visits.

Great laurel, mountain laurel and flowering dogwood are "exploitably vulnerable" species that are common in Long Island natural habitats. "Exploitably vulnerable" plants are species which are not currently threatened or endangered, but which are commonly collected for flower arrangements or other uses. Under ECL 1503.3, no person may "*knowingly pick, pluck, sever, damage by the application of herbicides or defoliants or carry, without the consent of the owner thereof, protected plants"* (**NYSDEC, 1975**). As per this section of the ECL the project sponsor (i.e. owner) would not be restricted in utilizing the site for the intended purpose. Therefore, the presence of protected plants would not restrict use of the site under the NYS Environmental Conservation Law.

The northern long-eared bat was recently listed by the US Fish and Wildlife Service (USFWS) as a threatened species. This species requires woodland habitat for foraging with open areas between either the shrub layer or sub canopy layer and the canopy. Roosting habitat requires trees with peeling bark or snags, and will more rarely utilize structures for roosting. Locally, habitat for hibernation includes caves and structures that provide some insulation from the winter

temperatures. As caves are not present on Long Island, a variety of other habitat types are utilized by bats, including dead or dying trees and roofs of buildings. Habitat for roosting and foraging is present on the subject site, as is, habitat for hibernation as small structures remain on the property. As a result, there is potential for this species to utilize the site for maternity roosting, foraging and hibernation activities.

Of the species which may utilize or be expected on the site, the red-headed woodpecker, eastern spadefoot toad, eastern hognose snake, worm snake and eastern box turtle are listed as special concern species. Surveys to determine the presence/absence of these species were conducted on May 16, 2015, June 3, 2015, June 16, 2015 and July 10, 2015. Survey methodology included visiting the site immediately after a precipitation event, as there would be a higher likelihood of encountering the majority of the species in wet conditions. Random transects were utilized to traverse the property. Rocks and snags were lifted to reveal any sheltered wildlife. Additionally, an auditory survey of the call of the eastern spadefoot toad was conducted in the vicinity of the recharge basin. None of the special concern species listed as potentially occurring on site were identified during any of the site visits. As a result, it assumed that these species are not utilizing the subject site.

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 New York Environmental Conservation Law Section 11- 0535. This category is intended to enhance public awareness of those species which deserve additional attention.

2.6.2 Anticipated Impacts

Vegetation

The impacts to the ecological resources of a site are generally a direct result of clearing of natural vegetation, increase in human activity and associated wildlife stressors, and the resulting loss and fragmentation of wildlife habitat. The majority of the development area is currently wooded, with the exception of approximately 10.62 acres of landscaped area, 0.48 acres of an existing recharge basin, 0.46 acres of unvegetated area and 2.16 acres of impervious area. It is anticipated that under the proposed development, a total of 1.44 acres of natural vegetation would be retained, which is comprised of the remnant Coastal Oak-Hickory forest and a small portion (0.02 acres) of Successional Southern Hardwood forest.

The change in habitat quantities is listed in **Table 2-8**. As illustrated in **Table 2-8**, the proposed development intends to ultimately provide approximately 4.73% of naturally vegetated area as well as 62.11% of landscaped area and 30.66% or 9.33 acres of impervious surfaces. As a result, the site will continue to provide some natural habitat for wildlife, though the removal of the existing woodland vegetation on the property is expected to result in a change in the characteristics of site habitat. It is noted that the proposed on-site clearing has been minimized to the maximum extent practicable given that the existing topographic relief and the need for

retaining stormwater on site provide a significant constraint to the minimization of land clearing. During individual lot development, existing trees will be retained where practicable, however, for the purposes of this assessment, it is assume that unless otherwise noted, all existing vegetation will be removed from each lot. It is further noted that the loss of habitat on this site is of marginal value due to the previous disturbance associated with the site.

Table 2-8
HABITAT QUANTITIES
Existing and Conceptual Conditions

Coverage Type	**Existing Conditions**		**Conceptual Project**		**Change** (ac)
	Coverage (ac)	**Percent**	**Coverage** (ac)	**Percent**	
Coastal Oak Hickory (Remnant)	11.33	37.23%	1.42	4.67%	-9.91
Successional Southern Hardwood	5.38	17.68%	0.02	0.07%	-5.36
Landscaped (Mowed Lawn with Trees)	10.62	34.90%	18.90	62.11%	8.28
Recharge Basin	0.48	1.58%	0.76	2.50%	0.28
Impervious	2.16	7.10%	9.33	30.66%	7.17
Unvegetated	0.46	1.51%	0	0.00%	-0.46
TOTAL	**30.43**	**100.00%**	**30.43**	**100.00%**	---

The perimeter trees and three tree clusters slated for preservation will be protected during construction through the use of orange construction fence which will be placed on the outer drip line of the area to be preserved. Clearing and construction activities will not occur within the demarcated protection area. Additionally, the preserved trees will be protected from removal by individual lot owners through the use of covenants and restrictions placed on each lot that contains a protected tree, which would prohibit removal of the tree until a recognized and certified arborist determines the tree is unhealthy and poses a danger to the residential development due to its poor health and potential for toppling.

As previously stated, the NY Natural Heritage Program identified only one historical record of a threatened plant in the vicinity of the site, however, as previously indicated, this plant is not expected on site due to the historical nature of the record, nor was it observed during site visits. As such, no impact to rare, threatened or endangered plant species are anticipated as a result of the proposed project.

Wildlife

The majority of habitat on the property is dominated by a remnant Coastal Oak-Hickory forest. The property is not expected to act as a refuge for rare native flora or fauna, but does contain a small population of local birds and mammals, such as red fox 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.

Approximately 1.44 acres of natural vegetation are anticipated to remain on the overall property under the proposed plan. Although the proposed 18.90 acres of landscaped vegetation provides less 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.

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 south 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.

As habitat potential for the northern long eared bat exists on the subject site, acoustical surveys were conducted to determine the presence/absence of the species on the site. Two acoustical detectors were set up for two nights (July 8 and July 30, 3015) to gather call data. The call data was then reviewed by software designed to identify bat calls and were also reviewed manually due to the presence of the eastern red bat and the little brown bat. Neither software identification nor manual identification revealed the presence of the northern long eared bat. As a result, this species is not expected to be found on site and impacts as a result of the proposed development is not anticipated to occur for this species.

No rare or endangered wildlife species are expected on the site given the habitats present. The red-headed woodpecker, eastern spadefoot toad, eastern hognose snake, worm snake and eastern box turtle are the only species potentially expected on site which are listed as special concern species. Although there is documented concern about their welfare in New York State, these 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).

2.6.3 Proposed Mitigation

- Native plant species that provide food and shelter to wildlife will be utilized in some of the landscaped areas.
- Three specimen tree clusters will be preserved during development. These tree stands/trees will be protected from removal by individual lot owners through the use of covenants and restrictions placed on each lot that contains a protected tree, which would prohibit removal of the tree until a recognized and certified arborist determines the tree is

unhealthy and poses a danger to the residential development due to its poor health and potential for toppling.

- Where practicable, trees will be retained during the development of individual plots.
- Disturbance will be minimized to the maximum extent practicable, including delineating tree-clearing limits at the site prior to construction in order to avoid inadvertent clearing.
- No known invasive plant species will be utilized, including those species specifically those species listed in Nassau County Local Law 22-2009 and 6 NYCRR Part 575.

SECTION 3.0

HUMAN ENVIRONMENTAL RESOURCES

3.0 HUMAN ENVIRONMENTAL RESOURCES

3.1 Land Use, Zoning and Plans

3.1.1 Existing Conditions

Land Use

The subject property was formerly the site of the St. Ignatius Jesuit Retreat Center. The former three-story, 87-room, 20,194 SF retreat center has since been removed from the site and the property is now vacant with the exception of several accessory structures and site infrastructure that still remain, including:

- ± 522 SF dilapidated shed/garage;
- ± 511 SF single-story masonry/wood building;
- ± 1,800 SF reflecting pool;
- remains of a ± 1,000 SF in-ground pool (now backfilled);
- ± 108 SF pool house;
- ± 4,776 SF decorative stone maze;
- asphalt driveway;
- stormwater recharge basin; and
- three (3) small asphalt parking lots with a total parking capacity of 80 standard spaces and 4 handicap (ADA) accessible spaces.

The site also contains several easement areas including:

- a 25-foot wide scenic easement (Liber 9689, Page 285) which runs along the northern property boundary from the site's western boundary, east, to a point approximately 35 feet east of the small masonry-wood building, for a total distance of approximately 740 linear feet. This grants The Estates at North Hills Condominium II a scenic and conservation easement in gross over the above described scenic easement area;
- a variable width "LILCO" (PSEG) easement (Liber 6787, Page 400, Liber 2533, Page 532, and Liber 2517 page 270) located along the eastern property boundary; which grants LILCO an easement for construction and maintenance of electrical lines across a 20 foot strip of land on easterly side of premises, and provides electrical easements for construction and maintenance of electrical lines, poles, guy wires and anchors (includes no build language); affects streets only
- a variable width Nassau County working easement located along the eastern property boundary;
- a 15-foot wide deep sanitary sewer easement (Liber 9124, Page 703) located along the north side of a section of the site access road for a total distance of approximately 165 linear feet; grants adjoining parcel owner an easement on the subject property (a) for construction and maintenance of drainage, water, sewer and other utilities in connection with development of the adjoining parcel if required by municipal requirements or expenditure of substantial sums or if it would be impractical to contain such items on the adjoining premises (appears to have expired since specific easements in connection with same were not recorded within 5 years of this agreement); (b) for construction and maintenance of a sanitary sewer line and a storm water retention basin servicing the

adjoining property; and (c) for draining purposes to serve the adjoining property (including installation of dry wells) - allows subject property owner to tap into and use in common the sewer/water system developed by adjoining property owner on subject property.

The locations and dimensions of all easements and currently remaining structures, all of which are to be removed, are shown on the **Existing Conditions – Demolition Plan** (**Attachment 1)**. A photo log showing features that currently exist on and adjacent to the project site is provided in **Appendix G**.

The subject property is located within a medium to high density suburban residential neighborhood in the Incorporated Village of North Hills, Town of North Hempstead, Nassau County, NY. Land to the north and south of the site is developed with multifamily residential communities known as "The Estates at North Hills 1" and "The Estates at North Hills 2," which together, contain several hundred dwelling units. Land further to the south is occupied by Temple Judea and the Shelter Rock Tennis and Country Club. Land to the east of the subject property, on the east side of Searingtown Road, is occupied by the 98-acre Christopher Morley County Park. The park contains a variety of recreational facilities, including a 9-hole golf course, three baseball/softball fields, tennis and basketball courts, an Olympic-size swimming pool, diving pool, a skating rink, a playground, reflecting pond, and at its north end, a 30-acre tract of vacant woodlands with hiking/jogging trails and fitness stations. Land adjacent to the west of the project site is developed with several multifamily residences associated with The Estates at North Hills 1. Several single-family residential subdivisions exist further to the west. The subject property is located roughly 2,000 feet (one minute) north of the Long Island Expressway (LIE) and Northern State Parkway (NSP) and access to the site is from Searingtown Road (County Road 101). **Figure 3-1** is an aerial photograph with labels indicating land use in the vicinity of the project site.

Zoning

The Incorporated Village of North Hills does not have a Comprehensive Plan/Master Plan document. In lieu of such a document, the Village relies primarily on its duly adopted Zoning Code (Chapter 215, "Zoning") and its Official Zoning Map to manage growth, guide land development activities, promote land use compatibility and suitable patterns of development, provide housing and economic development opportunities, and protect the environment.

The project site is zoned Residential "R-3" which is primarily for single-family residential development on lots of 20,000 SF or more. Adjacent land to the north, south, and west is also zoned R-3, although these sites are developed semi-attached multifamily housing, and property to the east ("Christopher Morley County Park") is zoned Residential "R-1" (one dwelling per 2.5 acres).

The R-3 Residential zoning district is primarily a single-family residential zone; however, a few additional land uses are permitted as-of-right. The following is a list of permissible land uses in the Village's R-3 zoning district:

1) Residential single-family detached dwellings on plots of no less than twenty thousand (20,000) square feet.
2) Religious uses, subject to the provisions of this chapter and with the permission of the Board of Trustees.
3) Single-family attached or detached cluster dwellings, with total average density not to exceed two units per acre on sites developed or approved for development before January 1, 1990.
4) Noncommercial membership clubs, subject to the requirements applicable in an R-1 District and with the permission of the Board of Trustees.
5) Governmental facilities.
6) Open space (OS) residential subdivisions, upon approval by the Planning Board as permitted in § 174-13.2 of the Code.

The zoning pattern of the area is shown on the Zoning Map provided (**Figure 3-2**).

Plans

1998 Nassau County Comprehensive Plan
In late 1998, the Nassau County Planning Commission adopted its Comprehensive Plan *"…as a policy statement outlining its vision for the future of Nassau County. It focuses on protection of the County's natural resources, current and long-range growth and development which is compatible with the county's quality of life, and provides guidance to decision makers, residents and organizations."* The Planning Commission is empowered by the Nassau County Charter, Article XVI (Planning Department) with primary responsibility over the development and adoption of a County-wide comprehensive master plan and the periodic updating of this plan at least every five years to assure that it remains current.

The 1999 plan was divided into a number of sections and contained twenty-two (22) goals, 107 objectives, and 332 implementation strategies. Following are the salient topics and supporting principles enumerated by the plan:

Interagency Planning and Coordination
- Facilitate and encourage intermunicipal, interagency, and regional efforts which result in the efficient provision of services, project implementation and better communication.

Land Use
- Promote a balanced pattern of land use that encourages the concentration of future development in established areas with adequate infrastructure and facilities, so as to make efficient utilization of the transportation network, preserve the County's environmental and scenic resources, and revitalize the downtowns and Centers.

Environmental Resources
- Protect and preserve the County's critical natural resources, including the wetlands, aquifers, shorelines, water bodies, open space, significant vegetation and nature preserves.
- Protect the quality and quantity of the County's groundwater and surface water resources.
- Encourage the proper operation, maintenance and improvement of the wastewater treatment plants in the County.
- Promote additional recycling of materials and support reliable options for disposal of non-recyclable; solid waste.

- Support the timely clean-up of contaminated sites and the proper disposal of hazardous materials.

Transportation

- Enhance the availability and efficiency of mass transit options in order to improve air quality, reduce the number of single-occupancy vehicles, provide convenient service to residents and commuters, and reduce traffic congestion.
- Maintain the function and improve the capacity of the roadway network to serve a variety of transportation purposes.
- Support opportunities for alternative forms of transportation.
- Develop transportation improvements which will enhance competitiveness for Nassau County's transportation, distribution, and production firms without adversely affecting local communities.
- Support safety and efficiency improvements planned for the LIRR service which are designed to benefit local residents and employees commuting to and from Nassau County.

Housing

- Encourage a diversified housing supply that consists of new residential construction, preservation and improvement of the existing housing stock, and reuse of vacant or underutilized buildings.
- Provide greater rental and homeownership opportunities for County residents.
- Identify obstacles to housing access in the County and efforts to make changes, as well as opportunities to better understand housing market conditions and trends.

The Economy

- Strengthen the County's economy by encouraging economic development activities which will provide jobs, increase the tax base, ensure a stable land use pattern, and diversify the County's employment sectors.
- Support efforts to provide training and education which will produce skills required for the present and future labor force.
- Support initiatives which are targeted at strengthening and improving the County's downtowns and Centers.

Culture and Recreation

- Support and enhance the cultural facilities, services, programs and events in the County to improve the quality of life and encourage tourism.
- Support the preservation of historic resources as key attributes to the quality of life and historic evolution of the region.
- Provide sufficient parks, preserves, and recreational facilities to serve the current residents and growing segments of the population.

Community Facilities and Services

- Assure that there is an adequate system of public and private community facilities, as well as educational and social services to support current and future residents of Nassau County.

The Nassau County Comprehensive Plan land use map recommends (in graphic form) that the subject site be developed for "Suburban Density Residential" use at a density of between 2 and 10 dwelling units per acre; however, the Plan itself, provides no additional specific recommendations for the property.

2010 Draft Comprehensive Plan
The County is currently in the process of updating its Comprehensive Plan. Although the Plan is in draft form and does not provide specific recommendations for the subject property, it does provide insight into the County's general land development goals and the actions it believes are necessary to achieve them. The goals outlined in the draft 2010 plan are identical to those of the 1998 plan. A review of the 2010 Draft Comprehensive Plan's Action Plan and Action Plan Matrix lists the following recommendations for implementation by County and municipal agencies which may be applicable to the proposed residential development:

- Create zoning incentives for higher density residential and commercial development;
- Provide incentives for mixed-income residential development near job centers and transit;
- Study use of Transfer of Development Rights (TDR) to protect groundwater and direct future development to downtowns and designated growth areas;
- Adopt an affordable housing/next generation/workforce housing goal for Nassau County;
- Amend subdivision and site plan regulations to encourage orientation of structures to take advantage of solar gain and maintain solar access for adjacent sites; and
- Provide technical assistance to developers to help them move efficiently through the SEQR process.

2001 Nassau County Open Space Plan
In response to recommendations of the Comprehensive Plan, the County Legislature initiated the Nassau County Open Space Project in September 1999. This program was the result of broad-based support for open space preservation disclosed to the County during the public participation phase of plan preparation.

This plan listed a number of recommendations for county government to establish and implement a county-wide Open Space Plan. The first recommendation would establish a new Nassau County Open Space Committee, which would evaluate open space and natural resources in the County and recommend candidate preservation sites to the County Planning Commission. The plan suggested a process and criteria whereby this new commission would characterize and prioritize these candidate parcels. The plan also discussed the creation of a private County Land Trust and coordination with other private open space protection organizations that would assist in the preservation of open space, such as The Nature Conservancy; the Open Space Preservation Trust, Inc.; and The Trust for Public Lands. Finally, the plan included a listing of possible mechanisms for protecting and maintaining existing parks and preserves in the County.

The subject site was not recommended for purchase or preservation by the Nassau County Open Space Plan.

3.1.2 Anticipated Impacts

Land Use
The proposed 46-lot single-family residential subdivision fully complies with the land use requirements of the Village Code (i.e., single-family residences) and the necessary services, infrastructure, and utilities to serve the development are available. The North Hills community is

expected to benefit from the presence of this new subdivision, as the local population will be provided with an attractive residential project appropriately sited and well served with necessary services and infrastructure. The use is fully appropriate for this location based on surrounding land uses and zoning but has the potential to further enhance the diversity of the local housing stock, which is predominantly composed of more-densely developed multifamily residential neighborhoods. The transition from adjacent multifamily residential and park uses, is appropriate and fully consistent with land planning practice and Village zoning.

Zoning

The proposed project has been designed in accordance with the standards and specifications of Chapters 215, "Zoning," and 179, "Site Development Regulations," of the Village of North Hills Code with the exception of those standards indicated in *italics* in **Table 3-1** and discussed in greater detail following the table. As the Village of North Hills does not have a Comprehensive or Master Planning document, its Official Zoning Map and Zoning Code, along with the Nassau County Comprehensive Plan, are the primary instruments that provide the necessary guidance to control potential adverse land use impacts from development. The dimensional zoning requirements of the Village's R-3 zoning district are provided in **Table 3-1**.

TABLE 3-1

ZONING AND DEVELOMENT STANDARDS COMPLIANCE TABLE
(Standard Residential Subdivision in the R-3 Zone)

Parameter	Requirement	Proposed Subdivision
Lot Area	Minimum 20,000 square feet	≥ 20,000
Lot Width	Minimum 115 feet	≥ 115 feet
Road Frontage	Minimum of 50 feet	> 50 feet
Front Yard Setback	Minimum 50 feet, except that the Planning Board may, at the time of approval of a site plan, permit a minimum front yard setback of no less than 45 feet if the average of all front yard setbacks on the site is no less than 50 feet and the maximum front yard setback on the site is no more than 20 feet greater than the minimum front yard setback on the site	*Minimum front yard setback of 45 feet and average of all front yard setbacks on the site is no less than 50 feet. 45 foot setback requested for Lots: 1, 7, 23-28, 35, 37 and 44. Planning Board Waiver requested.*
Front Yard Setback	50 feet or 45 feet pursuant to §215-24 F. (1)	*Proposed 27 feet setback for the clubhouse from internal roadway. Variance requested.*
Side Yard Setback	Total 50 feet; 20 feet minimum where dwelling is 1 or $1^1/_2$-stories; side yard setback shall total at least 60 feet, and the minimum side yard setback shall be 25 feet where the	Total of 60 feet, with minimum side yard setback of 25 feet (based on homes with 2 to $2^1/_2$-stories)

Parameter	Requirement	Proposed Subdivision
	dwelling is 2 or $2^1/_2$-stories	
Rear Yard Setback	Minimum 50 feet	≥ 50 feet
Setback from County road (Searingtown Road)	150 feet	All single family dwellings in compliance. *Variance requested for accessory structures:* - *92' to gatehouse* - *48' to clubhouse parking area* - *Retaining walls for Lots 23-26 and the clubhouse*
Building Height	Maximum $2^1/_2$ stories or 30 feet in the case of a flat roof or 35 feet for any other roof	≤ $2^1/_2$-stories
Minimum Floor Area per Dwelling Unit	1,500 square feet	> 1,500 square feet
Building Coverage	Maximum 20% for 1 and $1^1/_2$-story dwellings and 15% for 2 and $2^1/_2$-story dwellings	≤ 15%
Parking	At least 3 on-site spaces, 2 of which shall be enclosed; 1 space per 200 SF of GFA (15 spaces) for the clubhouse	At least 3 on-site spaces/lot, 2 of which will be enclosed; 15 parking spaces provided for the clubhouse (15 required)
Streets	Maximum 8 percent slope Minimum of 50 feet ROW width Minimum roadway width of 34 feet	*Maximum 9 percent slope for limited are of access drive. Minimum ROW width and roadway width of 30 feet (private road). Planning Board waiver requested.*

As can be seen by analysis of the "**Preliminary Map"** (**Attachment 1**) and the "**Zoning Compliance**" table (**Table 3-1**) above, the individual residential lots comply with the requirements of the Village Code. Requested Planning Board waivers and ZBA variances for accessory structures are described below:

- Front Yard Principle Structure Setback: A Planning Board waiver is required for the relaxation of the minimum 50 foot front yard setback by to a minimum of 45 feet and an average of no less than 50 feet with the maximum front yard setback being no more than 20 feet greater than the minimum front yard setback on the site, as permitted by § 215-11 D. (4)). A waiver for 45 foot setback is requested for Lots: 1, 7, 23-28, 35, 37 and 44.

- Maximum Street Gradient: A Planning Board waiver is required for the relaxation of maximum street gradients exceeding an 8% slope to allow a maximum slope of nine percent for an approximately 70 linear foot area along the access roadway (§ 179-40 L. (1)).

- Minimum Right-of-Way (ROW) Width and Street Width: A Planning Board waiver is required for the relaxation of the minimum right-of-way (ROW) width from 50 feet to 30 feet (§ 179-40 H. (1)) and for reduction of street width of 34 feet to 30 feet.

- Setback from Searingtown Road (CR 101): ZBA variances pursuant to § 215-24 F. (1) are required for the relaxation of the 150-foot setback requirement from Searingtown Road for:
    - The gatehouse will be setback approximately 92 feet from the County right-of-way
    - The clubhouse parking area will be setback approximately 48 feet from the County right-of-way.
    - Proposed retaining walls within the 150 foot setback for the emergency access road, Lots 23-26 and the clubhouse due to steep topographic conditions.

- Clubhouse Front Yard Setback: ZBA variance for the relaxation of the front yard setback for the clubhouse from 50 (or 45 pursuant to § 215-11 D. (4)) to 27 feet to the internal roadway.

Front Yard Setback

In regard to the front yard setback requirement, a waiver is requested from the Planning Board for what is a permissible relaxation of front yard setbacks pursuant to § 215-11 D. (4), "Regulations for Residential R-3 District," of the Village Code, which states that:

> The minimum front yard setback shall be 50 feet, except that the Planning Board may, at the time of approval of a site plan, permit a minimum front yard setback of no less than 45 feet if the average of all front yard setbacks on the site is no less than 50 feet and the maximum front yard setback on the site is no more than 20 feet greater than the minimum front yard setback on the site.

Relaxation of the front yard setback as indicated by the Code is fully permissible, subject to the discretion of the Planning Board and adverse impacts to land resources and community character are not anticipated for the following reasons:

- The plan is consistent with the Village's land use and lot area, lot width, and lot frontage zoning requirements outlined in the Code. The proposed subdivision will be a self-contained private gated community and will comply with § 215-11 D. (4) which was adopted and codified only after the requisite public review and SEQRA assessment processes to determine its soundness. Relaxation of the front yard setbacks will not negatively affect the form and pattern of this new development as it will be applied across the subdivision but instead will provide the flexibility needed to provide the best design. Relaxation of the front yard setback by 5 feet will be indistinguishable to passersby.
- The subdivision will have a relatively low density when compared to adjacent multi-family residential developments to the north, south and west.

- The proposed homes will be high-end homes with exceptional architectural quality that will provide a level of visual quality that enhances the integrity of the built environment.
- The planting of street trees, protection of existing specimen trees and tree clusters, retention of natural vegetation for buffering and screening, and ultimately fine landscaping of lots anticipated will promote aesthetic benefits, while screening any less desirable aspects of development from public view.
- Relaxation of the front yard setback will provide additional flexibility to site homes closer to the streets and farther from adjacent homes and private property along the site perimeter. A waiver is requested for Lots: 1, 7, 23-28, 35, 37 and 44

Maximum Street Gradient

In regard to street slope, there is one small section of roadway (approximately 70 linear feet) along the proposed subdivision access road that exceeds the Village's maximum 8% slope standard. This section of road will have a maximum design slope of 9% which is 1% steeper than currently permitted by Code (8%). The Applicant's professional engineering submits that the limited area of proposed 9% slope in this location will provide a suitable access gradient without requiring further additional cutting and grading.

Minimum Right-of-Way (ROW) Width and Street Width

In regard to the requested Planning Board waiver of ROW width from 50 feet to 30 feet for a minor street and a paved roadway width from 34 feet to 30 feet. The project engineers submit that based on street design, the proposed 30-foot paved ROW is suitable for the anticipated traffic associated with a small privately owned and maintained gated residential community. The proposed 30-foot ROW/paved road width is consistent with the 30-foot wide ROW/paved road widths that exist within many private residential communities throughout the Village, including the adjacent Estates at North Hills I and II properties. The proposed street design will be reviewed by the Village Engineer.

Setback from Searingtown Road (CR 101)

The proposed gatehouse, the accessory parking area for the clubhouse and several accessory retaining walls (in support of the emergency access roadway and provision for rear yards for Lots 23-26 and the clubhouse will be within the Village's 150-foot Searingtown Road) yard setback. The gatehouse will be setback a total distance of 92 feet from the County Road. This structure will be an attractively designed within a landscaped median, and located to allow for visitor vehicle stacking and at a reasonable distance from Searingtown Road (consistent with many other gatehouses in the area, including the Estates at North Hills 1 and 2 properties to the north and south of the site).

Steep slopes on the property affect the siting of the clubhouse parking area , as well as impacts the ability to provide for a rear yards for the lots along Searingtown Road and the emergency access connection to Searingtown Road (as Estates Terraces Street is a private roadway). The retaining walls are proposed to provide grade transitions and reduce disturbance in this steep slope area. The impact of disturbing steep slopes without these retaining walls on the site outweighs the minimal impact expected from the relaxation of the setback for these accessory features. The proposed landscaping plan has been prepared to heavily screen the parking area and retaining walls from the street.

Front Yard Setback for the Clubhouse

The clubhouse will be setback 27 feet from the interior subdivision road it fronts on; therefore, a ZBA variance for the relaxation of the front yard setback for the clubhouse from 50 feet (or 45 feet pursuant to § 215-11 D. (4)) to 27 feet. Locating the structure closer to the interior subdivision street in the private community will allow the structure to be setback an additional 10 feet farther from Searingtown Road (CR101). The size of the proposed structure is not an imposing or significantly large structure that will have a dominant street presence. The height of the structure as measured from the street frontage will not exceed 15 feet in height. Additionally, locating the structure closer to the subdivision street and farther from Searingtown Road allows the structure to be constructed on flatter terrain.

Plans

Nassau County Comprehensive Plan - Under current zoning, the subject 30.43-acre property may be subdivided into 46 fully conforming house lots averaging roughly one-half acre or 2 lots per acre after providing for necessary streets and drainage recharge areas (see **Yield Map, Attachment 2**). The proposed project's yield of 46 single-family residential lots is consistent with the Nassau County Comprehensive Plan's "Suburban Density" recommendation of 2 to 10 units/acre for the property. As such, the Applicant's proposed subdivision falls within the lower density range of Nassau County's 2-10 units/acre land use recommendation and is therefore consistent.

The following is an assessment of subdivision's conformance to applicable policies of the Nassau County Comprehensive Plan. As previously indicated, the only site specific recommendation of the Nassau County Comprehensive Plan is its recommended land use for the property as shown on the plan's land use map. Moreover, many of the remaining Plan policies appear more relevant to the activities of the County itself, than the Village.

Interagency Planning and Coordination

- Facilitate and encourage intermunicipal, interagency, and regional efforts which result in the efficient provision of services, project implementation and better communication.

Response: *This project has included considerable outreach to community service providers including the issuance of letters to community service providers and utilities. (**Appendix A**). Numerous permits and approvals are required from Village, County and State agencies ("involved agencies") and community service providers which is another level of coordination and outreach. An open public hearing is anticipated during which the public will have an opportunity to voice its opinions for and against the project. This project and its environmental review has involved an examination of the County's Comprehensive Plan, the Long Island SGPA Plan, and other regional plans.*

Land Use

- Promote a balanced pattern of land use that encourages the concentration of future development in established areas with adequate infrastructure and facilities, so as to make efficient utilization of the transportation network, preserve the County's environmental and scenic resources, and revitalize the downtowns and Centers.

Response: *The subject property is located within an already developed area and the site itself was previously developed and has been significantly disturbed. The proposed project is consistent with the County's suburban density residential development use and density standard of 2 to 10 units per acre. Public water, sewer, fire, police, and other essential services and utilities are available in the area to serve the subdivision. The Applicant has reached out to all major utility and service providers for input on the project and to confirm the availability of services. The property has easy access to the local street system and is roughly a half-mile from two major highways. The project attempts to mitigate environmental impacts to the maximum extent practicable by complying with zoning, employing necessary engineering practices into the design, and implementing numerous project impact avoidance and mitigation strategies (See* ***Section 2.0****). The planting of street trees, installation of decorative street lighting, the extensive landscaping to occur onsite, the erection of fencing, creation of an evergreen perimeter screening, and proposed elevated quality of the architecture of the homes will preserve and perhaps enhance scenic resources to the extent practicable. The development of the property with high end homes will provide additional tax revenues to the Village, County, State, and school district, and will also spur additional local spending in downtown areas, while providing numerous construction jobs. The property was not identified by Nassau County's Open Space Plan as a property that should be preserved as open space.*

Environmental Resources

- Protect and preserve the County's critical natural resources, including the wetlands, aquifers, shorelines, water bodies, open space, significant vegetation and nature preserves.

Response: *The property was not identified by Nassau County's Open Space Plan as a property that should be preserved as open space and the project sponsor has determined that the development of this private property, as proposed, is the best use of the land. There are no wetlands, waterbodies, shorelines, preserved open space, or nature preserves on the site. The Planning Board has identified three significant tree clusters on the property, which are bing protected under the Proposed Action. The property is situated within the North Hills SGPA. A review of the SGPA plan indicated that the project is not in conflict with the Plan's recommendations except that the land use map had recommended an institutional use. Use of sewers and various other groundwater protection techniques are being employed to preserve the integrity of this deep recharge area (see also* ***Sections 2.3.2, 2.3.3 and 2.4****).*

- Protect the quality and quantity of the County's groundwater and surface water resources.

Response: *The property is within the North Hills SGPA. The project is consistent with the recommendations of that plan with the exception of its recommended institutional land use. This recommendation appears to be more consistent with the fact that the property was institutional at the time the plan was prepared than actual impact mitigation as a large institutional use with significant landscaping could have a similar level of impact as single-family residences, especially since the area is sewered. The Applicant has coordinated with the Manhasset-Lakeville Water District (MLWD) and has been informed that the District is currently in compliance with its State-imposed water consumption cap.*

- Encourage the proper operation, maintenance and improvement of the wastewater treatment plants in the County.

Response: *The Nassau County Department of Public Works (NCDPW) maintains the local sewage system and treatment plant. Individual homeowners will be assessed fees for the use of*

the system which helps to finance maintenance and improvements to the system. A letter was sent to the County to inquire about its ability to serve the subdivision. The County has indicated that its sewerage system has the capacity to accommodate the anticipated wastewater flow of the subdivision and that its STP has the treatment capacity.

- Promote additional recycling of materials and support reliable options for disposal of non-recyclable solid waste.

Response: *This recommendation is primarily under the control of the County through community outreach, education, and any requirements it may impose for source separation. Individual solid waste carters may also have a role in the implementation of this planning policy.*

- Support the timely clean-up of contaminated sites and the proper disposal of hazardous materials.

Response: *Phase I and Limited Phase II ESAs were completed at the project site. An underground fuel storage tank was removed and contaminated sediment found in the former building's floor drains and the parking lot, as well as sediment in driveway storm drains have been removed. The project team is currently in the process of identifying an old sanitary system on-site and once located will ensure that the system is properly abandoned in conformance with NCHD requirements (**See Sections 2.3.2 and 2.3.3**). The project involves the creation of a 46-lot single-family residential subdivision. Natural gas is available in the ROW of Searingtown Road.*

Housing

- Encourage a diversified housing supply that consists of new residential construction, preservation and improvement of the existing housing stock, and reuse of vacant or underutilized buildings.

Response: *The proposed project reuses a formerly developed and currently vacant institutional property to provide new residential construction and expand the Village's housing stock.*

- Provide greater rental and homeownership opportunities for County residents.

Response: *The project will provide owner occupied dwellings instead of rental units but provides new homeowner opportunities. The single-family nature of this development provides greater diversity within the context of surrounding semi-attached multifamily residential development.*

The Economy

- Strengthen the County's economy by encouraging economic development activities which will provide jobs, increase the tax base, ensure a stable land use pattern, and diversify the County's employment sectors.

Response: *The proposed project does not involve the creation of new commercial or industrial land uses as it is located within a residential zone. It is, however, consistent with the above policy as the project will create temporary construction and permanent maintenance jobs and stimulate the local economy through local spending by construction and maintenance workers and future homeowners. The 46 high-end homes will generate significant tax revenues and ensure that more stable long-term land uses occupy the property, as opposed to the institutional land use that formerly occupied the site.*

- Support initiatives which are targeted at strengthening and improving the County's downtowns and Centers.

Response: *The proposed project does not involve the creation of new commercial or industrial land uses as it is located within a residential zone. The development of the subject property with 46 new residential lots, however, will create additional demand for goods and services in local commercial centers.*

Culture and Recreation

- Support the preservation of historic resources as key attributes to the quality of life and historic evolution of the region.

Response: *The property does not contain nor is it substantially contiguous to any significant cultural resources.*

- Provide sufficient parks, preserves, and recreational facilities to serve the current residents and growing segments of the population.

Response: *This is primarily a recommendation for the County to implement; however, the proposed project will include a private 3,000 SF GFA clubhouse and is located across the street from the Christopher Morley County Park which has numerous recreational facilities as well as open space to serve the expanding community.*

Community Facilities and Services

- Assure that there is an adequate system of public and private community facilities, as well as educational and social services to support current and future residents of Nassau County.

Response: *Letters were sent to community service and utility providers on October 7, 2014 to request information relating to the capabilities of providers to deliver the necessary services to the proposed subdivision. Letters containing positive responses have been received from the MLWD (drinking water), PSEG (electricity), Manhasset Union Free School District, and NCDPW (sewers). A follow up letter dated November 7, 2014 was subsequently sent to those service providers that had not yet responded (i.e., Manhasset-Lakeville Fire Department, Nassau County Police Department, National Grid, and North Shore University Hospital). To date, NP&V has not received a response from these service providers.*

Nassau County Open Space Plan - As the subject site was not recommended for acquisition for open space preservation purposes, this plan does not apply to the project.

The proposed project is consistent with the Village zoning code/comprehensive plan in terms of land use and is also consistent with the Nassau County Comprehensive Plan.

3.1.3 Proposed Mitigation

- In zoning the subject property Residential R-3, the Village deemed the site suitable for single-family residential development on lots of 20,000 SF or greater. It determined that such development would meet its land use goals and that this particular use, at its proposed

density, would be compatible with the envisioned development and land use pattern of the area. Several Planning Board waivers are requested for setbacks and roadway width/ROW width and gradient. ZBA variances are requested for several setbacks, including the gatehouse, the clubhouse/clubhouse parking area and retaining walls. To mitigate the proposed setback reductions, the subdivision design includes the retention of natural buffers and the planting of street trees and extensive perimeter landscaping (including a proposed evergreen screen around the disturbed perimeter of the property, see **Landscape and Street Lighting Plan, Attachment 1**).

3.2 Community Character

3.2.1 Existing Conditions

Visual Character

Appendix G contains photographs depicting the general appearance of the subject property and local community from the perspectives of observers on-site, from Christopher Morley County Park and walking or driving along Searingtown Road. As previously indicated, the 30.43-acre property is currently unoccupied and the former St. Ignatius retreat center building has been removed. Only a few accessory structures, including a pool house (Photo #14), shed (Photo #12), ±511 square foot masonry/wood building (Photos #2 and #28), former in-ground swimming pool (Photo #13), reflecting pool (Photo #22), decorative maze (Photos #8 and #19), parking lot (Photo #17), access driveway (Photo #26), and minor landscape features remain. With the exception of the masonry/wood building, which appears in relatively good condition, the remaining structures are in fair or poor physical condition.

The property contains a combination of gentle, moderate, and steeply sloping topography, including several small knolls on its north side, and more continuous "unidirectional" sloping topography to the south and east. Site vegetation consists of a large mowed field, primarily to the south, but also to the north of the former retreat home (Photos #8 and #16); mixed deciduous woodlands around the perimeters of the fields (Photo #5); a small stand of mature white pines to the east of the former retreat center (Photo #9); thick underbrush, especially on the east side of the property (Photo #5); and ornamental plantings and various minor landscape features that are dispersed throughout the site (Photo #26). The property contains native, nonnative, and invasive vegetation, but also includes a number of large mature trees (Photos #6, #21, #27, and #29).

The subject property is located on the top and side slopes of a large hill; however, views of adjacent low-lying properties are largely obstructed by the relatively broad expanses of site vegetation along the property's perimeter. Exceptions to completely restricted views of adjacent properties from the site during winter, include a minor glimpse of two park buildings through the trees from the east side of the property, looking east (Photo #5), and limited views of adjacent residences to the north, south, and west (Photos #25, #11, and #20); especially to the west. Aside from residential development in the area, a relatively large tract of vacant woodlands, serving as passive recreation for the public, exists to the east of the site on the north side of the County park (Photo #24).

Passersby traveling on adjacent roadways do not have significant on-site views of the property, as it is privately owned and there is currently no permanent occupation of the site. The site's interior cannot currently be seen by the public from Searingtown Road, which is a major throughway, due to thick vegetation and steep slopes, and only limited views of the interior of the property are available from adjacent privately owned residential developments; particularly, where the large open field on-site extends to the property boundaries to the south and west. . Motorists stopped at the traffic signal at the County Park entrance, near the southeast corner of the subject site (Photo #32), have the opportunity to briefly view the site's woodlands and steep ascending slope along the east side of the project site. Despite the existence of extensive site screening and buffering, the obstruction of views of the site from deciduous vegetation would be somewhat less obscured in the fall and winter, after trees have lost their foliage, than during the spring and summer seasons, when all is in bloom.

Based on the photographs and above description, it may be concluded that the property in its present condition does not currently offer unique or significant visual resources to the community with the exception of its generally wooded nature.

Lighting

There are currently a few street lights along the site's access driveway and in its parking areas (**Appendix G,** Photo #9). Since the property is currently unoccupied, and the main building has been removed, no other permanent outdoor lighting exists on-site. This lighting will be removed prior to site development.

3.2.2 Anticipated Impacts

Character

The proposed project will alter the visual character on and around the subject property by changing the use of the site from institutional to residential and increasing the overall density of development on the site. It is the Applicant's goal to develop a premier luxury residential community on the property. To achieve this goal, the Applicant retained a world renowned architectural firm, Gensler, to assist with the lot layout and to create the architectural design concepts for the future single family residential homes. The Applicant has worked with the project architect to prepare design guidelines that outline the proposed subdivision design intent (see **Appendix B-1**). These guidelines set forth a high standard of quality and provide visual controls for the proposed homes, as described from the Design Guidelines below:

> The Architectural Design Guidelines provide visual control for building massing, siting, style and color in order to obtain a varied streetscape appearance. The natural landscape setting and history of the site provides for the setting for this collection of contemporary homes. To achieve visual continuity and create a high standard of quality, all houses will have consistent architectural massing, materials, and detailing. The houses will use materials, colors and forms to create a sense of unique and luxurious modern living in an historic park-like setting. Individual house massing and facades will consist of simple and well-proportioned forms combined with a controlled use of materials, details and colors.

> Each house will be designed to work with the existing land forms and contours, to the greatest extent possible, in order to preserve the ambiance of the existing park-like setting. This "custom fit" to each site will provide variety beyond the five house models and will create a feeling of a community of bespoke luxury homes. Exterior materials will be durable and timeless, with landscaping that is integrated into the form of each house to create a seamless flow of indoor/outdoor living. Sustainable strategies will be incorporated into the home designs to provide both efficiency and energy savings. Privacy between houses, both visual and acoustical, is of paramount importance and will be achieved through a combination of building form and orientation, window placement, and landscape screening.

As demonstrated by the design guidelines, particular attention will be given to the architectural design, building materials and landscaping, interior and exterior layout of the site and homes, sustainability and common area maintenance. Careful planning of the layout and design of the future homes, guided by the Manhasset Crest Design Guidelines will help to ensure the character of the proposed subdivision does not adversely impact the surrounding community.

The existing character adjacent to the subject parcel is mixed, but includes numerous two-story semi-attached multifamily residences (typically containing four units per building); a County park with various recreational facilities including a large masonry building, golf course, swimming pools, playing fields and courts, a large surface parking lot, reflecting pool, and 30 acres of open space; and Searingtown Road/CR 101. Both of the adjacent multifamily residential communities have access off of Searingtown Road, gatehouses at their entrances, and 30-foot wide private streets with Belgium block curbing. The proposed project will result in some change in the visual appearance of subject site from the perspective of adjacent property owners and passersby on Searingtown Road and adjacent private streets. The proposed residences will be setback a minimum of 50 feet from adjacent land to the north, south and west; while the closest building to Searingtown Road (with the exception of the gatehouse which will be setback a total distance of 92 feet from the road) will be set back a minimum of 150 feet. All homes will comply with R-3 district's 35-foot building height standard and contain no more than $2^1/_2$ stories. Accessory structures, including potential pool and pool house locations, and detached garages in a limited location for Lots 24 and 25, have been included on the Preliminary Plans and are placed within the permitted setbacks of the R-3 District. Such accessory structures are typical of residential single family development, and will be subject to individual plot plan review by the Architectural Review Board pursuant to Chapter 12 of the Village Code. The new residential use is consistent with site zoning, the Nassau County Comprehensive Plan, the R-3 District's permissible subdivision density standards, and is compatible and suitably transitional to existing adjacent land uses.

Removal of the existing trees will open views to the site from some off-site vantage points, especially during the fall and winter months when deciduous trees shed their leaves. Existing natural vegetation will be retained along the perimeter of the property to the extent possible; particularly, on the southeastern side of the property, along Searingtown Road, where the buffer is as deep as 100 feet. The existing 25-foot deep, approximately 740-foot long, scenic easement located along the north side of the property will maintain the easement's existing vegetative screening. The proposed subdivision includes an extensive landscape plan to provide privacy and buffer the proposed development (see **Attachment 1, Landscape and Street Lighting**

Plan). As part of the subdivision improvements, the Applicant proposes the installation of evergreen screen comprised of a staggered double row of evergreen trees along the perimeter of the property were natural vegetation will be removed (see **Landscape and Street Lighting Plan, Attachment 1**). This evergreen buffer proposes species planted 10 to 12 feet in height to provide immediate screening of the proposed residences from adjacent properties. This proposed evergreen buffer planting will provide additional cover and screening each year as they mature. Street trees will be planted along both sides of each of the proposed streets, and will be spaced, on average, 40 feet on center. Numerous trees and shrubs, including both evergreen and deciduous species, will be provided along the shoulders of the emergency access lane, and along the main access road, within the main access road's median, and around the proposed stormwater recharge basin. Decorative street lighting will line one side of each of the streets and, like the street trees, will also be spaced at 40-foot intervals. The three clusters of large specimen European beech trees that exist within the interior of the property will also be preserved to provide visual interest and an additional layer of spot screening.

The angled alignment of the main access road relative to Searingtown Road and the serpentine alignment of the emergency access will obstruct views/view corridors into the interior of the subdivision from Searingtown Road. Extensive landscaping is proposed along the proposed emergency access road and around the proposed clubhouse parking lot to provide screening of these areas along Searingtown Road. This proposed landscaping and the retention of natural areas in the southeastern portion of the property will also screen the proposed retaining walls within the 150 foot setback along Searingtown Road. Individual lots will be landscaped after homes are constructed to further enhance residential privacy, the physical beauty and character of the development and area, and to screen and buffer any potentially undesirable aspects of development (see "**Typical Lot Planting Plan**" schematic provided on **Attachment 1, Landscape and Street Lighting Plan**).

To illustrate future conditions of the project site, photo simulations were generated by the project architect, Gensler (**Appendix B-2**). The photo-simulations are based on actual site photographs that were taken from Starling Court, looking north; Darters Lane, looking south; Estates Terrace, looking south/southeast; and Searingtown Road, looking north/northwest. These vantage points represent views of the site from the perspective of adjacent property owners, and passersby along Searingtown Road and the aforementioned private streets. The photo-simulations were created by merging several photographs from each location to provide a wider range of views (i.e. panoramic views) to the extent practicable. Modeled representations of the proposed single family dwellings were generated (located within the building envelopes provided on each lot) and added as transparent layers that were placed over the actual photographs utilizing software to simulate the proper location, heights and overall scale of the actual proposed conditions and to simulate future views of the area with the proposed units constructed. This simulation includes modeling of the proposed grading necessary for site development and depicts only the landscaping shown on the **Landscape and Street Lighting Plan** and the existing trees to remain. It is noted that the photo-simulations did not assume additional landscaping which would be placed on the individual lots development, which will provide additional screening of the site. The landscaping proposed assumes a ten year maturity; thus additional screening would be provided as the vegetation matures.

Lighting

Section 151 of the Village Code provides outdoor lighting regulations which include two provisions (§151-2 of the Village Code):

A. The upper beam or ray shall not project beyond the property line of the premises of the owner or occupant.
B. No light shall be directed upon any surface which shall reflect the beam or ray thereof beyond the property line of the premises of the owner or occupant.

The only lighting currently proposed by this residential subdivision is street lighting. Proposed street lights and street light locations are illustrated on the **Landscape and Street Lighting Plan**. The decorative lantern style street fixtures will be mounted on 15-foot poles. Based on the size of the property, locations of the streets and street lights, the height of street light fixtures, the planting of street trees, and the retention of trees and vegetated buffers, impacts to adjacent properties from excessive illumination from street lights, are not anticipated. Outdoor lighting for future homes is expected to include typical porch and rear yard patio lighting. The proposed street lighting fixtures are equipped with solid/opaque hoods to prevent light from being cast upwards and causing sky glow. As required by § 151-2, of Village Code, there will be no projection of lighting off site from the common lighting on the project site.

Noise

The ambient noise environment is characteristic of the surrounding land uses, including a transportation corridor (Searingtown Road and the Long Island Expressway farther south). The closest receptors include residential properties north and south of the subject property. It is expected that noise from vehicles on the adjacent roadways will continue to be the dominant source of noise on the site and in the surrounding area. The only significant source of noise which may be audible to nearby residents related to the residential use of the property under the proposed development is from traffic ingress and egress from the development. This traffic is a low volume and will proceed at low speeds due to the residential nature of the street; therefore will not cause a significant perceptible increase above ambient noise, particularly due to the vehicle traffic consisting of mainly passenger cars. Post development noise will be typical of a residential neighborhood and consistent with what currently exists, thus no significant noise-related impacts are expected to occur due to the residential use of the property.

3.2.3 Proposed Mitigation

- The change in the visual character of the site, from a wooded property to that of a developed residential site, will be mitigated by retention of buffers along the southeast corner of the property, an existing scenic easement on the north side of the site, retention of three specimen European beech tree clusters, installation of an evergreen screening trees along the disturbed perimeter, as well as the planting of street trees. As part of the subdivision improvements, an extensive planting plan is proposed, including an evergreen screen comprised of a staggered double row of evergreen trees will be planted (10-12 feet in height) along the perimeter of the property were natural vegetation will be removed (see **Landscape and Street Lighting Plan, Attachment 1**). This landscaping will provide perimeter buffers,

as well as screen the proposed clubhouse parking area, emergency access road and retaining walls proposed within the 150 foot setback from Searingtown Road.

- Design Guidelines that outline the proposed subdivision design intent and set forth a high standard of quality are proposed (see **Appendix B-1**), which will provide visual controls for the proposed homes. These Guidelines will enable the creation of a distinguished and high quality building design; intended to be visually attractive and consistent with the character of a luxury residential development.
- The proposed street lighting fixtures are equipped with solid/opaque hoods to prevent light from being cast upwards and causing sky glow. As required by § 151-2, of Village Code, there will be no projection of lighting off site from the common lighting on the project site.

3.3 Community Services

3.3.1 Existing Conditions

Socio-Economics

Table 3-2 below provides a summary of the current tax rates and the taxes that were paid for the site, based on the most recent tax bills (2013-14 Tax Year for the School District and 2014-15 Tax year for the County, Town and Village) provided by the Village of North Hills Tax Collector and the Nassau County Department of Assessment. At present, the existing assessed value for the site totals $29.2 million for Nassau County taxing purposes and $27.74 million for Village taxing purposes. Assuming such assessments and the current tax rates, the subject site generates a total of $532,721 in taxes annually. The Manhasset School District receives the largest single share of the taxes generated, $333,508 annually, or 62.6% of all taxes paid.

TABLE 3-2
TAX GENERATION AND DISTRIBUTION
Existing Conditions

Jurisdiction	**Tax Rate** ($ per $100 Assessed)	**Existing Tax Revenue** ($/year)	**Percent of Total Tax Revenue**
Total: School Tax	**484.763**	**$353,877**	**66.4%**
Manhasset School District	456.860	$333,508	62.6%
Library District	27.903	$20,369	3.8%
Total: County Tax	**195.630**	**$142,810**	**26.8%**
County General Fund	18.699	$13,650	2.6%
County Environmental Bond	1.851	$1,351	0.3%
Fire Prevention	3.036	$2,216	0.4%
Nassau Community College	9.820	$7,169	1.3%
County Police Headquarters	65.989	$48,172	9.0%
Storm Water Resources Zone of Assessment	3.202	$2,337	0.4%
Sewer Collection and Disposal Zone of Assessment	20.804	$15,187	2.9%
County Police	72.229	$52,727	9.9%
Total: Town Tax	**18.179**	**$13,271**	**2.5%**
Town General Fund	18.179	$13,271	2.5%
Total: Special District Tax	**31.160**	**$22,747**	**4.3%**
Manhasset-Lakeville Water District	8.756	$6,392	1.2%
Manhasset-Lakeville Fire District	18.453	$13,471	2.5%
Manhasset Park District	3.951	$2,884	0.5%
Total: Village Tax	**0.0247**	**$17**	**< 0.1%**
Village of North Hills	0.0247*	$17	< 0.1%
TOTAL: ALL TAXING JURISDICTIONS	**729.757**	**$532,721**	**100.0%**
* It is important to note that the Village tax rate of 0.0247/$100 assessed valuation represents the industrial tax rate, which is currently used under existing conditions.			

Public Schools

The property of interest is located within the Manhasset Union Free School District (MUFSD). The MUFSD contains four schools: Munsey Park Elementary, Shelter Rock Elementary, Manhasset Middle School, and Manhasset High School. **Figure 3-4** provides the site location in relation to nearby schools and district boundaries. **Table 3-2** provides historic enrollment data for each of the schools over the 2002 to 2012 10-year time period. Based on these data, the total MUFSD enrollment increased by 569 students or 21.7 percent from 2,624, during the 2002-03 school year, to 3,193 during 2011-12. Based on an electronic response received from the MUFSD dated December 12, 2014, the current enrollment as of October 1, 2014 was 3,339 (863 - Munsey Park Elementary School, 786 - Shelter Rock Elementary, 596 –Manhasset Middle School, and 1,094 - Manhasset High School, see **Appendix A**). This represents an 18.4 percent increase (or an increase of 520 students) in the last ten years. The District indicated that "based on their current 2013-2014 projections, enrollments are project to remain reasonably within the

range of current enrollments" (see **Appendix A**). The subject property is zoned within the Shelter Rock Elementary School.

TABLE 3-3
10-YEAR ENROLLMENT DATA
Manhasset UFSD

School	Grades	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Change in Enrollment: 2002-03 to 2011-12
Munsey Park Elementary	K-6	657	753	805	857	852	885	899	953	942	925	40.8%
Shelter Rock Elementary	K-6	754	753	783	764	790	799	773	775	772	760	0.8%
Manhasset Middle School	7-8	428	424	441	463	468	488	516	492	530	571	33.4%
Manhasset High School	9-12	785	770	790	785	789	833	831	892	922	937	19.4%
Totals		**2,624**	**2,700**	**2,819**	**2,869**	**2,899**	**3,005**	**3,019**	**3,112**	**3,166**	**3,193**	**21.7%**

The former retreat center land use did not add children to the public school system but was also tax exempt. During the 2013-14 tax year, over $333,000 in tax revenues were generated by the subject property and levied for the MUFSD.

Police Protection

The subject property is served by the Nassau County Police Department (NCPD). The NCPD patrols the area and the precinct is just 3 miles and less than 10 minutes from the subject property. **Figure 3-5** provides the site location in relation to district boundaries and facilities. The NCPD hires new officers, purchases new equipment, and provides necessary training to meet the growing demands of the public. The Department pays for its services, equipment and training through property taxes according to the assessment of site improvements. Currently, the subject site generates $52,727 to the County Police Department and an additional $48,172 to the County Police Headquarters. Letters were sent to the Nassau County Police Department's 3rd Precinct on September 12, 2014 and November 7, 2014 to request input from the Department (**Appendix A**). As of the date of completion of this DEIS, no response had been received.

Fire Protection

Fire protection for the project site is provided by the Manhasset-Lakeville Fire District (MLFD). The MLFD is staffed by volunteers and has been providing services since 1912. The District encompasses over ten square miles and has a residential population of over 44,000. Services provided by the District include fire, rescue, and medical emergency services, including structural fires, technical and heavy rescue, elevator rescue, water rescue, haz-mat, vehicle extrication, and all types of medical emergencies.

The District has five separate companies that are distributed throughout the area, as well as ambulance and fire police units and operates a number of emergency response vehicles:

- 8 fire engines
- 4 ladder trucks
- 2 rescue vehicles
- 1 squad rescue pumper
- 2 ambulances
- 5 Chief SUVs
- 1 EMS first response vehicle
- 1 water rescue van
- 1 fire police unit van
- 2 department vans

Companies 1 and 2 are primarily responsible for serving the North Hills community. **Figure 3-5** provides the site location in relation to district boundaries and facilities. According to the District:

> Company 1 is located on Bayview Avenue in Manhasset and serves North Hills, Manhasset, Plandome Heights, Flower Hill, Munsey Park, and Strathmore and responds to over 550 incidents yearly. The Company's apparatus include: Engine 8711, Engine 8712, and Rescue 8713.
>
> Company 2 is located off of Community Drive East in Manhasset and is one of two ladder companies in the District. Company 2 serves North Hills, Manhasset, Plandome Heights, Flower Hill, Munsey Park, and Strathmore. The Company's current apparatus include: Quint 8728, Tower Ladder 8724, and Engine 8725. Company 2 is the busiest of all five Manhasset-Lakeville fire companies and responds to over 650 incidents yearly. Company 2 is also the home of the Manhasset-Lakeville Fire Department's Training Center, which includes two separate firefighting training props for all department members to use, and houses the District's Police Unit Van (8790).
>
> The District's Ambulance Unit was founded in August 1988 and is currently located at the Company 3 firehouse on Prospect Street in the Thomaston section of Great Neck. It currently utilizes two ambulances (8768 and 8769), which are both well-powered Advanced Life support (BLS/ALS) vehicles and is also equipped with EMS First Response Vehicle 8799. All three pieces of apparatus are equipped with contemporary life-saving equipment.
>
> Members of the Ambulance Unit are certified as New York State Emergency Medical Technicians (EMT), whom are trained in semi-automatic defibrillation and Advanced Emergency Medical Technicians-Critical Care (AEMT-CC), whom in addition to basic EMT skills, are capable of manual defibrillation; starting intravenous lines (IV); administering medications; and endotracheal intubation. In 2012, the Unit responded to over 800 ambulance and/or rescue calls.

Currently, the subject site generates $13,471 in tax revenues to the MLFD. Letters were sent to the MLFD on September 12, 2014 and November 7, 2014 to obtain additional information regarding its facilities, equipment and manpower, its ability to serve the proposed subdivision, and any other information it would like to provide. As of the date of completion of this DEIS, no response has been received.

Hospitals

Medical facilities located in close proximity to the subject property include the North Shore University Hospital (located at 300 Community Drive in Manhasset) and the Long Island Jewish Medical Center (located at 270-05 76th Avenue in New Hyde Park). The North Shore University Hospital has 806 beds devoted to adult medicine, oncology, rehabilitation and emergency services, among other professional medical services. The hospital also serves as a campus for the New York University School of Medicine and is home to the Don Monti Caner Center (largest cancer care facility) and the Sandra Atlas Bass Cardiology Center. The Long Island Jewish Medical Center is an 840 bed voluntary, non-profit tertiary care teaching hospital. The Long Island Jewish Medical Center is comprised of three divisions: the Long Island Jewish Hospital (approximately 450 bed tertiary adult care hospital with advanced diagnostic and treatment technology and modern facilities for medical, surgical, dental and obstetrical care, the Heart Institute, Pain and Headache Treatment Center, Pulmonary programs, the Center for New Life, and the Institute of Oncology), Schneider Children's Hospital (for pediatrics) and the Zucker Hillside Hospital (for psychiatric care).

Recreation

The subject property is located in the Manhasset Park District. **Figure 3-6** provides the site location in relation to nearby recreational facilities. Existing recreational facilities in close proximity to the site include Christopher Morley County Park and the privately owned Shelter Rock Tennis and Country Club. Christopher Morley County Park is located directly across the street, to the east of the site, at 500 Searingtown Road. The 98-acre park provides a wide variety of recreational facilities for county residents with varying interests and fitness levels and is conveniently located for use by future residents of the proposed subdivision. Facilities and activities that are currently available to Nassau County residents at Christopher Morley County Park include:

- A 9-hole, par-30, golf course
- three baseball/softball fields
- five tennis courts
- basketball courts
- volleyball court
- lighted handball and paddle board courts
- Olympic-sized swimming pool
- diving tank
- showers and lockers
- 200-foot by 80-foot ice skating rink
- playground
- reflecting pond
- horseshoe and shuffleboard courts
- 140-foot by 30-foot boat basin for model boats
- dog run
- 30-acres of vacant wooded land containing nature trails for hiking and jogging
- Fitness trail with numerous exercise and stretching stations
- Farmers market (periodically)

Shelter Rock Tennis and Country Club is privately owned and is not open to the general public but could serve future residents who become members. The Club is located approximately 750 feet to the south of the project site at 100 Long Island Expressway in North Hills. The club has 27 tennis courts, including 7 indoor courts, as well as swimming pools, and a clubhouse.

The current property owner pays $2,884 annually to the Manhasset Park District.

Water Supply

The proposed subdivision is located within the Manhasset-Lakeville Water District (MLWD). **Figure 3-7** provides the site location in relation to district boundaries and facilities. A water main is currently available to the site and the project sponsor will seek permission for a connection that will serve the proposed 46-lot residential subdivision with potable drinking water. The site is currently unoccupied and does not draw water from the public water supply.

The MLWD provides a wealth of information on its official website and through its annual Water Quality Report and Pumpage Reports. The District was established in 1911 making it one of the oldest public water suppliers on Long Island. The MLWD has over 10,500 service connections and serves over 43,000 people within a 10.2 square mile area and its largest consumer is North Shore University Hospital. The total volume of water produced in 2013 was 2.54 billion gallons or, on average, 6.96 million gallons per day. The total volume of water delivered to customers in 2013 was 2.29 billion gallons, indicating that 0.25 billion gallons or 9.8 percent of the total produced, were used for firefighting and flushing mains or were lost due to leaks in the system. The maximum monthly usage in 2013 was in 345 million gallons and the minimum was 115 million in February of that year. (MLWD, 2014)

The district receives its supply of water from eighteen (18) separate wells located at thirteen (13) different locations throughout the Manhasset-Lakeville area. Fourteen wells are completed in the Magothy aquifer at depths ranging between 100 and 470 feet and four (4) wells are drilled into the deeper Lloyd aquifer at depths reaching 700 feet. The MLWD's average annual pumpage is 2.49 billion gallons. Its average winter usage is 5.0 million gallons/day; its summer usage is 13.0 million gallons/day on average; and its overall average daily consumption is 7.4 million gallons. The maximum daily usage has been as high as 18.3 million gallons.

The District has six treatment plants, two elevated storage tanks, two underground storage tanks and approximately 20 employees. The total volume of storage is 5.5 million gallons with the two underground tanks holding a combined 4 million gallons; while the two elevated tanks contain a combined total of 1.5 million gallons.

Raw water treatment varies depending on water quality. The process involves disinfection, pH adjustment, aeration, and adsorption. The District maintains a minimum chlorine residual of 0.2 ppm as required by the NYS Department of Health and all distribution water is in strict compliance with New York State guidelines for potable water. Currently, nine MLWD wells are being treated for the removal of elevated levels of volatile organic compounds. Packed aeration towers (air strippers) or Granular Activated Carbon (GAC) filters are used to remove these organic constituents. The raw water's pH is raised to between 7.5 and 8.0 by the addition of a 25% sodium hydroxide solution (i.e., caustic soda). Since aeration also increases the pH of raw

water, MLWD wells, that are aerated, are not treated with sodium hydroxide. Three wells have been removed from service as part of the offsite remediation plan associated with the former Lockheed Martin site in Lake Success. One well has been removed from service for elevated nitrate levels.

In case of an emergency, the District has six interconnections with neighboring districts (Port Washington, the Water Authority of Great Neck North, Albertson, Garden City Park and the Western Nassau Water Authority). Every gallon of water that is consumed by District users is metered and recorded by computer and billed accordingly.

Water Cap

As indicated in its Pumpage Report for 2013, the MLWD was assigned a One-Year Maximum Pumpage Cap by the NYSDEC of 2,851 million gallons, and a Five-Year Running Cap of 2,600 million gallons **(Appendix A)**. During 2013 the District pumped a total of 2,540 million gallons, or 311 million gallons less than the one-year maximum. The current five-year (running) pumpage in the MLWD averaged 2,442 million gallons, which is 158 million gallons below its corresponding Five-Year Running Cap.

Wastewater Treatment

Development in the area is served by Nassau County Sewer District 2 and is conveyed to Bay Park Sewage Treatment Plant where it is treated and discharged. **Figure 3-7** provides the site location in relation to district boundaries and facilities. The former institutional use that wads located on the subject property was apparently served by an on-site sanitary system rather than Nassau County Sewer District 2. The sanitary system will be located and properly removed in accordance with NCHD requirements. The property is presently unoccupied and therefore is no longer generating wastewater with the exception of the very little flow generated by on-site demolition crews, site security, and other workmen. Onsite workers currently use portable toilets that are periodically pumped and the waste is transported off-site for disposal.

Solid Waste Handling/Recycling

Figure 3-8 provides the site location in relation to district boundaries. Since the principal structure has been removed from the site, no solid waste is currently generated with the exception of any remaining demolition debris to be removed. As with previous site preparation activities, the remaining debris and demolition materials will be removed from the site and disposed at a licensed construction and demolition (C&D) disposal facility.

Energy

The subject subdivision will consume electricity supplied by PSEG Long Island which according to the utility, will be provided to the proposed development in accordance with its filed tariff schedules in effect at the time service is required. Natural gas supplies to the area are provided by National Grid. National Grid has a service line installed within the ROW of Searingtown Road but to date had not responded to letters inquiring about utility availability and capacity.

3.3.2 Anticipated Impacts

Socio-Economics

Many of the Village and County's community services and facilities are supported in large part by the revenues generated through property taxes. The Village of North Hills and Nassau County, as well as other local taxing jurisdictions will greatly benefit from an increase in such property tax revenues, resulting from the proposed project.

The projected selling price, and associated valuation for the proposed project was determined based on an analysis of comparable newly constructed housing units currently listed for sale as well as those that were recently sold within surrounding neighborhoods (including but not limited to Munsey Park, Strathmore Village, North Hills, Stone Hill, Flower Hill and Plandome Manor) in the Manhasset UFSD. A search of properties in October 2014 yielded a total of 17 comparable units, which were at least four (4) bedrooms in size, and built since 2000. More specifically, the sizes of the comparable homes ranged in size from 4,000 SF to upward of 9,000 SF, with four (4) to (7) bedrooms, and situated on anywhere from 0.25 acres to 2+ acres. The comparable housing units yielded an average listing/sales price of approximately $3.55 million. While all units were built between 2000 and 2014, the majority of the comparable units were built prior to 2010. Likewise, the majority of units were situated on smaller parcels than the proposed project. As such, and since the proposed project will be brand new, high end construction on a larger lot, a sales price adjustment of an additional $500,000 was assumed for the purpose of this analysis given the quality and features planned for the proposed development. Given these assumptions, this generates a conservative sales price of approximately $3.6 million per unit, totaling $165.6 million for the 46 new single-family units proposed. This is in line with other neighboring properties in the immediate vicinity of the subject site.

For the purpose of this analysis, the projected selling price of $3.6 million per unit is assumed to equal the valuation at the time of sale. When applied to a 0.25% equalization rate, this yields an assessment of $9,000 per unit, or $414,000 for the proposed project. Current Class I tax rates totaling 729.757 (per $100 assessed valuation) can be applied to this assessment in order to project the impact that the proposed project will have on the local tax base. **Table 3-9** shows the current tax rates and revenues that are projected to be levied from the build-out of the proposed project. The information provided in the table was derived from the current assessment factors and tax rates provided by the Village of North Hills and Nassau County Department of Assessment, as well as the total projected assessment. It is important to note that all analyses are based on current tax dollars, and the revenue allotted among taxing jurisdictions will vary from year to year, depending on the market conditions, annual tax rates, assessment and equalization rates. Further, the final assessment and levy will be determined by the sole assessor at the time of occupancy. Projections included herein are as accurate as possible using fiscal impact methodologies, for the purpose of the planning and land use approval process.

The proposed development will significantly increase taxes generated by the subject property, resulting in a substantial increase in revenues distributed to each taxing jurisdiction. At the time of full build-out and occupancy, the proposed project is projected to generate over $3.0 million in annual taxes. This represents a net increase of over $2.48 million per year when compared to existing site conditions.

Table 3-4
TAX GENERATION AND DISTRIBUTION
Existing Conditions vs. Proposed Project

Jurisdiction	**Tax Rate** ($ per $100 Assessed)	**Existing Tax Revenue** ($/year)	**Projected Tax Revenue**	**Change in Tax Revenue**
Total: School Tax	**484.763**	**$353,877**	**$2,006,919**	**$1,653,042**
Manhasset School District	456.860	$333,508	$1,891,400	$1,557,893
Library District	27.903	$20,369	$115,518	$95,149
Total: County Tax	**195.630**	**$142,810**	**$809,908**	**$667,098**
County General Fund	18.699	$13,650	$77,414	$63,764
County Environmental Bond	1.851	$1,351	$7,663	$6,312
Fire Prevention	3.036	$2,216	$12,569	$10,353
Nassau Community College	9.820	$7,169	$40,655	$33,486
County Police Headquarters	65.989	$48,172	$273,194	$225,022
Storm Water Resources Zone of Assessment	3.202	$2,337	$13,256	$10,919
Sewer Collection and Disposal Zone of Assessment	20.804	$15,187	$86,129	$70,942
County Police	72.229	$52,727	$299,028	$246,301
Total: Town Tax	**18.179**	**$13,271**	**$75,261**	**$61,990**
Town General Fund	18.179	$13,271	$75,261	$61,990
Total: Special District Tax	**31.160**	**$22,747**	**$129,002**	**$106,256**
Manhasset-Lakeville Water District	8.756	$6,392	$36,250	$29,858
Manhasset-Lakeville Fire District	18.453	$13,471	$76,395	$62,925
Manhasset Park District	3.951	$2,884	$16,357	$13,473
Total: Village Tax	**0.1194**	**$17**	**$494**	$477
Village of North Hills	0.1194*	$17	$494	$477
TOTAL: ALL TAXING JURISDICTIONS	**729.757**	**$532,721**	**$3,021,585**	**$2,488,863**

* It is important to note that the Village tax rate of 0.1194/$100 assessed valuation represents the residential tax rate, which is assumed for the projected residential development for the purpose of this analysis.

Public Schools

According to residential demographic multipliers published by the Center for Urban Policy Research at Rutgers University (Burchell et al, 2006), a five-bedroom, owner-occupied single family residence valued at greater than $748,500 will generate approximately 1.47 school age children per home. Based on this multiplier, it is estimated that the proposed project will generate approximately 68 school-aged children. According to the U.S. Census Bureau, approximately 11.8% of all students residing within the boundaries of the Manhasset UFSD attend private schools. For the purpose of this analysis, and in an effort to illustrate a conservative projection, it is assumed that this factor will remain constant, and as such it is projected that eight (8) of the 68 school-aged children will attend private schools in the area. The remaining 60 school-aged children will likely attend public schools located within the Manhasset School District. It is noted that the projected 60 additional school age children would

be spread over all grade levels, and would occur over time, as the homes are constructed and sold based on market conditions.

According to electronic correspondence from the Manhasset School District (**Appendix A**), the latest available independent report on per pupil expenditures is the *Forty-Seventh Annual Study of School Costs Based on 2012-13 School Costs* prepared by Nassau BOCES. This report indicates that Manhasset's 2012-13 per pupil costs based on actual gross expenditures is $27,007. Therefore, the projected 60 additional students will result in $1.62 million in expenditures per academic year. The estimated tax revenues generated by the proposed project are $1.89 million based on the current tax rates and property assessment described. This results in a net increase in revenue of approximately $270,980 per year. A summary of the impact to the school district is shown in **Table 3-5.**

Table 3-5
IMPACT TO SCHOOL DISTRICT: PROPOSED PROJECT

	Total: All Students
Student Enrollment: Manhasset School District (2014)	3,339
Number of Additional School Children Total	68
Number of Additional School Children Projected to be Enrolled in Public Schools (Manhasset School District)	60
Expenditure per Pupil	$27,007
Additional Expenditures for 60 pupils	$1,620,420
Projected Tax Revenue Allocated to Manhasset School District	$1,891,400
Net Revenue: Manhasset School District	**$270,980**

Police Protection

The subject property is within the 3rd Precinct North, which serves thousands of homes within the communities of East Hills, Flower Hill Great Neck Plaza, Harbor Hills, Manorhaven, Munsey Park, North Hills, Plandome, Plandome Manor, Plandome Heights, Roslyn, Roslyn Estates, Roslyn Harbor, Russell Gardens, Saddle Rock, Sea Cliff, Thomaston, Glen Head, Glenwood Landing, Great Neck, Greenvale, Manhasset, Roslyn Heights and University Gardens. The proposed construction of 46 single family homes on the subject property, which will be provided with an on-site security service and a gatehouse with an attendant is not anticipated to significantly impact the police protection services.

Based on the 2014 tax rates, it is estimated that the proposed project would generate approximately $299,028 per year in taxes allocated to the County Police Department. Moreover, approximately $273,194 would be levied to the Nassau County Police Headquarters.

Fire Protection

The Fire District currently serves a residential population of approximately 44,000. The district provides fire protection and ambulance services within the district. The proposed 46 homes and associated population of approximately 196 people represent less than 0.5 percent increase of the existing population served by the District. The homes will be new construction, conforming to the requirements of the NYS Fire and Building Codes. Fire/smoke detectors will be installed as new homes to render early warning of any fire incidents until professional assistance arrives. Adherence to the NYS Fire and Building Codes will increase the level of safety from fires and minimize the potential for use of ambulance services. The main site and emergency accesses and proposed streets will be designed to accommodate emergency response vehicles. Homes will be no taller than 2.5 stories and 35 feet in height, and will be served by public water and fire hydrants.

The MLFD is a volunteer organization which is funded by property taxes, donations, and other community fundraising efforts. Based on the 2014 tax rates, it is estimated that the proposed project would generate approximately $76,395 per year in taxes allocated to the MLFD.

Recreation

The proposed project will result in a greater number of residents living within close proximity to Christopher Morley County Park. The park is a large public facility providing a variety of passive and active recreational opportunities to County residents. Any increase in visitation to the park from the proposed subdivision is likely to be insignificant in light of the limited number of new residents anticipated which is but a fraction of the County and park district populations. Moreover, any such demand would likely be at least partially offset by the 3,000 SF clubhouse that is planned for the subdivision property and made available for the exclusive use and enjoyment of its residents and their guests. The developed subdivision will generate an estimated $16,357 annually for the Manhasset Park District which is $13,473 more than what is currently generated.

Solid Waste Handling

The proposed residential use is expected to generate approximately 858 lbs/day (or 12.87 tons/month) of solid waste based on a multiplier of 4.4 lbs per capita (USEPA, 2011) and the estimated total subdivision population of 195 (Burchell *et al* (2006) (see **Table 1-1**). Solid waste will be removed by a private carter in accordance with the requirements of Chapter 183 of the Village Code and disposed of at the Town of North Hempstead's Transfer Station. According to the Town's 2013 Solid Waste Management Authority Report, the overall throughput of waste to the transfer station slightly decreased from 223,000 tons to 218,000 tons of waste processed through the facility from the previous two years. The facility operates as a 225,000 ton per year transfer station. The proposed annual solid waste generation from the proposed subdivision represents 0.0069 percent of the total waste volume of the Town facility.

It is not anticipated that any toxic or hazardous waste will be generated, stored or used on the site other than small quantities of household cleaners. The type and volume of solid wastes generated by the project are not expected to have a significant impact on the operation of the Town facility. As a result, impacts from solid waste generated by the proposed project or to solid waste handling facilities are not anticipated.

Water Supply

The volume of potable water required by the proposed project is assumed to be the same as the capacity of the wastewater system for the project, which is based on NCDH design flow requirements. As calculated in **Table 1-1**, the project is expected to generate approximately 13,800 gpd of wastewater from the proposed 46 single-family residential units (based on NCDH design flow criteria of 300 gpd for single family homes discharging to the municipal sewer). In addition, an estimated 900 gpd is expected to be needed to serve the proposed clubhouse based on 0.3 gpd/sf of clubhouse space for a 3,000 SF GFA building (**Table 1-1**). An additional 29,525 gpd is estimated to be necessary for irrigation purposes based on a projected irrigation rate of 16.0 inches/year for the 18.9 acres of lawn and landscaped area anticipated. Adding this volume to the projected domestic water use of 14,700 gpd indicates a total projected water demand of 44,225 gpd.

The proposed homes will be equipped with modern plumbing fixtures and mechanical systems that meet current day building standards. These systems are expected to have superior quality and efficiency when compared to the systems installed in older residences.

NP&V sent a letter to the MLWD dated September 12, 2014 to request additional information (**Appendix A)**. The MLWD Board of Commissioners responded to this request by letter dated October 7, 2014 which contained a map of the district's "Zone System;" the location of existing water mains in the area; monthly pumpage data for 2012, 2013, and January through August 2014, as well as the five-year monthly average; and applicable sections of the 2013 MLWD Water Quality Report. The letter and attached report also contains the following comments or information:

- [W]ater is available for the project subject to the owner signing a developer's agreement to expand the District's infrastructure as required to provide the requested water service.
- The public supply wells in the vicinity of the project all have trace VOC contamination. The water from these wells is treated by aeration or carbon filtration prior to entering the distribution system.
- The elevation of this area requires a dedicated pumping system for service.
- The "Zone System" may need to be expanded to serve the proposed subdivision.
- The District is [in] compliance with the NYSDEC pumpage cap.

The full MLWD Board of Commissioners letter is provided in **Appendix A**.

Wastewater Treatment

As indicated above, the project is expected to generate a total of 14,700 gpd of wastewater. The Nassau County Department of Public Works (NCDPW) has indicated by letter dated October 6, 2014 and on sewer maps that were attached (**Appendix A**) that an 8-inch County sewer main is available on the west side of Searingtown Road along the property's road frontage. This letter further indicates that the existing sanitary sewer collection system has sufficient capacity for the discharge of approximately 14,700 gallons per day for the subdivision and that the Bay Park Sewage Treatment Plant has sufficient treatment capacity for the anticipated flows. The future

property owners association will be responsible for maintaining the sanitary sewers within the development as they will be held in private ownership.

Energy

The proposed project will increase the electrical and natural gas consumption in the area, requiring extensions of the electrical and natural gas distribution networks on to and throughout the 30.43-acre property to service the 46 new homes. A letter was sent to PSEG to request the availability of service to the subdivision and a response was received September 22, 2014 from Carolyn Mackin, Manager of the Customer Order Fulfillment Department, stating that:

> "…please be advised that PSEG will provide service to the above referenced project in accordance with our filed tariff and schedules in effect at the time service is required." (**Appendix A**)

Two letters were also sent to National Grid who operates a natural gas line that is installed within Searingtown Road and passes the subject property. To date, no response has been received from the utility. Like PSEG, National Grid routinely provides service to customers in accordance with its tariff schedules where facilities are available. It is not expected that a significant impact to energy supplies will occur from the proposed subdivision.

3.3.3 Proposed Mitigation

- The proposed project will result in a significant increase in the amount of property taxes generated on the site. As a result, tax revenues generated from the project will offset at least a portion of the increased costs for community services to serve the project.

- The proposed project will be provided with an on-site security staff along with an automated security gate at the main access. An additional access/egress will also be provided south of the main access for use in emergency situations only. This emergency access/egress will be equipped with a crash gate to prevent unauthorized use but to ensure access and egress in the event of a major emergency. The site and each home will be fully accessible by emergency services including both the main and emergency accesses and all streets.

- Adherence to the NYS Fire and Building Codes will increase the level of safety from fires and minimize the potential for use of ambulance services. In addition, use of fire/smoke alarms will assist in minimizing the incremental increase in the potential need for fire protective services and fire hydrants will be installed as required to ensure the availability of water for firefighting purposes.

- The Manhasset Crest Design Guidelines (**Appendix B-1**) include sustainability requirements which will provide for energy efficiency and water use savings. These include compliance with the following:
    - All homes will achieve WaterSense label (an U.S. Environmental Protection Agency, "EPA" Partnership Program[1]), which are designed to reduce residential water use indoors and out by approximately 20 percent, allowing homeowners to use less water and energy.

[1] http://www3.epa.gov/watersense/

Design considerations include demand-controlled recirculating hot water systems and WaterSense labeled fixtures for kitchens and bathrooms.

- All homes will meet Energy Star homes design standards, which provide energy efficiency savings of up to 30%, including excellent air sealing, appropriately-sized mechanical equipment, and proper ventilation in bathrooms and kitchens.
- All homes will meet EPA Indoor airPLUS labeling in conjunction with the Energy Star label. This label requires installation of features that do not introduce pollutants to the air in and around the home during construction and occupancy

3.4 Transportation

3.4.1 Existing Conditions

A Traffic Impact Study (TIS) has been prepared for the project by Nelson & Pope. The TIS dated September 2015 evaluates a prior development scenario for the site that had the same access location but involved 47 single-family residential lots instead of the 46 currently proposed. Using the 47-lot scenario, therefore, provides a more conservative assessment of the possibility for traffic related impacts from the project. The TIS consists of a detailed examination of the existing roadway characteristics, current traffic conditions, estimations of the traffic volume and patterns the development will generate during peak hours, and analysis of the effect of this additional volume will have on the surrounding roadway network.

The proposed 46-lot subdivision would take access from a single road located off of Searingtown Road, approximately 850 feet north of the intersection of Estates Terrace South and the access to Christopher Morley County Park and an estimated 950 feet south of the intersection of Searingtown Road, Estates Terrace North and Dianas Trail. Surrounding properties in the general vicinity of the site consist of a mix of single-family and multifamily residential development, a religious institution, the County Park and commercial land uses. A summary of the TIS is included below. The full TIS, including its methodologies, tables, figures, supporting data, and conclusions, is provided in **Appendix H**.

Roadway Conditions

Searingtown Road is an arterial roadway under the jurisdiction of the County of Nassau with a general north/south orientation. In the vicinity of the site, Searingtown Road provides two lanes per travel direction. This section of roadway is relatively flat and straight with a posted speed limit of 35 mph and carries an average annual daily traffic (AADT) volume of approximately 34,807 vehicles per day (**NYSDOT Traffic Volume Report, 2011**). The land uses along Searingtown Road in the vicinity of the site are a mix of residential, commercial and vacant lands.

Estates Terrace North/South is a local roadway which provides access to a gated residential development. This roadway extends west from Searingtown Road and provides one lane per travel direction. Estates Terrace South intersects Searingtown Road opposite the entrance to Christopher Morley County Park. Estates Terrace North intersects Searingtown Road opposite Dianas Trail.

LIE North Service Road is a westbound arterial roadway owned by New York State and maintained by Nassau County. In the vicinity of the study area it provides three westbound lanes with exclusive turn lanes at key intersections. The posted speed limit is 45 mph.

LIE South Service Road is an eastbound arterial roadway by New York State and maintained by Nassau County. In the vicinity of the study area it provides three eastbound lanes with exclusive turn lanes at key intersections. The posted speed limit is 45 mph.

Table 3-6 summarizes the lane configurations and traffic controls at the study intersections.

TABLE 3-6
INTERSECTION GEOMETRY

Intersection	Approach	Lane Designation*	Traffic Control
Searingtown Road and LIE South Service Road	EB NB SB	L-LT-T-TR 2T-R 2L-T	Signal Controlled; (channelized right-turn lane on northbound approach not controlled by signal)
Searingtown Road and LIE North Service Road	WB NB SB	LT-T-TR-R L-2T 3T-R	Signal Controlled
Searingtown Road and Estates Terrace South/ Christopher Morley Park	EB WB NB SB	LT-R L-TR-R L-T-TR L-T-TR	Signal Controlled; (channelized right-turn lane on westbound approach not controlled by signal)
Searingtown Road and Estates Terrace North/ Dianas Trail	EB WB NB SB	LT-R LTR L-T-TR L-T-TR	Signal Controlled

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

Accident History

Accident data for the sections of roadways and intersections in the vicinity of the site was obtained from the NYSDOT. The NYSDOT provided the most recent data available (from October 2010 to September 2013). The available data were reviewed and summarized in the following tables.

TABLE 3-7
ACCIDENT SUMMARY BY SEVERITY

Location	Accident Severity			
	Fatality	Injury	Property Damage	TOTAL
Searingtown Rd and Estates Terrace North	-	5	12	17
Searingtown Rd between Estates Terrace North and Site Access	1	1	1	3
Searingtown Rd and Site Access	-	-	-	0
Searingtown Rd between Site Access and Estates Terrace South	-	2	-	2
Searingtown Rd and Estates Terrace South	-	6	6	12
Searingtown Rd between Estates Terrace South and Tiffany Circle	-	-	4	4
Searingtown Rd and Tiffany Circle	-	-	1	1
Searingtown Rd between Tiffany Circle and LIE North Service Rd	-	3	3	6
LIE North Service Rd and Searingtown Rd	-	13	14	27
Searingtown Rd between LIE North Service Rd and LIE South Service Rd	-	-	1	1
LIE South Service Rd and Searingtown Rd	-	4	19	23
Total	1 *1%*	34 *35%*	61 *64%*	96 *100%*

Table 3-7 indicates a total of 96 accidents occurred at or in the vicinity of the study area during the analysis period. The majority of accidents, 64%, involved property damage only. There was one fatal accident during the study period, which occurred between Estates Terrace North and the Site Access on southbound Searingtown Road. This accident involved a motorist striking a tree while travelling at an unsafe speed.

TABLE 3-8
ACCIDENT SUMMARY BY TYPE OF COLLISION

Location	Accident Type										
	Right Angle	Rear End	Head On	Left Turn	Right Turn	Fixed Object	Ped/ Bicycle	Overtk	Side swipe	Other/ Unknown	Total
Searingtown Rd and Estates Terrace North	2	11	-	-	-	2	-	-	-	2	17
Searingtown Rd between Estates Terrace North and Site Access	-	-	1	-	-	1*	-	1	-	-	3
Searingtown Rd and Site Access	-	-	-	-	-	-	-	-	-	-	0
Searingtown Rd between Site Access and Estates Terrace South	-	1	1	-	-	-	-	-	-	-	2
Searingtown Rd and Estates Terrace South	1	6	-	1	-	-	-	1	-	3	12
Searingtown Rd between Estates Terrace South and Tiffany Circle	-	2	-	-	-	-	-	2	-	-	4
Searingtown Rd and Tiffany Circle	1	-	-	-	-	-	-	-	-	-	1
Searingtown Rd between Tiffany Circle and LIE North Service Rd	-	4	-	-	-	1	-	-	-	1	6
LIE North Service Rd and Searingtown Rd	7	10	-	4	2	-	-	2	-	2	27
Searingtown Rd between LIE North Service Rd and LIE South Service Rd	-	-	-	-	-	-	-	1	-	-	1
LIE South Service Rd and Searingtown Rd	-	9	-	2	-	1	-	9	-	2	23
Total	11 *12%*	43 *45%*	2 *2%*	7 *7%*	2 *2%*	5 *5%*	0 *0%*	16 *17%*	0 *0%*	10 *10%*	96 *100%*

Note: * denotes fatal accident

A review of **Table 3-8** indicates that a majority of the reported or known accidents involved rear-end collisions at 45%, followed by overtaking accidents at 17%.

EXISTING CONDITION ANALYSIS

The peak hour traffic volumes depicted in **Figures 3, 4** and **5** of the TIS provided in **Appendix H** were used to determine the existing capacity and LOS of the study intersections. **Table 3-9** provided below, contains the LOS summary for the Existing Condition calculated through the Synchro software described in the TIS. The detailed analysis worksheets are available for review in Appendix E of the TIS which is provided in **Appendix H** of this DEIS.

TABLE 3-9
EXISTING CONDITION LOS SUMMARY

			AM Peak Hour		PM Peak Hour		Saturday Midday Peak Hour	
Intersection	**Approach**	**Movement**	**LOS**	**Delay (sec.)**	**LOS**	**Delay (sec.)**	**LOS**	**Delay (sec.)**
Searingtown Road at LIE South Service Road	EB	L	C	34.0	C	33.1	D	35.4
		LTR	C	24.6	F	105.4	C	27.2
	SB	L	E	76.6	F	177.6	E	74.8
		T	A	3.8	B	13.2	A	4.8
	NB	T	C	28.1	D	35.0	C	27.3
		R	A	5.6	B	16.1	A	8.4
	Overall		D	37.3	F	88.8	D	36.7
Searingtown Road at LIE South Service Road	WB	LTR	F	87.5	D	39.3	C	24.5
		R	C	20.5	C	25.8	C	23.2
	NB	L	F	82.2	E	56.8	D	44.9
		T	B	16.1	C	20.1	B	16.2
	SB	T	C	24.1	C	25.0	C	20.8
		R	D	54.2	E	73.0	B	14.6
	Overall		D	53.9	D	36.6	C	20.6
Searingtown Road at Estates Terrace South/ Christopher Morley County Park	EB	LT	B	19.3	C	21.9	C	20.3
		R	A	0.4	A	0.3	A	0.5
	WB	L	B	19.2	C	22.7	C	21.1
		LT	B	19.1	C	22.7	C	21.1
		R	A	0.0	A	3.0	A	1.8
	NB	L	A	2.9	A	3.4	A	3.6
		TR	A	6.1	A	8.6	A	9.8
	SB	L	A	2.8	A	3.3	A	3.5
		TR	A	6.9	B	13.1	A	8.9
	Overall		A	6.6	B	11.3	A	9.4
Searingtown Road at Estates Terrace North/ Dianas Trail	EB	LT	C	34.4	C	35.0	C	33.5
		R	A	6.1	A	8.9	A	6.6
	WB	LTR	C	28.9	C	31.4	C	25.5
	NB	L	A	3.7	A	6.4	A	3.4
		TR	A	3.6	A	3.1	A	3.6
	SB	L	A	3.0	A	3.0	A	3.0
		TR	A	3.7	A	5.4	A	3.7
	Overall		A	4.4	A	5.1	A	4.2

Notes: LOS = Level of Service, V/C = Volume/Capacity Ratio, Delay = seconds/vehicle

Searingtown Road and LIE South Service Road

The signalized intersection of Searingtown Road and LIE South Service Road from an overall perspective operates at LOS D, F and D during the AM, PM and Saturday peak periods, respectively.

Searingtown Road and LIE North Service Road
The signalized intersection of Searingtown Road and LIE North Service Road from an overall perspective operates at LOS D, D and C during the AM, PM and Saturday peak periods, respectively.

Searingtown Road and Estates Terrace South/Christopher Morley County Park
The signalized intersection of Searingtown Road and Estates Terrace South/Christopher Morley County Park from an overall perspective operates at LOS A during the AM and Saturday peak periods and at LOS B during the PM peak period.

Searingtown Road and Estates Terrace North/Dianas Trail
The signalized intersection of Searingtown Road and Estates Terrace North/Dianas Trail from an overall perspective operates at LOS A during the AM, PM and Saturday peak periods.

3.4.2 Anticipated Impacts

Traffic
Site Access

As depicted on the site plan, access to the site will be provided via one unsignalized full movement driveway on Searingtown Road.

Trip Generation

In order to identify the impacts the proposed residential development will have on the adjacent street system, it is necessary to estimate the magnitude of traffic volume generated during the peak hours and to estimate the directional distribution of the site traffic when entering and exiting the subject property. The trip generation estimates for the proposed residential development were prepared utilizing data found under Land Use Code 210-Single Family Detached Housing within the Institute of Transportation Engineers' publication, *Trip Generation, Eighth Edition*. This publication sets forth trip generation data obtained by traffic counts conducted at sites throughout the country. The following Table summarizes the trip generation estimates for the proposed residential development. Appendix C of the TIS provided in **Appendix E** of this DEIS contains the trip generation worksheets.

TABLE 3-10
TRIP GENERATION
Proposed Project

Time Period	Distribution	Single Family Homes 47 Units
Weekday AM Peak Hour	Enter	9
	Exit	26
	Total	**35**
Weekday PM Peak Hour	Enter	**30**
	Exit	**17**
	Total	**47**
Saturday Midday Peak Hour	Enter	24
	Exit	20
	Total	**44**

Source: Trip Generation, 8th Edition, published by ITE

As can be seen from **Table 3-10** above, the proposed residential development is projected to generate 35 trips (9 entering and 26 exiting) during the weekday AM peak hour, 47 trips (30 entering and 17 exiting) during the weekday PM peak hour and 44 trips (24 entering and 20 exiting) during the Saturday midday peak hour.

TRAFFIC IMPACT ANALYSIS

The intersection capacity and level-of-service (LOS) analyses were based on the procedures and guidelines presented in the *Highway Capacity Manual (2010)*, published by the *Transportation Research Board*. The Synchro Version 8 software was used to analyze the study intersections and provide a LOS measurement of the intersection operations. The six classes of LOS, ranging from LOS A (excellent) to F (worst), are defined in Appendix E of the TIS provided in **Appendix H** of this DEIS.

Tables 3-11 through **3-16** illustrate the LOS summaries for the study intersections.

TABLE 3-11

LEVEL OF SERVICE SUMMARY (UNSIGNALIZED) – AM PEAK

Unsignalized Intersections	Approach/ Movement	Build	
		LOS	Delay
Searingtown Road and Site Access	EB-L	D	28.9
	EB-R	B	11.5
	NB-L	B	12.2

TABLE 3-12
LOS SUMMARY – AM PEAK

			No Build		Build	
Intersection	**Approach**	**Movement**	**LOS**	**Delay (sec.)**	**LOS**	**Delay (sec.)**
Searingtown Road at LIE South Service Road	EB	L	C	34.2	C	34.3
		LTR	C	24.6	C	24.6
	SB	L	F	82.8	F	88.0
		T	A	3.8	A	3.9
	NB	T	C	28.7	C	28.9
		R	A	5.6	A	5.7
	Overall		D	39.5	D	41.2
Searingtown Road at LIE North Service Road	WB	LTR	F	86.9	F	86.9
		R	C	22.7	C	23.4
	NB	L	F	85.6	F	85.3
		T	B	16.5	B	16.6
	SB	T	C	24.2	C	24.4
		R	E	59.0	E	62.9
	Overall		D	54.8	E	55.3
Searingtown Road at Estates Terrace South/ Christopher Morley County Park	EB	LT	B	19.3	B	19.3
		R	A	0.5	A	0.5
	WB	L	B	19.1	B	19.1
		LT	B	19.1	B	19.1
		R	A	0.2	A	0.2
	NB	L	A	2.9	A	2.9
		TR	A	6.4	A	6.4
	SB	L	A	2.8	A	2.8
		TR	A	7.1	A	7.3
	Overall		A	6.8	A	6.9
Searingtown Road at Estates Terrace North/ Dianas Trail	EB	LT	C	34.4	C	34.4
		R	A	6.4	A	6.4
	WB	LTR	C	28.7	C	28.7
	NB	L	A	4.0	A	4.0
		TR	A	3.7	A	3.8
	SB	L	A	3.0	A	3.0
		TR	A	3.9	A	3.9
	Overall		A	4.5	A	4.5

Notes: LOS = Level of Service, V/C = Volume/Capacity Ratio, Delay = seconds/vehicle

TABLE 3-13
LOS SUMMARY – PM PEAK

			No Build		Build	
Intersection	**Approach**	**Movement**	**LOS**	**Delay (sec.)**	**LOS**	**Delay (sec.)**
Searingtown Road at LIE South Service Road	EB	L	C	34.1	D	35.3
		LTR	F	115.3	F	115.6
	SB	L	F	189.9	F	192.5
		T	B	12.9	B	13.1
	NB	T	D	35.2	D	35.4
		R	B	16.5	B	16.5
	Overall		F	95.7	F	96.2
Searingtown Road at LIE North Service Road	WB	LTR	D	42.9	D	43.8
		R	C	27.5	C	28.5
	NB	L	E	57.6	E	57.2
		T	C	20.8	C	21.6
	SB	T	C	28.1	C	28.4
		R	F	104.0	F	108.0
	Overall		D	43.6	D	44.8
Searingtown Road at Estates Terrace South/ Christopher Morley County Park	EB	LT	C	22.0	C	22.0
		R	A	0.4	A	0.4
	WB	L	C	23.3	C	23.3
		LT	C	23.3	C	23.3
		R	A	3.1	A	3.1
	NB	L	A	3.5	A	3.5
		TR	B	10.1	B	10.3
	SB	L	A	3.6	A	3.6
		TR	B	17.8	B	18.1
	Overall		B	14.6	B	14.8
Searingtown Road at Estates Terrace North/ Dianas Trail	EB	LT	C	34.8	C	34.8
		R	A	9.2	A	9.2
	WB	LTR	C	30.5	C	30.5
	NB	L	A	7.3	A	7.4
		TR	A	3.2	A	3.2
	SB	L	A	3.1	A	3.1
		TR	A	5.6	A	5.7
	Overall		A	5.4	A	5.4

Notes: LOS = Level of Service, V/C = Volume/Capacity Ratio, Delay = seconds/vehicle

TABLE 3-14
LEVEL OF SERVICE SUMMARY (UNSIGNALIZED) – PM PEAK

Unsignalized Intersections	Approach/ Movement.	Build	
		LOS	Delay
Searingtown Road and Site Access	EB-L	D	32.0
	EB-R	B	10.6
	NB-L	C	17.9

TABLE 3-15
LOS SUMMARY – SATURDAY PEAK

			No Build		**Build**	
Intersection	**Approach**	**Movement**	**LOS**	**Delay (sec.)**	**LOS**	**Delay (sec.)**
Searingtown Road at LIE South Service Road	EB	L	D	36.2	D	36.7
		LTR	C	27.4	C	27.5
	SB	L	E	79.8	F	81.9
		T	A	4.9	A	4.9
	NB	T	C	27.5	C	27.6
		R	A	8.7	A	8.7
	Overall		D	38.2	D	38.9
Searingtown Road at LIE North Service Road	WB	LTR	C	24.9	C	25.0
		R	C	23.5	C	23.5
	NB	L	D	47.0	D	47.2
		T	B	16.5	B	16.9
	SB	T	C	21.1	C	21.3
		R	B	15.6	B	16.0
	Overall		C	21.1	C	21.3
Searingtown Road at Estates Terrace South/ Christopher Morley County Park	EB	LT	C	20.5	C	20.5
		R	A	0.5	A	0.5
	WB	L	C	21.1	C	21.1
		LT	C	21.1	C	21.1
		R	A	1.8	A	1.8
	NB	L	A	3.6	A	3.6
		TR	B	10.1	B	10.3
	SB	L	A	3.6	A	3.6
		TR	A	9.3	A	9.4
	Overall		A	9.7	A	9.9
Searingtown Road at Estates Terrace North/ Dianas Trail	EB	LT	C	33.6	C	33.6
		R	A	7.1	A	7.1
	WB	LTR	C	26.0	C	26.0
	NB	L	A	3.5	A	3.5
		TR	A	3.7	A	3.7

			No Build		Build	
Intersection	**Approach**	**Movement**	**LOS**	**Delay (sec.)**	**LOS**	**Delay (sec.)**
	SB	L	A	3.2	A	3.2
		TR	A	3.8	A	3.8
	Overall		A	4.3	A	4.3

Notes: LOS = Level of Service, V/C = Volume/Capacity Ratio, Delay = seconds/vehicle

TABLE 3-16
LEVEL OF SERVICE SUMMARY (UNSIGNALIZED) – SATURDAY PEAK

Unsignalized Intersections	Approach/ Movement	Build	
		LOS	Delay
Searingtown Road and Site Access	EB-L	D	28.2
	EB-R	B	11.4
	NB-L	B	12.9

Searingtown Road and LIE South Service Road
In the No Build Condition, the signalized intersection of Searingtown Road and LIE South Service Road is projected to operate at LOS D during the AM peak period, LOS F during the PM peak period and LOS D during the Saturday midday peak period. With the construction of the proposed project, the intersection will continue to operate at No Build conditions during the analyzed peak periods with minimal increase in delay. Although this intersection operates at LOS F during the PM peak period, it can be seen that the overall delay is only projected to increase by 0.5 seconds. During the PM peak period the eastbound left-turn movement experiences a change in LOS, from C to D. However, the increase in delay is minimal at only 1.2 seconds. During the Saturday peak period the southbound left-turn movement experiences a change in LOS from E to F. However the increase in delay is minimal at only 2.1 seconds. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Searingtown Road and LIE North Service Road
In the No Build Condition, the signalized intersection of Searingtown Road and LIE North Service Road is projected to operate at LOS D during the AM and PM peak periods and at LOS C during the Saturday midday peak period. With the construction of the proposed project, the intersection will continue to operate at No Build conditions during the PM and Saturday peak periods with minimal increase in delay. During the AM peak period the overall LOS of the intersection changes from D to E. However, the increase in delay is minimal at only 0.5 seconds. There is no change in LOS to individual movements. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Searingtown Road and Estates Terrace South/Christopher Morley County Park
In the No Build Condition, the signalized intersection of Searingtown Road and Estates Terrace North/Christopher Morley County Park is projected to operate at LOS A during the AM and Saturday peak periods and at LOS B during the PM peak period. With the construction of the proposed project, the intersection will continue to operate at No Build conditions during the analyzed peak

periods with minimal increase in delay. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Searingtown Road and Estates Terrace North/Dianas Trail
In the No Build Condition, the signalized intersection of Searingtown Road and Estates Terrace North/Dianas Trail is projected to operate at LOS A during the AM, PM and Saturday midday peak periods. With the construction of the proposed project, the intersection will continue to operate at No Build conditions during the analyzed peak periods with minimal increase in delay. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Searingtown Road and Site Access
During the Build Condition, the eastbound left-turn movement is projected to operate at LOS D during the AM, PM and Saturday midday peak periods. The eastbound right-turn movement is projected to operate at LOS B during the AM, PM and Saturday midday peak periods. The northbound left-turn movement is projected to operate at LOS B during the AM and Saturday midday peak periods and at LOS C during the PM peak period.

The TIS concludes:

Based on the results of the TIS as detailed in the body of this report, it is the professional opinion of Nelson & Pope that, constructing the proposed residential development will not result in significant traffic impacts in the study area.

3.4.3 Proposed Mitigation

No mitigation is recommended.

3.5 Cultural Resources

3.5.1 Existing Conditions

A review of New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) file data indicate that the subject site and adjacent properties do not contain any historic landmarks or other cultural resources that are listed on the State or Federal Registers of Historic Places and are not located within an area known to be archaeologically sensitivity. **Figure 3-3** depicts the locations of State and Federal Register of Historic Places and archaeologically sensitive areas in the general vicinity. The subject property is also not located within any locally designated historic districts and neither the site nor its past and currently remaining structures have been found by the Village to have any local historical significance.

3.5.2 Anticipated Impacts

Impacts to cultural resources are not anticipated due to the absence of significant historic or archeological resources in the area as determined through a NYS OPRHP records review by NP&V, including the cultural resources/archeology map for this DEIS (**Figure 3-3**). As no impacts to cultural resources are anticipated, no further investigation is necessary.

3.5.3 Proposed Mitigation

- Since impacts to cultural resources are not anticipated due to the absence of such resources on or adjacent to the site, no mitigation measures are proposed.

SECTION 4.0

ADDITIONAL TOPICS OF ASSESSMENT

4.0 MISCELLANEOUS

4.1 Cumulative Impacts

This section considers potential impacts of the Proposed Project in conjunction with other nearby actions. It identifies potential synergistic effects that may, when combined with the impacts of the Proposed Project, result in one or more significant cumulative environmental impacts. At the time this DEIS was being prepared, there were no other nearby pending or recently approved development projects or other major actions taking place in the area that might significantly impact the environment or place inordinate strain on community services and infrastructure.

Traffic

The TIS (**Appendix H**) indicates that there were no projects that were planned or under construction in the area at the time the TIS was being prepared. Nevertheless, the TIS included a 0.5% annual growth factor which was applied to the existing traffic volumes to project volumes for the year 2016. The purpose of this data adjustment was to ensure that the TIS considered the effects of normal background growth and provided a more exact estimate that would account for increases in traffic in the near future. Based on the Proposed Project's traffic assessment and the anticipated 0.5% growth over the 2-year 2014-2016 period, it was determined that no significant traffic impact would occur. Moreover, any future nearby projects that may generate significant levels of traffic would be reviewed by the Village and any such project impacts mitigated to the extent necessary. Again, since there is limited vacant land available for development in the area, the only significant future traffic generators near the project site would be from any possible redevelopment or expansion projects which would be controlled by zoning and other development requirements. Since most development in the area consists of residential land uses, redevelopment of these properties to large commercial, industrial, or other high traffic generating land uses is very unlikely.

Natural Resources

Since there are no pending projects or developments currently under construction near the subject property; limited undeveloped land and natural resources in the area; and little opportunity for additional large scale development in the vicinity; significant cumulative impacts to natural resources are not expected. Christopher Morley County Park, located across the street from and to the east of the Proposed Project, currently contains 30 acres of natural open space that is open for the public's enjoyment and provides wildlife habitat within this largely developed community. This open space will be unaffected by the project and helps to ensure that a large block of natural open space is available in the area. Section 2 of this DEIS thoroughly examines the potential for impacts to natural resources from the Proposed Project.

There are no natural surface waters or wetlands in the area. Sanitary sewers are available to greatly reduce pollutant loading to the North Hills SGPA from the proposed project and other existing and future developments in the area. Again, since there is limited residual development potential in the area and no other significant development activities currently proposed or under construction, cumulative impacts to soil and water resources and topography are not expected.

Land Use & Zoning

The area surrounding the subject property between Northern Boulevard (SR 25A), the Long Island Expressway, Shelter Rock Road, and Mineola Avenue is densely developed. There are few if any vacant developable properties in this area (with the exception of the Christopher Morley County Park open space area) and limited new development potential, with the exception of the subject property which is the last large vacant property in the area. Any future development in the area will be guided by the Village Code and will be carefully reviewed by the applicable boards and agencies. Based on this determination, and then fact that there are no pending development projects in the area, significant additional growth is not anticipated in the area and cumulative impacts to land resources are not expected.

Community Services

Since no projects are currently planned or being constructed in the area, significant additional strain on community services is not anticipated. Any background development or redevelopment activities in the area will be required to coordinate with the applicable service providers to ensure that service or capacity is available to serve these projects or the scale or design of projects are suitably modified to allow service delivery. The Applicant has reached out to community service providers, and to date has determined that water, sewer, and electrical utilities are available and have the capacity to serve the project. The Applicant has reached out to the remaining community services and essential utilities to request their input, but have not received their responses to date. As with the subject project, it is expected that other development activities will be assessed the necessary fees and/or taxes to support, reimburse, and offset community services and any potential impacts.

4.2 Adverse Impacts That Cannot Be Avoided

This section addresses the adverse impacts that cannot be avoided from the Proposed Project. The project site has been thoroughly examined and the potential impacts to the existing site and surrounding area from the 46-lot subdivision have been fully evaluated. SEQRA requires that impacts be avoided or mitigated to the maximum extent practicable; however, it is acknowledged that some environmental impacts are unavoidable or cannot be fully addressed. The anticipated impacts of the project have been assessed in previous sections of this document and project mitigations have been provided. The impacts of the Proposed Project have been mitigated to the maximum extent possible, but this section acknowledges those impacts that may still occur:

- Potential short term, temporary fugitive dust and equipment/truck noise during construction of the project.
- Grading, cutting and filling of portions of the site, which will permanently alter the site's natural topography.
- Modifications to natural drainage patterns.
- Increases in the quantity of recharge entering the site as compared to existing site conditions.

- An increase in the concentration of nitrogen in recharge, even though stormwater will be properly handled, retained and recharged on-site and nitrogen concentrations (1.56 mg/l) will remain significantly below the 10 mg/l drinking water threshold standard.
- Loss of natural vegetation including some exploitably vulnerable plant species on-site and potential displacement and/or loss of wildlife.
- An increase in vehicle trips on local roadways.
- Increase in the intensity of the land use on the property.
- Increase in the local population, and increase in enrollment within the MUFSD.
- Increases in demand on public utility services, particularly water supply and wastewater treatment.

4.3 Irreversible and Irretrievable Commitment of Resources

This section is intended to identify those natural and human resources that will be consumed, converted, or made unavailable for future use as a result of this project. The development of the proposed project will result in an irreversible and irretrievable commitment of some resources. The importance of this commitment of resources, however, is not anticipated to be significant, due to the fact that these losses do not involve any resources that are in short supply, semi-precious, precious to the community or region, or are otherwise would be so substantial as to cause a shortage.

It is difficult to quantify the exact commitment of resources; however, if the project is implemented, the following losses of irreversible and irretrievable resources are expected:

- Material used for construction on the site, including but not limited to wood, asphalt, concrete, fiberglass, steel, aluminum, etc.
- Energy and resources used in the construction, habitation, and maintenance of this project, including fossil fuels, electricity and water.
- Commitment of natural resources including the removal of trees and disruption of natural habitats.
- Commitment of land to a permanent land use and resultant increases in demand on utilities and community service providers.
- Groundwater that is used for domestic purposes and withdrawn locally and discharge at a treatment facility at a different location.

4.4 Growth-Inducing Aspects

Growth-inducing impacts are impacts that would promote further development, population growth, or business growth in an area as a result of a specific project or combination of projects. These effects can be categorized as “direct” or “indirect” with direct effects being those aspects of a project that spur growth in and of themselves and which may result from:

- A significant influx of new residents/consumers into an area (for a residential project),
- Creation/revitalization of a major retail center or other type of employment center (for a commercial or industrial project) in an area where such development is not present, or
- Development of a significant facility of a type not previously represented in the area.

Indirect effects are those aspects of a project, which enable growth on other sites or increase the potential for other development in an area. Indirect effects may include:

- Installation of new or expanded infrastructure improvements,
- Increased sales receipts from material suppliers to the project, or
- Increased number of businesses attracted to the area because of the increased number of potential customers.

Examples of infrastructure improvements include: extension of public sewer lines, construction of a sewage treatment plant with significant excess capacity, extension of public water distribution lines or installation of new well fields so that water consumption caps are raised, or extension of public transit services to an area previously unserved that enhances access and opportunities for relocation or visitation to an area.

The following is a summary of possible direct and indirect growth inducing impacts.

- The proposed subdivision is designed in conformance with Village zoning requirements and the yield of the property. The density of the development also falls within the low end of the density spectrum recommended by the Nassau County Comprehensive Plan. Since the proposed project complies with the density requirements and recommendations of the comprehensive plans of the Village and County, the density falls within a range that has been deemed appropriate for the area. The proposed development will provide homes for an estimated 195 persons but is not expected to invoke additional growth, particularly since it is the last large tract of vacant land in the immediate area.
- Connection to the public water supply system is proposed for this project. The MLWD has indicated that the district is in compliance with the NYSDEC pumpage cap and that water is available for the project subject to the owner signing a developer's agreement to expand the District's infrastructure as required to provide the requested water service. New water mains will have to be installed on-site and new or enhanced pumping systems may be required (**Appendix A**). The project will provide annual tax revenues of approximately $36,250 per year to the MLWD which is $29,858 more than it currently receives from the property. Individual homeowners will be assessed fees based on their consumption practices. Extension of water main son to the site will not spur growth or increase density on adjacent properties as they are already developed and are connected to the public water supply.

- Sewer mains will be extended on to the site. The existing sewer system and treatment facility have the capacity to serve the project (**Appendix A**). Fees will be paid as required and a total of $86,129 in annual tax revenues is expected from the project which is projected to be $70,942 greater than the current tax revenues from the property. Extension of sewers on to the site will not attract additional development or density in the area as adjacent properties are already developed and are already served by this system.
- The proposed project will provide housing for a total estimated 195 persons and 60 school age children who would be expected to be educated in local public schools. The project will pay an estimated $1.89 million in annual taxes to the district to help offset this growth. The addition of additional students to the public school system is not anticipated to spur growth in the area.
- The additional residents will increase demand for products and services in the area, however, with limited growth potential in the area, the projected growth in population will likely provide a benefit to existing local businesses rather than stimulate significant new commercial development or expanded community growth.
- The project will provide tax revenues to various taxing districts to not only offset project impacts but also to help offset future growth in the area.
- Additional vehicle trips will be generated in the area, including temporary construction trips, future homeowners and their visitors, and service, maintenance, and delivery personnel trips. The cumulative effects of traffic were assessed based on a 0.5% background growth factor over a two year period to the year 2016 and no significant impact to transportation systems was identified. No additional traffic lanes or widening of public ROWs are necessary to address potential impacts and the project does not involve the construction of new roads that would connect undeveloped, landlocked or otherwise inaccessible land. Proposed streets will be on-site and for the benefit of the 46-lot private community, only.

4.5 Effects on the Use and Conservation of Energy Resources

An increase in the consumption of energy resources accompanies all land development and building construction activities. While the subject property was previously developed with a large (87-room), early 1920s building that was not energy efficient, the energy requirements of constructing and then heating and powering 46 large single-family homes would be expected to be more significant. The 46 homes, however, will be constructed in accordance with modern building codes and will rely on energy efficient systems and designs. Energy-efficient building materials (e.g., insulations, windows, weather stripping, door seals, etc.) and mechanical systems (e.g., air conditioners, heating and HVAC systems, water heaters, heat pumps, etc.) are anticipated. These materials and systems would help in minimizing the amount of energy resources required. Incorporation of such energy-conserving systems is not only inherent in existing building codes, but is a sensible practice for owners of large homes, particularly in light of increasing costs of energy resources. It is expected that existing public utilities at the site will be more than adequate to meet the expected demand. The Applicant has been diligent in

reaching out to essential service providers to request service availability, capacity and input as documented in **Appendix A** and other sections of this DEIS.

There will be an increase in energy use (particularly fossil fuels and electricity) during the construction phase of the proposed project. These impacts will be temporary, and while construction involves the use of nonrenewable energy resources, a major trade off is the number of quality jobs that will be created or sustained by this construction.

In addition, the 46 homes and clubhouse, once constructed, will utilize natural gas and electricity for their energy and heating needs. These long-term energy demands are expected to remain stable or decline overtime as a result of energy-conserving measures and innovative technologies. Sustainable strategies will be incorporated into the home designs to provide both efficiency and energy savings. The Manhasset Crest Design Guidelines (**Appendix B-1**) include sustainability requirements which will provide for energy efficiency and water use savings. These include compliance with the following:

- All homes will achieve WaterSense label (an U.S. Environmental Protection Agency, "EPA" Partnership Program[1]), which are designed to reduce residential water use indoors and out by approximately 20 percent, allowing homeowners to use less water and energy. Design considerations include demand-controlled recirculating hot water systems and WaterSense labeled fixtures for kitchens and bathrooms.
- All homes will meet Energy Star homes design standards, which provide energy efficiency savings of up to 30%, including excellent air sealing, appropriately-sized mechanical equipment, and proper ventilation in bathrooms and kitchens.
- All homes will meet EPA Indoor airPLUS labeling in conjunction with the Energy Star label. This label requires installation of features that do not introduce pollutants to the air in and around the home during construction and occupancy

In summary, it is not anticipated that the project will result in any unusual or significant adverse impacts on the use and conservation of energy resources given current construction standards and practices.

[1] http://www3.epa.gov/watersense/

SECTION 5.0

ALTERNATIVES

5.0 ALTERNATIVES

SEQRA requires every Draft EIS to contain an evaluation of reasonable project alternatives. This phase of environmental review provides the context and framework for identifying, describing, comparing and contrasting feasible project alternatives that may be consistent with the project sponsor's objectives and capabilities. Alternatives investigations are an integral part of the land use planning and impact identification and mitigation process as they provide for a broader understanding and the bases for 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 and methodologies employed, timeframes, phasing, or other viable plan modifications.

SEQRA also requires a comparative assessment of what it refers to as the "No Action Alternative." The No Action alternative serves as the basis for identifying, characterizing and evaluating anticipated site changes and the possible impacts and benefits that are likely to result in the reasonably foreseeable future in the absence of any new land use(s), site disturbances, and construction activities. The discussions and analyses of project alternatives are 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.

The alternatives considered for the subject project are as follows:

Alternative 1: ("No Action Alternative")

Alternative 1 is the "No Action Alternative" which is required by SEQRA and is intended to identify the conditions that currently exist on-site and that may be expected in the future if the project site and current use(s) remain unaltered and unchanged. The No Action Alternative allows for an assessment of anticipated future impacts and benefits under current design conditions and provides a foundation for comparing and contrasting the proposed project with *status quo* conditions.

Since the 20,194 SF three-story 87-room St. Ignatius Jesuit Retreat Center land use has been abandoned and its principle structure removed from the site, this No Action Alternative assumes that the only remaining structures on the property remain. These include: the small single-story masonry building on the north side of the property, the dilapidated garage/shed on the east side of the property, and the existing parking lots, driveway, maze, reflecting pool, and other minor accessory structures and features. The No Action Alternative also assumes that there will be no subdivision of the property, no new homes or streets to be constructed, no further clearing or site disturbance, and no new drainage structures, site infrastructure, or utility extensions on the 30.43-acre property,

Alternative 2: ("46-Lot Yield Map Alternative")
This project alternative assumes that the 30.43-acre property is divided into forty-six (46) fully conforming single-family residential lots as depicted on the **Yield Map** provided in the **Attachment 2** at the end of this document. Under this scenario, no variances or

waivers would be requested, with the exception of a waiver for the access roadway slope and potentially relief for placement of a gatehouse within the 150 foot setback from Searingtown Road. The main access and emergency access would be in a similar location as the same locations as the Proposed Project. The 3,000 SF GFA clubhouse would not be provided. A full 50 foot right of way would be provided in accordance with Village requirements. A similar level of site disturbance would be expected and the anticipated demand for community services would be roughly proportional since the property yield and the sizes of the homes would be similar, however the net lot sizes are reduced due to the additional road right of way. The actual potential impacts, and therefore, the impact avoidance and mitigation techniques to address potential environmental impacts would also be quite similar to those planned for the Proposed Project.

The primary differences between the 46-Lot Yield Map Alternative and the Proposed 46-Lot Subdivision are as follows:

- The Yield Map Alternative results in less variety of lot sizes, as the majority of the lots are 20,000 SF. The lots fronting Searingtown Road are slightly oversized due to the 150 foot setback requirement.
- A change in the subdivision street pattern would occur, two small cul-de-sacs and an additional loop road would be provided for the Yield Map Alternative, and the street rights-of-way would be 50 feet wide rather than 30 feet wide as proposed. Actual pavement width would, however, be the same. The additional street network would result in an increase of impervious surfaces and therefore additional stormwater containment.
- Maintaining an entrance roadway grade of eight percent or less requires significant cut of on-site soils to lower the topography across the property to maintain level roadways and access to the lots. This alternative therefore assumes a more mass grading concept, where the overall property is brought to a more leveled grade through removal of on-site soils and use of retaining walls.
- The front yard setbacks of the lots in the 46-Lot Yield Map Alternative would be a minimum of 50 feet in depth rather than a minimum of 45 feet/average that is no less than 50 feet/and maximum that is no more than 20 feet greater than the minimum front yard setback, as permitted by Code.
- Unlike the Proposed Project, the 46-Lot Yield Map Alternative would not include a clubhouse or community amenities.
- As with the Proposed Project, a variance for relief from the 150-foot setback requirement between the gatehouse and Searingtown Road may be required if a gatehouse is proposed under this scenario.
- The existing stormwater recharge basin at the northeast end of the property would be retained and the same new recharge basin shown on the Applicant's preferred plan would be provided. A significant area of closely spaced leaching pools would be required on the south side of the entrance roadway.

5.1 Alternative 1: No Action

Table 5-1 is a matrix containing quantitative projections of key project impact indicators. The resulting data characterize anticipated land use conditions and enable comparisons of the two project alternatives described above, relative to the Applicant's Proposed Project.

For the purposes of evaluation and comparison, Alternative 1 assumes that the subject property is to remain vacant and unused. No further demolition, construction or physical alterations to the site would occur. Site access would continue to be from the property's current access point off of Searingtown Road and there would be no emergency access/egress. The existing accessory structures would remain on the site as their removal would not be economically practical in light of the elimination of all viable economic uses of the property. Stormwater runoff from the remaining parking lots and the access driveway would be through the existing on-site leaching pools installed in the parking lots and at the entrance to the site. The site grounds would continue as mostly lawn that would eventually become overgrown, likely with a mix of native and invasive species, and the existing woodlands. There would be no fertilization or irrigation and no domestic water use. The total site recharge would remain at an estimated 20.03 MGY and nitrogen loading would be approximately 0.1 mg/l. No school age children would live on-site and no new school enrollment would occur. No solid waste would be generated. No vehicle trips would be generated and there would be no further demand on public services or utilities. The project would also result in the loss of tax ratable development; construction job opportunities; fiscal, economic and housing benefits; and the quality maintenance and upkeep that comes with residential ownership.

Alternative 1 (the "No Action Alternative") is not in keeping with the goals of the project sponsor and is neither practical nor viable. In consideration of the above, it may be concluded that it 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 is no use or economic return on the land. Since this prime real estate is currently underdeveloped (i.e., essentially vacant), it is anticipated that continued pressure for future subdivision of the land would continue, regardless of its ownership, until such time as it was developed as it had been envisioned by the Village upon its designation as an R-3 property pursuant to the Village's Official Zoning Map.

Table 5-1 provides a comparison of the No Action Alternative (Alternative 1) with the Proposed Project and identifies the potential impacts of this alternative. The Table also provides data for the assessment of Alternative 2, which is discussed in detail following this section.

TABLE 5-1
COMPARISON OF PROPOSED PROJECT AND ALTERNATIVES

Parameter	Proposed Project	Alternative 1 (No Action)	Alternative 2 (46-Lot Yield Map)
Proposed and Existing Development	---	---	---
Property Yield	46 conforming single-family residential lots at an average size of ±0.5 of an acre	One 30.43-acre lot, remaining vacant	46 conforming single-family residential lots at an average size of ±0.5 of an acre, 50-foot right of way
Zoning and Land Use	---	---	---
Property Compliance/ Consistency with Zoning	• PB waivers for road ROW width from 50′ to 30′ and roadway width from 34’ to 30’; • Maximum slope of street from 8% to 9% in a minimal area along entrance road • Average front yard setback as permitted by code; • ZBA variances for setback between Searingtown Road & gatehouse from 150′ to 92′ and 48’ to clubhouse parking. Retaining walls within 150’ setback. • Clubhouse setback from internal roadway from 50’ to 27’	• Compliant, but inconsistent with permissible development as-of-right	• ZBA variance for setback between Searingtown Road & gatehouse (should one be proposed) and retaining walls within 150’ setback
Population:	---	---	---
Total Residents [(1)]	195	0	195
School-Age Children:	---	---	---
School-Age Children [(2)]	60	0	60
Site Coverages (acres)**:**	---	---	---
Buildings and Paved Areas (acres)[(3)]	9.33	2.16	9.46
Recharge Basin (acres)	0.76	0.48	0.96
Lawn/Landscaped (acres)	18.90	10.62	18.65
Natural Area (acres)	1.44	16.71	1.36
Nonvegetated (bare earth/fill) (acres)	0	0.46	0
Total	30.43	30.43	30.43
Water Resources:		---	---
Sanitary Wastewater (gpd)	14,700[(4)]	0	13,800[(5)]
Total Water Use (Potable	44,225	0	42,935

Parameter	Proposed Project	Alternative 1 (No Action)	Alternative 2 (46-Lot Yield Map)
+ Landscape Irrigation) (gpd) (6)			
Recharge Volume (MGY) (7)	22.95	16.55	22.95
Nitrogen Concentration (mg/l) (8)	1.56	0.01	1.54
Soils:	---	---	---
Soil Export (CY)	±85,000	0	±151,500
Solid Waste Generation:	---	---	---
Solid Waste (lbs/day) (9)	±858	0	±858

(1) Based on 4.23 persons per 5-bedroom single-family detached residence valued at greater than $748,500 in the State of New York (Burchell *et al*, 2006).
(2) Based on total of 1.47 school aged children per 5-bedroom single-family detached residence valued at greater than $748,500 (Rutgers University, 2006) and a public school enrollment within the District of 88%.
(3) Includes buildings, roads, driveways, the emergency access, and possible future impervious accessory structures. Based on proposed road surface area, including the emergency access, plus the sum of 3,000 SF + 15 percent of each lot within required setbacks.
(4) Based on NCHD sewage design flow requirements for single family homes = 300 gpd per home, 0.3 gpd/sf of clubhouse space for a 3,000 SF GFA building (900 gpd).
(5) Based on NCHD sewage design flow requirements for single family homes = 300 gpd per home, no clubhouse.
(6) Assumes all landscaped areas are irrigated @ 16.0 inches/year & fertilized @ 2.3 lbs/1,000 SF plus projected domestic use.
(7) Based on SONIR model estimate provided in **Appendices E-2, E-3** and **E-4**.
(8) Based on SONIR model estimate provided in **Appendices E-2, E-3** and **E-4**. Assumes landscaped areas are fertilized at 2.3 lbs/1,000 SF/year of nitrogen.
(9) Assuming 4.4 lbs/day/capita (USEPA, MSW, 2011 http://www.epa.gov/epawaste/nonhaz/municipal/index.htm)

5.1.1 Summary

Based on the information provided in **Table 5-1**, the impacts and benefits of the No Action Alternative are as follows:

- Total residential occupation of site of 0 persons;
- Total of 0 school age children attending public schools;
- Total of 0 gpd of wastewater generated on-site;
- Total of 0 gpd water consumed for domestic and irrigation purposes;
- Total site recharge of ±16.55 MGY;
- Total nitrogen concentration in recharge of ±0.01 mg/l;
- Total solid waste generation of 0 lbs/day;
- The site would generate $333,508 tax revenue to support the school district without demand for services and $532,721 in total tax revenues to all districts;
- This alternative would not meet the Village's long-range planning and zoning goals for establishing R-3 land uses on the property;
- Project does not meet project sponsor's objectives and is not viable or practical.

A comparison of the No Action Alternative with the Applicant's Proposed Project and consideration of the associated impact avoidance and mitigation strategies proposed suggests that the No Action Alternative would have very limited impact on the environment and less impact

than the Proposed Project. This alternative would involve no further clearing, site disturbance, or increases in traffic and would not place any additional strain on public services or utilities.

The No Action Alternative would also result in the loss of tax ratable development; construction job opportunities; fiscal, economic and housing benefits to the community; and the maintenance and upkeep that comes with residential ownership. The No Action Alternative is impractical as it involves leaving this 30.43 acre parcel vacant with no future use and would not provide a reasonable financial return on the Applicant's investment backed interest in the property or meet its goal of providing a high end high quality residential development on this property and in this Village. It is the Applicant's intention to develop the site with as-of-right single-family residential homes in a manner that provides the best use of the land, is environmentally responsible, and meets the land use goals and objectives of the Village.

5.2 Alternative 2: 46-Lot Yield Map Subdivision

This alternative assumes that the 30.43-acre property will be subdivided into 46 single-family residential lots or the same number proposed by the Applicant's preferred plan. Each of the lots would comply with the applicable lot dimensional requirements of the Zoning Code's (Chapter 215) R-3 Residence zoning district and the Village's Site Development Regulations (Chapter 179) (see **Yield Map, Attachment 2** at the end of this document). The majority of the 46 lots would be 20,000 SF in area but lots would range from 20,000 SF (0.46-acre) to 41,726 SF (0.96-acre) with an average lot size of 0.51-acre.

- A change in the subdivision street pattern would occur, two small cul-de-sacs and an additional loop road would be provided for the Yield Map Alternative, and the street rights-of-way would be 50 feet wide rather than 30 feet wide as proposed. Actual pavement width would, however, be the same. The additional street network would result in an increase of impervious surfaces and therefore additional stormwater containment. The area in road right of ways is 4.31 acres under Alternative 2, as compared to 2.82 acres under the Proposed Action and the area in lots is 23.4 acres under Alternative 2 as compared to 25.5 acres under the Proposed Action.
- Maintaining an entrance roadway grade of eight percent or less requires significant cut of on-site soils to lower the topography across the property to maintain level roadways and provide access to the lots. This alternative therefore assumes a more mass grading concept, where the overall property is brought to the necessary grade through removal of on-site soils and use of retaining walls. This would not allow for retention of existing trees within the individual lots due to the required changes in grade. Therefore, only perimeter vegetation will remain, as opposed to the Proposed Action where individual home design can select existing trees to remain on the individual lots. The estimated net cut volume of soils is 151,500 CY.
- The area in lots under the front yard setbacks of the lots would be a minimum of 50 feet rather than the minimum of 45 feet/with an average that is no less than 50 feet of front yard setback provided under the Proposed Action. Due to this difference in minimum yard setback, the building envelopes for several of the smaller and more constrained lots would be smaller than those permitted by the Proposed Action.

- Under Alternative 2, the street rights-of-way would be 50 feet wide rather than 30 feet wide. The wider street ROW could provide an opportunity for sidewalks to be constructed. The wider 50-foot ROW would be inconsistent with the ROWs on adjacent private communities' streets to the north, south, and west of the subject property. The increase ROW provides an opportunity to place leaching pools within the ROWs, rather than separate drainage easements; however it also reduces usable rear yard area for each of the lots.
- There would be no clubhouse or recreational amenities to serve this community. The area of open space south of the entrance roadway is used for drainage under Alternative 2.
- The Yield Map would not allow for retention of one of three tree clusters due to the additional ring roadway configuration in the vicinity of Lots 17 and 18.
- The existing stormwater recharge basin at the northeast end of the site would be retained and the same new stormwater recharge basin shown on the Applicant's preferred plan would also be provided. There would be a slightly smaller stormwater recharge/open space area south of the main access but this area would be more densely packed with subsurface drainage structures as opposed to the more evenly distributed drainage provided on Proposed Project plan.

Soils & Topography

Development would occur under the same topographic and soil conditions as the Proposed Project, however Alternative 2 assumes a mass grading approach, where the site would be lowered and leveled to create an appropriate grade for redevelopment of the homes. The grading concept would require a significant retaining wall along the south side of the property, and the southern portion of the property would be filled with cut soils from the higher, northern portion of the property, to create a more uniform grade across the overall property. This "mass grading" concept of site preparation would require approximately forty percent more soil to be exported off the site (an estimated 151,500 CY of net soil export under Alternative 2, as compared to approximately 85,000 CY under the Proposed Action). This would result in a significant increase in the number of truck trips required to export soil off the property during site soil removals (a reduction of approximately 2,217 truck trips for removal of the 66,500 CY of additional soils). Since the Montauk fine sandy loam (MfB) soils are the predominant soil type found on the site and have the same properties, qualities, constraints, and limitations as previously evaluated under the Proposed Project review, large-scale un-mitigatable constraints to development are not anticipated. The same types of erosion, sedimentation, and stormwater control techniques recommended for the Proposed Project would also be planned for the Yield Map Alternative (cut, fill regarding, retention walls, silt fencing, clearing limits, recharge basin, leaching pools, etc.); however the duration of overall site grading operations would be extended under Alternative 2. Like the Proposed Project, the Yield Map Alternative will require the preparation of a SWPPP and the issuance of a SPDES stormwater permit to further address drainage and erosion and sedimentation control.

Water Resources

There are no surface waters or wetlands on or immediately adjacent to the site with the exception of the existing stormwater recharge basin at the northeast end of the site. Potential impacts to surface waters are therefore negligible if not nonexistent.

The total water use for the Yield Map Alternative is estimated to be 42,935 gpd as compared to 44,225 gpd for the Proposed Project. Specifically, the Yield Map Alternative would require slightly less irrigation water than the Proposed Project (29,135 vs. 29,525 gpd) or +880 gpd and would require 900 gpd less in domestic use (13,800 vs. 14,700) due to the elimination of the clubhouse under the Yield Map Alternative design.

Total on-site recharge would remain identical, 22.95 MGY for both the Yield Map Alternative and the Proposed Project (see **Appendix E-4**). Stormwater recharge would be accomplished using leaching pools, roof drains and drywells, and a proposed stormwater recharge basin under both development scenarios; however, the overall distribution and location of stormwater recharge would be different. A SWPPP would be prepared and a SPDES General Permit requested if required for this alternative.

As indicated in **Table 5-1** above, the anticipated nitrogen concentration in site recharge of 1.54 mg/l would be slightly higher than the Applicant's Proposed Project (1.46 mg/l); however, this small difference is considered negligible and no significant impact to ground or surface water resources would be expected under either scenario. The slight increase in nitrogen loading, however, would mean a slightly higher concentration would be delivered to the underlying aquifer which is in a SGPA critical environmental area. Moreover, as with the Applicant's Proposed Project, the Yield Map Alternative would connect to the Nassau County sewerage system, therefore, precluding any on-site wastewater loading from the project into the North Hills SGPA. Like the Proposed Project, the Yield Map Alternative would be in conformance with the specific recommendations of the SGPA Plan for the North Hills SGPA, except that the proposed and alternative uses would be residential, whereas the SGPA plan shows the future use as institutional (See **Section 2.5**).

Ecological Resources

The anticipated level of clearing for the 46-lot Yield Map Alternative would include nearly all of the property, with the exception of the perimeters due to the site grading requirements. The Proposed Project also involves grading throughout the property, though opportunity to retain trees within the individual lots is possible based on individual home designs. In total, Alternative 2 would be expected to have a similar impact on ecological resources including wildlife habitat. **Section 2.6** of this DEIS states that correspondence received from the NYSDEC's Natural Heritage Program on April 22, 2014 (**Appendix F-2**) indicates that the Program has no recent records of rare, threatened or endangered species in the vicinity of the site, but that it was aware of one historical record of a threatened plant (Yellow Giant-hyssop (*Agastache nepetoides*)). NP&V's ecological staff conducted several field assessments of the property including a comprehensive inventory of plant species but did not find it on-site. This ecological investigation of the property also revealed, however, that great laurel, mountain laurel

and flowering dogwood, which are all classified by the state as "exploitably vulnerable," are present on the site but that the exploitably vulnerable designation does not provide any regulatory protection to these species.

Some explotiably vulnerable plants would be lost and existing woodland habitats would be cleared to allow development and grading under both the Proposed Project and Yield Map Alternative. Disturbance would be minimized to the maximum extent practicable, including delineating tree-clearing limits at the site prior to construction in order to avoid inadvertent clearing. Also, no known invasive plant species would be utilized, including those species specifically listed in Nassau County Local Law 22-2009, and some species to be planted as part of site landscaping would be native. Rare animal species were not identified on-site. Common wildlife species, particularly edge species, would be expected to be displaced by the project but some human tolerant birds and mammals would likely remain.

Finally, upon completion the primary differences in clearing and site coverage between the Yield Map Alternative and the Proposed Project would be that the Yield Map Alternative would have 0.08 of an acre less natural vegetation than the Proposed Project and 0.74 of an acre more lawn and landscaping. Additionally, the Yield Map Alternative would not allow for retention of one of three tree clusters due to the additional ring roadway configuration in the vicinity of Lots 17 and 18.

Land Use, Zoning & Land Use Plans

The development of the property with single-family residences under the Yield Map Alternative would be consistent with the use requirements of the R-3 Residence district. The lots would conform to the district's dimensional standards but would also require the relaxation of the requisite 150-foot Searingtown Road setback for a gatehouse (if such structure is proposed). The front yard setbacks of the lots in the 46-Lot Yield Map Alternative would be a minimum of 50 feet rather than a minimum of 45 feet/ average of no less than 50 feet/and maximum of no more than 20 feet greater than the minimum front yard setback. This strict adherence to the front yard setback requirement; however, would slightly restrict the size of building envelopes, and in turn, the level of flexibility needed to properly site and accommodate the large homes proposed.

Community Character

The 46-Lot Yield Map Subdivision would be expected to have the character of a typical high end residential subdivision, similar to those nearby the subject property. The Proposed Action has greater variety of lot size, which will allow for greater diversity of homes sizes and styles, as well as the ability to retain additional trees on the lots based on the specific design preferences of the future owner. The alignment of the main roadway and emergency accesses and proposed perimeter evergreen landscaping would greatly restrict views of the site from adjacent streets and properties. The architecture and landscaping of the site would be of very high quality to match the Applicant's goal of providing high-end luxury homes on attractively landscaped properties. As with the Proposed Project, decorative streetlighting would be installed to enhance the overall appearance of this Alternative subdivision design and the lights would be properly shielded to prevent uplighting and located far enough from adjacent properties as to ensure that light does

not spill on to adjacent private properties. It is noted that the Yield Alternative 2 would require a significant retaining wall along the southern/southeastern property boundary. The retaining walls would be faced with stone pavers rather than simple concrete construction to enhance their appearance. As with the Applicant's preferred design, this alternative would be suitably transitional and harmonious with adjacent land uses and would maintain scenic qualities to the extent possible.

Transportation

Since the number of lots would be the same under the 46-Lot Yield Map Subdivision and the Applicant's Proposed Plan and the number of bedrooms in the homes would be the same, the number of vehicle trips to and from the site during peak traffic periods would be expected to be the same. Also since the main and emergency accesses would be at the same locations, traffic circulation and intersection activity would be the same. Both projects would require the issuance of a waiver from the Planning Board to relax the maximum slope permitted along the proposed streets. The subdivision street pattern and circulation would be slightly different from the proposed design as it would contain two small cul-de-sacs and be configured slightly different.

Community Services

Since both projects are expected to involve the construction of 46 five-bedroom single-family homes. Impacts to community services would generally be the same. The two subdivision designs would be expected to generate the same number of school age children (i.e., approximately 60) that would enroll in local public schools. Both development scenarios would also provide significant property tax revenues for the school district that would exceed the direct costs of educating their residents. Potable water consumption and on-site wastewater generation would also be expected to be the same as would electrical and natural gas consumption. Fire, police and ambulance service demands would also be expected to be the same.

Cultural Resources

Since there are no cultural resources, historic landmarks, or archaeologically sensitive land on or adjacent to the subdivision property, adverse impacts to such resources are not anticipated.

Construction Related Activities

Construction activities would be similar to the Applicant's Proposed Project, with the exception of the initial site grading operations which are anticipated to be more extensive under Alternative 2. As described aove, there is significantly more cut of soils under the Alternative 2 design, therefore the duration of site preparation/initial site grading and number of truck trips are anticipate to be in the range of 40 percent higher under Alternative 2. Demolition and construction activities for the 46-Lot Yield Map Subdivision would result in the generation of temporary noise and dust; however, these activities would only occur Monday through Friday between the hours of 8:00 am and 5:00 pm to conform to Chapter 156, "Noise," of the Village

Code. All demolition and construction personnel and equipment would take access to the site from the existing/proposed entrance and all vehicles would be staged on-site.

5.2.1 Summary

In consideration of the above conditions and project characteristics, it may be concluded that the 46-Lot Yield Map Subdivision would have a similar impact on the environment as the Applicant's Proposed Plan. However the Yield Map Alternative results in less desirable building envelopes/less area in the individual lots, results in additional impervious surfaces by increasing the roadway length, requires a significant increase in export of soils off site and reduced ability to retain individual trees within the lot areas based on individual lot and home design, and does not provide a recreational amenity. Therefore, the Applicant prefers the Proposed Project plan as compared to the Yield Map Alternative 2.

SECTION 6.0

REFERENCES

6.0 REFERENCES

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