DRAFT ENVIRONMENTAL IMPACT STATEMENT

HK Ventures, LLC - Proposed Industrial Park

4285 Middle Country Road

Hamlet of Calverton, Town of Riverhead

Suffolk County, New York

Volume 1 of 3

DEIS and Appendices A - C

Lead Agency

Town of Riverhead
Planning Board
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Riverhead, New York 11901
(631) 727-3200

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Applicant

HK Ventures, LLC.
147 Steamboat Road
Great Neck, NY 11024

May 2021

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Project Location:
30.25-acre parcel
4285 Middle Country Road
Hamlet of Calverton, Town of Riverhead
Suffolk County, New York
SCTM No: 600-116-1-2

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Date of Submission:	May 2021
Date of Acceptance:	June 17, 2021
Date by which comments must be submitted:	A public hearing on the DEIS will be held on August 5, 2021 at 7:00 p.m. in the Town Board Room located at 200 Howell Avenue, Riverhead, NY 11901, at which time verbal and written comments will be accepted. Written comments on the DEIS will continue to be accepted at the offices of the lead agency a minimum of 10 days after the close of the public hearing, or until such later date as may be established by the lead agency.
Availability of Document:	Copies of the DEIS are available for public review at the offices of the lead agency, Office of the Town Clerk, and the Riverhead Public Library. The DEIS is also posted on the Town of Riverhead website at https://www.townofriverheadny.gov.

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EXECUTIVE SUMMARY

This document is a Draft Environmental Impact Statement (DEIS) prepared in accordance with the State Environmental Quality Review Act (SEQRA) and its implementing regulations at 6 NYCRR Part 617 for the action contemplated herein, and is based upon the Final Scope issued by the Town of Riverhead Planning Board (the "Planning Board"), as lead agency, on November 19, 2020. This DEIS evaluates the potential adverse impacts associated with the proposed action, which consists of the development of a vacant parcel of industrially zoned land with a light industrial complex consisting of a total of 412,629± square feet (SF) of floor area to be divided into individual tenant spaces and includes a 1,500 SF cafeteria/commissary for use by the tenants of the complex. The proposed development would be situated on an approximately 30.25 acre-parcel located at 4285 Middle Country Road (also referred to as "NYS Route 25") and zoned Industrial C (Ind C) in the hamlet of Calverton (the "subject property" or "project site"). The subject property is designated Suffolk County Tax Map (SCTM) No. 600-116-1-2.

This DEIS evaluates the following issues, based on the Final Scope issued by the Planning Board:

- Soils and Topography
- Water Resources
- Ecological Resources
- Land Use and Zoning
- Transportation
- Aesthetic Resources
- Historic and Archeological Resources
- Construction-Related Impacts
- Energy Resources

This Executive 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 Executive Summary is not a substitute for the full evaluation of the proposed project performed in Sections 1.0 through 5.0 of this DEIS.

Description of the Proposed Project

Changes from the Initially-Filed Site Plan

Subsequent to the issuance of the Final Scope by the Planning Board, and during preparation of this DEIS, there have been several project and design modifications, including:

1. The Applicant has applied to the Riverhead Industrial Development Agency (IDA) for select tax exemptions, including real property tax, sales tax and mortgage recording tax.

2. The proposed building program has been modified to eliminate the retail component. The initial site plan included an assumed retail space limited to 10 percent for each tenant as well as wholesale business, both of which are no longer part of the proposed action.

3. The proposed action includes the construction of a sewage treatment plant (STP) that would be designed to treat 20,000 gallons per day (gpd) of sanitary waste.

4. The proposed plan has been modified to relocate the proposed recharge basins from the northern portion of the project site (adjacent to Middle Country Road) to a single basin in the southern portion of the project site. During the preparation of this DEIS, the projected cut and fill material required for

the original design would have required a significant volume of fill material to be brought to the project site. Accordingly, the proposed design has been modified such that no fill material would be required.

5. Buildings 4, 6, 7 and 8 have been reduced in size to accommodate the southern recharge basin. The total building area has been reduced by 11,335 SF, thus modifying the total proposed gross floor area from 423,964 SF to 412,629 SF.

Project Design and Layout

The proposed action includes eight industrial-use buildings with an overall gross floor area of 412,629± SF. Phase 1 would include constructing four (4) buildings (226,469± SF of floor area) to be occupied by various tenants and a 1,500± SF cafeteria as an ancillary offering intended to serve employees of the various tenants. Phase 2 would include constructing the remaining four (4) buildings (186,160± SF of floor area). The proposed building sizes would range from approximately 44,100 SF to 56,672 SF. The buildings are proposed as multi-tenant occupancies with user types differing on the east and west sides. The eastern buildings are proposed to be developed with loading docks capable of handling tractor trailers, while the western buildings envision users requiring box trucks.

Access is proposed via one (1) full-movement driveway along Middle Country Road, with signalization of the project site driveway. It is noted that consultations have been undertaken with the New York State Department of Transportation (NYSDOT) regarding the preferred signalization and preliminary acceptance of the proposed plan has been accepted. Accordingly, an application for signalization would be filed during this environmental review process. It is further noted that, if the proposed signal is not accepted, a roadway striping modification to accommodate a two-way left-turn lane on Middle Country Road along the project site frontage would be implemented.

The proposed development includes a total of 326 surface parking stalls to be situated between the two rows of buildings, with landscaped islands incorporated into the proposed design. The proposed development includes loading spaces for both tractor trailers and box trucks to be located along the east and west sides of the property. Specifically, the proposed design includes loading docks sized to accommodate box trucks on the west side of the property for Buildings 1, 3, 5 and 7. The proposed loading docks on the east side of the property would serve Buildings 2, 4, 6 and 8 would be sized for tractor trailers and would each contain retaining walls with fall protection railings. The proposed internal driveways would include wayfinding to guide truck traffic. Two (2) fire lanes with striping and pavement markings would also be provided along the western and eastern portions of the project site adjacent to the proposed side yards landscaped buffers.

Pursuant to the Town of Riverhead Parking Standards (§301 Attachment 1), the proposed development requires 324 parking stalls. The proposed site plan includes 326 total parking spaces, inclusive of 16 ADA accessible parking spaces. Each building would provide two (2) ADA accessible parking spaces in the central drive aisle towards the center of each building. Pursuant to Section 301-232.A of the Town of Riverhead Town Code, a total of 24 loading spaces are required. The proposed site plan includes 101 total loading spaces for the multi-tenant buildings, thus providing sufficient loading spaces for both tractor-trailers and box trucks.

To accommodate pedestrians, a continuous four (4)-foot concrete sidewalk would be situated along the frontage on Middle Country Road and along the east side of the proposed site access driveway. A six (6)-foot wide crosswalk would also be placed in front of the site access along Middle Country Road. Interior to the project site, the proposed design includes sidewalks along the sides of the proposed buildings facing the center drive aisle. Also, bike racks would be installed along the north side of each building within the central drive aisle.

For security purpose, the proposed design includes a six (6)-foot high security gate with a card reader at the project site's entrance and exit lanes. A six (6)-foot high ornamental fence would also be installed from the

security gate to the west and east property lines within the front yard. The proposed ornamental fence would transition into a six (6)-foot high chain-link fence running along the entire extent of the east and west property lines to the south portion of the project site, and along the north side of the recharge basin.

The proposed development also includes landscaping along the frontage and throughout the project site. The planting buffers within the side yards would be between 40 feet and 44 feet. It is noted that the side yard planting buffer east of the access road for STP maintenance vehicles would be 14.2± feet and a 32-foot buffer would be provided near the proposed dumpster locations. The proposed landscaped design includes one, three (3)-foot high berm on the northwest portion of the project site with a 130-foot vegetative buffer and one, three (3)-foot high berm on the northeast portion of the project site with a minimum 70-foot vegetative buffer. The use of generous landscaping and open space buffers is intended to protect the rural appearance and minimize views of the proposed development from Middle Country Road and the EPCAL walking trail to the south of the site. The proposed recharge basin would be bordered by a six (6)-foot high chain link fence with a 12-foot wide access driveway and a minimum 31.9±-foot vegetative buffer would be planted in the rear yard.

The proposed action would remove all woodland and former agricultural land, the area of impervious surfaces would increase to 21.50± acres and the area of lawn and landscaping would increase to 7.79± acres. Pervious pavers have also been incorporated into the design over an area of 0.96± acre.

Drainage, Sanitary Disposal, Water Supply and Utilities

All stormwater generated on-site would be accommodated and recharged via an integrated system of a recharge basin, drywells, catch basins and pervious pavers. The proposed drainage plan has been designed to accommodate a nine-inch storm event which exceeds the 100-year storm event (8.77" rainfall over a 24-hour period) requirement pursuant to the Town of Riverhead and the New York State Stormwater Management Design Manual requirements.

Based on Suffolk County Department of Health Services (SCDHS) design flow factors for General Industrial use (0.04 gpd/SF), the projected sanitary discharge for the overall development (412,629 SF), is 16,506 gpd. As the projected sanitary flow exceeds the maximum permissible flow for individual on-site sanitary systems, the proposed action includes the construction of an STP. To allow for flexibility with future tenants, the proposed STP would be designed to accommodate a flow of 20,000 gpd. The proposed STP would be a modified sub-surface treatment system and has been sited to comply with *Appendix A of the Standards For Approval of Plans and Construction for Sewage Disposal Systems for Other Than Single-Family Residences*.

The proposed development includes an extension of the service area of the Riverhead Water District (RWD) to service the subject property. The total projected potable water usage, based on SCDHS design flow factors, for Phase 1 and Phase 2 is approximately 16,506 gpd. However, the proposed STP would be sized for 20,000 gpd, and thus, total potable water demand for the proposed development is considered to be 20,000 gpd. Irrigation supply is also expected for on-site landscaping with a projected irrigation demand of 1,881± gpd/year based upon a volume of one-half inch of watering per week for the 2± acres of landscaping. During the irrigation period (April to October), the projected irrigation usage would be 3,771 gpd for 26 weeks. It is proposed that all water for domestic use be supplied by the RWD and if required, an irrigation well would be installed to supply irrigation needs on the project site.

As the subject property is currently undeveloped and vacant land, the proposed development would require new connections for natural gas and electrical supply from the utility providers. Consultations have been undertaken with National Grid and PSEG Long Island through written correspondence dated May 20, 2020 (PSEG Long Island correspondence) and February 9, 2021 (National Grid and PSEG Long Island correspondence) from Emtec. Within said correspondence, the projected gas and electrical demands for the proposed action were provided: estimated gas load of 955,000 British thermal units (BTUs) and estimated electricity load of 4,573 kilo-volt-amperes (kVA). National Grid and PSEG Long Island have confirmed adequate

capacity to service the proposed development. It is noted that the proposed development has been designed to accommodate a 3.245 MW rooftop solar array capable of producing 2.4 MW of energy.

Construction Schedule

The proposed development would be constructed in two phases over a total duration of 42± months. Phase 1A is estimated at six (6) months, Phase 1B is estimated at 18 months, and Phase 2 is also estimated at 18 months. The proposed commencement date is December 2021 in order to begin the clearing of vegetation within the permitted window of December 1 to February 28 for protection of the northern long-eared bat. Phase 1A is projected to end on or about May 2022 when Phase 1B would commence. With a projected 18 months for completion of Phase 1B, the entirety of Phase 1 is expected to be completed on or about August 2023. Full occupancy of the first four buildings is projected for 2023. Phase 2 is proposed to commence in January 2024 in order to clear vegetated areas within the aforementioned window, and with a projected 18 months for the entire phase, construction would be completed on or about June 2025. Full occupancy for the Phase 2 buildings is projected in 2025.

Project Purpose, Need and Benefits

It is the objective of the project sponsor to acquire and develop the subject property in accordance with the prevailing zoning (i.e., Ind C) to meet the demand for light industrial space in the Town of Riverhead. The proposed "Calverton Industrial Park" would consist of 75 percent light industrial warehouse use and 25 percent indoor manufacturing use, with an on-site cafeteria/commissary. The proposed development serves to meet the demands for smaller users (i.e., those seeking spaces approximately 5,000 SF-to-50,000 SF in area) with adequate loading space and docks, high ceilings (for warehousing and distribution), and larger drive-in doors.

To evaluate the demand for the proposed project, a Fundamental Market Study (FMS) was prepared by BBG, Inc. The FMS provides a fundamental analysis of the proposed development program at the subject property as well as a comparative analysis of the proposed development program to other similar industrial properties in eastern Suffolk County. As the proposed development falls under the Eastern Suffolk County submarket, the FMS provided an in-depth analysis of this submarket. The FMS noted that, overall, the subject property's location for the proposed development program (i.e., industrial warehouse and distribution) in Riverhead is superior to the other sub quadrants within this submarket (i.e., Westhampton, East Hampton/Montauk and the North Fork). The FMS also evaluated 19 properties in the Eastern Suffolk County submarket that were considered "competitors" to the proposed development and concluded that the proposed development would be ranked the highest out of these 19 other properties as a suitable location for the proposed development program. Overall, based on the FMS, the proposed development serves to meet the unmet demand for industrial warehouse and distribution in eastern Long Island.

Construction of the proposed development is expected to generate 50 to 60 construction jobs per year and upon implementation, the proposed development is projected to generate approximately 459 permanent jobs.

Based on a projected tax rate of 217.156/1000, the redevelopment of the project site is estimated to increase tax generation to approximately $1,130,000 to $1,300,000, with the probable amount of $1,215,000. The proposed project may be eligible for financing through either the Town of Riverhead or Suffolk County IDAs.

Pursuant to the Proposed Land Use Plan included in the Town of Riverhead Comprehensive Plan dated November 2003 (Town Comprehensive Plan), the subject property is located within an area planned for Industrial/Recreation (IR) Use. As indicated in Table 2-14 of the Town Comprehensive Plan, the purpose of the IR area is to "*allow a mix of light industrial and commercial recreation uses in the area between Enterprise Park and the terminus of the Long Island Expressway*." As the proposed action would convert the subject property to

the permitted light industrial use (i.e., warehouse and indoor manufacturing), it is consistent with the intended purpose and the preferred land use and zoning, as set forth in the Town Comprehensive Plan.

Furthermore, approximately 75 percent of the roof area of the proposed eight (8) buildings would be equipped with solar panels. The proposed development has been designed to accommodate a 3.245 MW rooftop solar array capable of producing 2.4 MW of energy. Electricity from this solar array would be sold via Long Island's community solar program which "refers to local solar facilities where the public (Riverhead constituents) and/or the municipality becoming subscribers receiving credits resulting in a monetary discount on their electricity bills. Hence there is a Direct Community Benefit. The energy is still delivered through their regular electric provider as the power produced from the community solar array is fed directly back to the electric grid. As a result, the grid is supplied with clean, renewable energy, while subscribers get credits on their electric bills." The project would produce approximately 4,100,000 kWh of renewable energy each year over a 20-year period. This is an annual equivalent of removing 625 passenger vehicles from the road or removing 490 homes entirely from the electrical grid.

Required Permits and Approvals

The proposed action is subject to the following permits and approvals:

Agency	Permit/Approval
Town of Riverhead Planning Board	Site Plan Review and Approval
Town of Riverhead Town Board	Riverhead Water District Extension 37R – Calverton
Town of Riverhead Board of Zoning Appeals	Area Variance (Impervious Lot Coverage)
Town of Riverhead Building Department	Building Permits
Town of Riverhead Fire Marshal	Fire Marshal Construction Permits and Fire Alarm/Suppression Systems Permits
Town of Riverhead Water Department	Water Connection
Riverhead Industrial Development Agency	Tax Exemptions (Sales tax, Mortgaging recording, and Real Property tax)
Suffolk County Department of Health Services	Article 6 Permit and Article 12 Permit
Suffolk County Planning Commission	239-m Referral
Suffolk County Department of Public Works	Referral; Sewer Agency Approval
New York State Department of Transportation	Highway Work Permit
New York State Department of Environmental Conservation	State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharge during Construction Activities; and Water Withdrawal Permit Program (for On-site Water Supply Wells)
PSEG Long Island/National Grid	Electric and Natural Gas service connections

POTENTIAL IMPACTS OF THE PROPOSED ACTION

Soils and Topography

Soils

The *Soil Survey of Suffolk County, New York (USDA, 1975) (the "Soil Survey")* classifies the soils as Plymouth loamy sand, 0 to 3 percent slopes (PlA), Plymouth loamy sand, 3 to 8 percent slopes (PlB), Plymouth gravelly loamy sandy, 3 to 8 percent slopes, eroded (PmB3), Plymouth gravelly loamy sandy, 8 to 15 percent slopes,

eroded (PmB3), Riverhead sandy loam, 0 to 3 percent slopes (RdA) and Riverhead sandy loam, 3 to 8 percent slopes (RdB). The soil types have few to no engineering limitations for the development of buildings and sanitary disposal systems on-site, with the exception of PmC3 soils which have moderate limitations due to steep slopes. The PmC3 soils occupy a land area of less than one acre in the northern portion of the site, and within an area proposed for regrading. There are moderate limitations for streets or parking lots identified for those soils with steeper slopes (i.e., PlB, RdB, PmB3) and severe limitations for the PmC3 soils. The proposed grading program includes regrading of the entire site such that approximately 92.47 percent of the project site would be comprised of slopes of less than 10 percent which would overcome limitations for streets or parking lots. There are severe engineering limitations for the establishment of lawns and/or landscaping on the PlA, PlB, PmB3 and PmC3 soils due to sandy surface layers, and the presence of gravel (PmB3 and PmC3 soils only). This limitation would be overcome with soil mixing and the addition of topsoil prior to planting. Overall, there are no engineering limitations that would impact the proposed development.

The subject property would be regraded in its entirety to accommodate the building foundations, internal drive aisles and parking areas, utilities and drainage infrastructure, inclusive of recharge basins, drywells, catch basins and pervious pavers for the proposed development. As indicated on the Overall Site Plan and the Construction Phasing Plan, the proposed action would be undertaken in two phases with Phase 1 consisting of two segments - Phase 1A and Phase 1B. Phase 1A includes 10.75± acres of land area and once stabilized, the work within Phase 1B would commence over 12.64± acres. Phase 2 includes the remaining 6.86± acres.

Approximately 1,555 CY of trees and shrubs would be cleared from the entire project site. It is noted that during construction, approximately 4,298 CY of topsoil would be reused within the Phase 1 and Phase 2 proposed landscaped areas. However, approximately 44,512 CY of topsoil would be removed from the project site. The project site would then be graded for the proposed development and would utilize construction equipment, including but not limited to an excavator, backhoe, and bulldozer for earthwork. The overall grading program would result in an excess cut of approximately 6,279 CY of material. The maximum depths of cut and fill would be 20.2± feet and 14.8± feet, respectively. It is noted that the material cut in Phase 1 would be deposited and used for Phase 2, so removal of material cut would occur entirely during Phase 2. All excess soils would be transported to permitted off-site facilities in accordance with New York State Department of Environmental Conservation (NYSDEC) Part 360.

Based upon an estimated load of 20 CY per construction vehicle, Phase 1A is projected to generate 30 trucks for removal of material associated with clearing and grubbing (i.e., 600 CY of trees and shrubs), 1,917 trucks associated with the removal of topsoil (38,340 CY), and approximately 10 construction equipment deliveries. This equates to approximately 10-15 trucks per day. Phase 1B is projected to generate 35 trucks for removal of material associated with clearing and grubbing (i.e., 699 CY of trees and shrubs), approximately 10 construction equipment deliveries, and 75-90 roll off dumpsters associated with debris removal. Construction traffic during Phase 1B of the proposed action would equate to approximately 1-2 trucks per week. It is noted that all material to be removed during Phase 1 of the proposed development (Phase 1A and Phase 1B) would be expected to occur over a period of approximately six months.

Phase 2 is projected to generate 13 trucks for removal of material for clearing and grubbing (256 CY), 309 trucks for the removal of topsoil (6,172 CY), 314 trucks for exporting cut material (6,279 CY), approximately 10 construction equipment deliveries, and 62-75 roll off dumpsters associated with debris removal. This would equate to approximately 2 trucks per day. It is noted that all material to be removed during Phase 2 of the proposed development would be expected to occur over a period of approximately six months.

In accordance with Chapter 275 of the Riverhead Town Code (*Stormwater Management and Erosion and Sediment Control*), an Overall Soil Erosion and Sediment Control Plan and a Stormwater Pollution Prevention Plan (SWPPP) has been prepared. The proposed erosion and sedimentation controls to be undertaken prior to and during construction would include, at minimum, stockpile protection, minimizing the extent and duration of exposed areas, stabilizing exposed areas, inlet sediment control devices for storm structure protection, silt

fencing, and a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles. All erosion and sediment control measures would be routinely inspected and maintained such that no sediment would be transported off-site. The potential for fugitive dust (i.e., soil particles that become airborne when disturbed by heavy equipment operation or through wind erosion of exposed soil after groundcover is removed) would be controlled with dust control measures including the wetting of surfaces during dry periods. A community air monitoring program (CAMP) has also been prepared for the proposed project which would be implemented, if necessary, during construction. Overall, while the proposed action would clear the entire 30.25 acres, the proposed development would be constructed in two phases and within each phase, erosion and sedimentation controls would be in place such that no significant adverse impacts would be expected.

A Soil & Materials Management Plan (SMMP) dated June 2020 and Revised April 2021 has been prepared for the proposed development in accordance with 6 NYCRR Part 360 (Solid Waste Management Facilities General Requirements) and 6 NYCRR Part 375 (Environmental Remediation Programs), and includes a sampling plan to characterize soils, and detail procedures for the handling of soils during construction activities. Specifically, as indicated in the SMMP, soil characterization (i.e., screening sampling) would be performed to evaluate potential impacts related to the former agricultural usage of the subject property as well as the current and historical usage of the adjacent property to the west of the subject property (i.e., Sky Materials Site). In the event that impacted soils require offsite disposal, endpoint soil samples would be collected after soil management measures are completed to determine whether surface soil concentrations of metals or chlorinated pesticides meet applicable standards. Accordingly, by implementation of the SMMP, any impacted soils would be handled appropriately such that no significant adverse impacts would result.

Topography

The elevations on the site vary from 83.7± feet above mean sea level (amsl) at the northwest corner to 66.7± feet amsl in the southwest portion over a distance of approximately 2,510 linear feet. The elevation of the subject property slopes generally from the north to the south. The proposed action includes regrading the site in its entirety to accommodate the proposed building foundations, infrastructure, drive aisles, utilities, and landscaped areas. As the subject property includes varied topography primarily in the northeast and western portions of the project site, the proposed action would result in the modifications of slopes to achieve a level building area. Upon implementation of the proposed action, the subject property would be modified to generally slope downward from Middle Country Road to the southern end of the project site. Upon completion, the elevations would range from 88± feet amsl in the north to approximately 55± feet amsl in the south. Overall, the proposed changes in slopes would accommodate the proposed development, while minimizing the volume of material required to be removed from the project site. Moreover, the proposed slope modifications would allow for on-site control of stormwater runoff without any significant adverse impacts to the surrounding properties. Overall, no significant adverse impacts associated with the proposed grading and development of the project site would be expected.

Water Resources and Plans

Groundwater

The subject property is located within Groundwater Management Zone III, which is characterized as a deep recharge zone. Pursuant to Article 6 of the Suffolk County Sanitary Code (SCSC), the maximum permitted sanitary discharge for the use of on-site sanitary systems is 300 gpd per acre (43,560 SF) or approximately 9,076 gpd for the 30.25±-acre project site. Based on the SCDHS design flow factors for General Industrial use (0.04 gpd/SF), the projected sanitary discharge from Phase 1 of the proposed development would be approximately 9,059 gpd. As such, Phase 1 would fully comply with Article 6 of the SCSC. Upon implementation of Phase 2 (year 2025), which includes an additional 186,160 SF, the projected sanitary discharge would increase by approximately 7,447 gpd. Overall, the full development is projected to generate approximately 16,506 gpd of sanitary waste. As such, the proposed action includes the construction of a modified subsurface

STP. It is noted that the proposed STP is intended to be over-designed to accommodate a sanitary flow of 20,000± gpd to allow for some flexibility with future tenants.

The proposed STP would be situated in the center of the proposed development along the east side between Building 4 and Building 6 and would be installed during Phase 1 of the construction process. The proposed STP would comply with the SCDHS Appendix A, *Standards for Approval and Construction of Modified Sewage Disposal Systems and Small Community Sewerage Systems* for STPs, including setback to commercial property lines and commercial buildings. The proposed STP would maintain setbacks of 10 feet to Building 4 and Building 6 and 185 feet to the eastern property line. Furthermore, a buffer area of 10 feet would also be provided around the proposed STP and dedicated expansion area, which would be used exclusively for the STP appurtenances. The proposed STP would be a package unit from Purestream, specifically the Biologically Engineered Single Sludge Treatment (BESST) system. A control building would be installed in Building 4 to house the aeration blowers, odor control equipment and the operator's laboratory space.

Based on mass balance calculations for nitrogen loading from sanitary waste, the projected nitrogen loading from the STP at design flow is approximately 1.67 lbs./day. For comparative purposes, the use of conventional systems or Innovative and Alternative On-site Wastewater Treatment Systems (I/A OWTS) would result in nitrogen loading of approximately 6.88 lbs./year and 2.61 lbs./year, respectively.

To further evaluate the nitrogen loading from a comprehensive approach, including fertilizer usage, atmospheric deposition, etc., a BURBS analysis was performed. Based upon the analysis of the BURBS model, the estimated amount of nitrogen leached from the proposed development would be 685.00 pounds per year. This nitrogen loading represents a concentration of nitrogen of 2.13 mg/L, which is slightly over half of the targeted concentration of 4 mg/L to establish allowable sanitary densities. Based upon the aforementioned analysis, the projected nitrogen loading for the proposed development represents an increase over existing conditions; however, the projected loading is significantly below the levels established in the *208 Study* and Article 6 with respect to both wastewater and fertilizer-based nitrogen.

The total projected potable water usage is 20,000± gpd and 1,881± gpd for irrigation demand when averaged over the year. The proposed action includes an extension of the RWD to accommodate water supply for the proposed development. A Water Supply Source Study was prepared to evaluate the public water supply, including the location of public and private wells, to identify nearby contamination, and to determine the capacity and ability for the RWD to serve the proposed development while also considering the impacts to neighboring residential properties during peak water demand times. The Water Supply Source Study concluded that, based on consultations with the RWD, water supply to the subject property for the proposed project would be possible with future planned infrastructure projects inclusive of new storage and supply wells for the RWD. It is anticipated that an impact fee or tax levy may be imposed for the completion of the future planned infrastructure projects. However, in the absence of an approval for insufficient supply to serve the proposed development, the Applicant has evaluated the installation of on-site supply, fire and hydrant wells, as an alternative, which is permitted under Section 760-611 of Article 6.

Stormwater Runoff and Drainage

The proposed action would increase the total impervious surface area from 0± acres to 21.50± acres and, therefore, there would be a resultant increase in the volume of stormwater runoff generated on the subject property. As part of the proposed action, a comprehensive stormwater management plan has been designed in accordance with the Town of Riverhead Town Code Chapter 275 (Stormwater Management and Erosion and Sediment Control) and NYSDEC Stormwater Pollution Prevention Plan (SWPPP) requirements to accommodate and recharge all stormwater on-site. Specifically, the proposed drainage plan consists of a recharge basin, drywells, catch basins and pervious pavers, which have been sized to accommodate a nine-inch storm event which exceeds the 100-year storm event (8.77" over a 24-hour period). A SWPPP has been prepared to ensure compliance with erosion and sediment control practices set forth in the NYSDEC's *New York Standards and*

Specifications for Erosion and Sediment Control, Blue Book (November 2016) as well as to ensure compliance with the water quality and quantity requirements and design standards set forth in the *New York State Stormwater Management Design Manual* (2015).

Also, a consistency analysis of the proposed action with Chapter 275 of the Town Code (Stormwater Management and Erosion and Sediment Control) and the supplementary guidelines for development in the Ind C zoning district, concludes the project's compliance with the performance and design criteria set forth in Chapter 275 and §301-124B.(5) of the Town Code.

Wetlands and Surface Waters

The nearest surface water bodies are State regulated freshwater wetlands and National Wetland Inventory (NWI) freshwater ponds located at approximately 0.35-mile and 0.41-mile west of the project site; 0.78-mile, 0.87-mile, 0.91-mile southwest of project site; 0.87-mile and 1.23 miles southeast of the project site; and 1.16 miles south of the project site. As evaluated by the project engineer, the southern portion of the subject property (approximately 4.49 acres) is located within the boundaries of the Peconic Estuary Watershed.

The proposed action would comply with all required provisions of Article 6, Article 7, and Article 12 of the SCSC. The proposed development also includes the installation and utilization of a STP to reduce nitrogen loading from wastewater on the project site. The STP would be developed and designed in accordance with all SCDHS standards and regulations. The proposed stormwater management system would also comply with the Town's and the NYSDEC's stormwater regulations during and after construction. The proposed action would also comply with the Peconic Estuary Comprehensive Conservation and Management Plan, 2020. Overall, the proposed action would not have any significant adverse impacts to wetlands and surface waters.

Floodplains

As the subject property is not located within a floodplain, no flooding impacts would occur.

Climate Change

The subject property is approximately 2.5 miles south of the Long Island Sound and 4.4± miles northwest of the Peconic River. These are the nearest mapped floodplains with sea level rise influence. Due to the distance, sea level rise is not expected to impact the proposed action. As such, no significant adverse impacts as a result of climate change are anticipated.

Ecological Resources

Ecological Communities

As evaluated by Dr. William P. Bowman of Land Use Ecological Services, Inc. (LUES), the proposed action would result in the loss of 30.25± acres (100 percent) of the successional sandplain grasslands, successional southern hardwood forests, successional shrublands, and pitch pine-oak forests currently present at the project site. The loss of 30.25± acres of early successional grassland and forest communities would result in decreased habitat availability for the plants, birds, and wildlife that utilize these habitats and a decrease in the abundance and diversity of the plant and wildlife species present. The proposed action would result in an increase of 22.46± acres of buildings and impervious surfaces (inclusive of the pervious pavers as they do not provide any beneficial habitat for ecological resources). The proposed 7.79 ± acres of mowed lawn and landscaping consists of maintained turf grass with 10-20± foot wide rows of trees and shrubs along the property boundaries. The proposed landscaping plantings do not include any species listed as invasive by the Long Island Invasive Species Management Area or included on Suffolk County's "No Sale/Transfer List" (Suffolk County Local Law No. 22-2007, Adopted 6-26-2007).

Under the proposed conditions, human disturbance and activity would be substantially increased, the currently existing natural habitats would be lost, and remaining habitat would be limited to only the narrow strips of landscaping and border trees. These landscape buffers would not provide any significant ecological benefits due to the poor diversity and wildlife habitat provided by these areas. Accordingly, under the proposed conditions, only commonplace and commensal (i.e. tolerant of human activity) wildlife species, such as raccoon, eastern cottontail, American robin, house sparrow, mourning dove, and mockingbird are expected to utilize the project site. Those species that are less tolerant of human activity, require greater habitat quality, habitat diversity, or larger patch sizes would not utilize the project site under the proposed conditions.

The resulting habitat loss and any subsequent reductions in local abundance of bird or wildlife species is not a significant adverse environmental impact as the project site's existing successional sandplain grasslands do not provide high-quality early successional habitat due to their small size, encroachment of invasive species and woody vegetation, and the adjacent industrial and agricultural land uses that limit connectivity to nearby EPCAL grasslands. Furthermore, the total area and quality of the successional grasslands at the project site would decline in the future without active management (such as prescribed fire or mowing) due to the encroachment of woody trees and shrubs and gradual transition to successional shrubland or forest habitat.

While many grassland habitats are considered vulnerable by the New York Natural Heritage Program (NYNHP) and have importance in supporting grassland-specialist bird species, grasslands must be sufficiently large to support the breeding of grassland birds (i.e., greater than 500 acres to support grassland birds). The successional sandplain grasslands at the project site (approximately 18 acres) are below the minimum patch size requirements for short-eared owl (20-70 acres), northern harrier (20-40 acres), and grasshopper sparrow (25 acres) and do not contain sufficient areas of exposed, bare soil to provide high-quality nesting habitat for vesper sparrow and horned lark. Accordingly, the loss of the successional grassland area associated with this project is not expected to have any significant adverse impacts to grassland birds.

The southern successional hardwood forest, pitch pine-oak forest, and successional shrubland habitats on the project site are classified by the NYNHP as "demonstrably secure" or "apparently secure" both in New York State and globally. Accordingly, these habitats are abundant both locally and throughout New York State. It is also noted that the forests and successional grasslands present at the project site are not known to provide high-quality habitat for any endangered, threatened, or rare wildlife or plant species. Furthermore, the populations of the commonplace plant and wildlife species inhabiting the forests and successional grasslands found at the subject property are largely considered abundant and stable.

Endangered, Threatened, Rare Species or Significant Ecological Communities

No endangered, threatened, or rare species or significant ecological communities are known or expected to be present on the project site. The project site is located more than 1,000 feet from any known tiger salamander breeding ponds and is separated from potential breeding habitat by large tracts of land uses unsuitable for salamander movement (i.e., sand mine and sod farm uses).

The project site contains habitat that could be utilized by the northern long-eared bat during the summer months. The northern long-eared bat is listed as threatened by both the United States Fish and Wildlife Service (USFWS) and New York State. Due to the presence of summer roost habitat at the project site and documentation of northern long-eared bat foraging over various habitat types throughout eastern Suffolk County, the NYSDEC recommends that any clear-cutting of trees occur during the winter months (between December 1 and February 28 in Suffolk County) to avoid any potential take of this protected species.

Six species listed as Species of Special Concern by New York State are expected to occur on the project site including eastern box turtle, Cooper's hawk, sharp-shinned hawk, grasshopper sparrow, vesper sparrow and horned lark. The eastern box turtle would be expected to utilize any of the naturally vegetated upland habitats

on project site. While box turtles are expected to be present on the project site, the barriers (i.e. sand mine, sod farm, and NYS Route 25) located to the west, north, and east of the project site likely limit this species current abundance on the project site. The project would result in a loss of approximately 30.25 acres of habitat for eastern box turtle and the proposed conditions would provide poor habitat for this species due to potential mortality from mowers in maintained lawn areas and vehicles in roads and parking areas. This is not likely to pose a significant impact to this species due to the regional abundance of suitable habitat for this species. The proposed action would result in a loss of foraging habitat and degradation of habitat quality for Cooper's hawk and sharp-shinned hawk, although these species would likely continue to hunt the human-tolerant songbirds and doves that would utilize the developed property and its lawns and landscaped borders.

The proposed action would result in loss of transient habitat for foraging grasshopper sparrow, but no loss of suitable breeding habitat, as grasshopper sparrow reproductive habitat is generally greater than 25 acres in area. Due to the small size of the subject property and relative paucity of bare ground areas typical of agricultural fields, the subject property does not provide high-quality nesting habitat for vesper sparrows or horned larks. The proposed project would result in the loss of marginal nesting habitat and transient habitat during migrations for vesper sparrow and horned lark and overwintering habitat for horned lark. Accordingly, the loss of the short-lived, low-quality, successional grassland area associated with this project is not expected to have any significant adverse impacts to vesper sparrow or horned lark populations.

Land Use and Zoning

It is the objective of the Applicant to acquire and develop the subject property in accordance with the prevailing zoning (i.e., Ind C) and the Town's stated goals to meet the demand for light industrial space in the Town of Riverhead. The proposed "Calverton Industrial Park" would convert the subject property from vacant, former agricultural land to a mix of 75 percent light industrial warehouse use and 25 percent indoor manufacturing use, with an on-site cafeteria/commissary for all tenants to reduce traffic leaving and entering the project site for meals.

Each of the proposed eight (8) buildings is proposed as a multi-tenant occupancy with user types differing on the east and west sides. The eastern buildings are proposed to be developed with loading docks capable of handling tractor trailers, while the western buildings envision users requiring box trucks. All proposed buildings would be equipped with highspeed loading dock doors and seals.

Access is proposed via one (1) full-movement driveway along Middle Country Road, with signalization of the project site driveway. The proposed site plan includes a total of 101 loading spaces to be located on the east and west sides of the property (i.e., between the building and property line) with approximately 40 to 44 feet of landscape buffers in the side yards. All passenger vehicle parking would be situated in the central portion of the property, between the two rows of buildings. While the proposed action requires 324 parking stalls, the proposed site plan includes 326 total parking spaces, inclusive of 16 ADA accessible parking spaces. As such, the proposed site plan complies with the Town parking requirement for the proposed design.

From a land use perspective, the proposed action is consistent with the underlying intent of the prevailing zoning for light industrial land uses. The surrounding area can be generally characterized by large lot commercial and retail uses on the south side of Middle Country Road to the east of the project site, interspersed with agricultural and residential land uses on the north.

The width of the property (limited to 511± feet) and the depth of the property (2,510± feet) allows for the bulk of the development to be situated out of the roadway corridor viewshed. The proposed land use responds to the stated demand for industrial development in the Town of Riverhead which is further supported by the market and demand data provided by the FMS. Additionally, the subject property is located within a federal Opportunity Zone (Long Island Region) community development program and the proposed land use is consistent with the economic goals for the federal Opportunity Zone. Overall, given that the proposed land use

is consistent with the prevailing zoning, Town Comprehensive Plan, and the Opportunity Zone, while also affording a site geometry that will serve to limit views of the development from Middle Country Road, no significant adverse impacts would occur from the proposed development.

The proposed action complies with the bulk and dimensional requirements under the Ind C zoning district of the Town of Riverhead as well as the supplementary guidelines, regulations and performance standards for the Ind C zoning district. However, the proposed development would exceed the maximum impervious surface area permitted in the Ind C district by 11.07 percent (145,915 SF). The additional 11.07 percent of impervious surface area (inclusive of buildings and pavement) is due to the pavement area necessary for the truck circulation and turning movements. As part of the proposed action, an area variance is being requested from the Town of Riverhead Board of Zoning Appeals (BZA) for the additional impervious surface. An analysis of the specific criteria for the granting of the variance under New York State Town Law Article 16, Section 267-B, has been performed and indicates that the proposed variance would not result in a detriment to the health, safety, or welfare of the neighborhood or community.

As the proposed action would convert the subject property to the permitted light industrial use (i.e., warehouse and indoor manufacturing), it is consistent with the preferred land use and zoning, as set forth in the Town Comprehensive Plan and the current Town Zoning Map (2015), respectively. The proposed action would use generous landscaping and open space buffers along the subject property's frontage to protect the rural appearance and minimize views of the proposed development from Middle Country Road consistent with the design guidelines for Inc C zoning district included in the Town Comprehensive Plan. The proposed development would also provide continuous sidewalks along NYS Route 25 and interior the project site as well as install bike racks to accommodate bicyclists consistent with the transportation safety goals and policies of the Town Comprehensive Plan. Overall, the proposed development is consistent with the stated land use, polices and goals for increased industrial development, as set forth in the Town Comprehensive Plan. It is also noted that the proposed development is consistent with the recommendations and goals for preservation and revitalization set forth in the Long Island North Shore Heritage Area Management Plan.

Transportation

The Traffic Impact Study (TIS) prepared by Stonefield Engineering & Design LLC., (Stonefield) included an evaluation of the 2023 Phase 1 No-Build condition, 2023 Phase 1 Build condition, 2025 Phase 2 No-Build condition and 2025 Phase 2 Build condition along with projected trip generation rates for Phase 1 and Phase 2 of the proposed action. The TIS also evaluated other potential development projects, different site access conditions, site circulation and projected construction trip generation.

Projected Trip Generation

According to the TIS, the peak hour trips for the 2023 Phase 1 Build Condition of the proposed action includes: 90 total trips (73 entering, with 68 passenger vehicles and 5 trucks, and 17 exiting, with 11 passenger vehicles and 6 trucks) during the weekday morning peak hour, 90 total trips (19 entering, with 16 passenger vehicles and 3 trucks, and 71 exiting, with 65 passenger vehicles and 6 trucks) during the weekday evening peak hour, and 99 total trips (32 entering, with 28 passenger vehicles and 4 trucks, and 67 exiting, with 61 passenger vehicles and 6 trucks) during the Saturday midday peak hour. It is noted the proposed commissary would not generate traffic or parking demand independent of the industrial park as it would be used only by tenants. The projected trip generation for Phase 1 of the proposed action would not significantly adversely impact the adjacent roadway network.

According to the TIS, the peak hour trips for the 2025 Phase 2 Build Condition of the proposed action includes: 74 total trips (60 entering, with 54 passenger vehicles and 4 trucks, and 14 exiting, with 9 passenger vehicles and 5 trucks) during the weekday morning peak hour, 74 total trips (15 entering, with 12 passenger vehicles and 3 trucks, and 59 exiting, with 55 passenger vehicles and 4 trucks) during the weekday evening peak hour,

and 82 total trips (26 entering, with 23 passenger vehicles and 3 trucks, and 56 exiting, with 51 passenger vehicles and 5 trucks) during the Saturday midday peak hour. The TIS has concluded that the projected trip generation for the overall development would not significantly adversely impact the adjacent roadway network.

Site Access, Site Circulation and Parking Supply

Site Access

Improvements in the public right-of-way would be needed to permit access to the subject property. Site access is proposed via one (1) full-movement driveway along Middle Country Road, with signalization of the project site driveway. In addition to the proposed site access, the TIS considered three (3) other site access conditions for the proposed action (Conditions A, B, and C). Per the date of the TIS, a final access configuration has not been confirmed; however, signalization is preferred.

Site Access Condition A considers cross access with the property immediately to the west of the project site. Access would be provided via two points - a signalized access point at the intersection of Middle Country Road and Fresh Pond Avenue and an unsignalized access point along the Middle Country Road frontage. In correspondence dated March 9, 2021, Calverton Industries, LLC, the owner of a portion of the property to the west of the subject property advised that a cross-access would be "detrimental" to future plans and could not accommodate the request. A formal response from New England Retail Properties, Inc., the second owner, is pending; however, verbal discussions suggest there is no interest due to the future pad build-out. Accordingly, Condition A is not feasible for the Applicant.

Site Access Condition B considers access via a full-movement signalized access point along the Middle Country Road frontage. To assist in determining whether a traffic signal should be installed, Stonefield has prepared a Traffic Signal Warrant Analysis, dated April 19, 2021. Based on the adjacent roadway volumes and site generated traffic, a traffic signal is warranted at the subject location per the Manual on Uniform Traffic Control Devices (MUTCD) standards. Note that the NYSDOT retains jurisdiction over improvements in the Middle Country Road right-of-way and review with the NYSDOT is on-going. No improvements would be provided at the adjacent intersection with Fresh Pond Avenue which would remain unsignalized. Cross access to the property to the west would not be provided.

Site Access Condition C considers access via an unsignalized access point along the Middle Country Road frontage. The widening of Middle Country Road to provide a westbound left-turn lane at the westbound approach to the traffic signal at Fresh Pond Avenue and a two-way left-turn lane extending between the aforementioned left-turn lane and the eastern extent of the project site's Middle Country Road frontage is also considered under this access.

Site Circulation and Parking Supply

Construction of the proposed development would be completed in two phases. In total, 101 loading spaces would be provided. All loading spaces would be located on the outer extents of the subject property, between the lot lines and the proposed buildings. Passenger vehicle parking would be concentrated in the center portion of the subject property between the two rows of buildings. The parking field would be separated by a 26-foot, two (2)-way drive aisle. The proposed action would provide 326 total parking spaces, inclusive of sixteen (16) ADA accessible parking spaces, which meets the parking requirement. The 1,500-SF commissary is excluded from the parking requirement calculation as it is an ancillary use to the industrial park and is anticipated to be patronized by employees of the same. It is noted that a select number of electric vehicle charging stations would be included in the parking areas. The proposed development has been designed for the separation of truck and vehicular traffic, safe pedestrian movements, and complies with the Town of Riverhead parking standards.

LOS/ Capacity Analysis

Level of Service (LOS) analyses were conducted for the 2020 Existing, 2023 No-Build, 2023 Phase 1A Build Condition, 2023 Phase 1B Build Condition, 2023 Phase 1C Build Condition, 2025 No-Build Phase 2A Condition, 2025 No-Build Phase 2B Condition, 2025 No-Build Phase 2C Condition, 2025 Phase 2A Build Condition, 2025 Phase 2B Build Condition and 2025 Phase 2C Build Condition for the key signalized intersections of Middle Country Road and Burman Boulevard and Middle Country Road and Edwards Avenue, and unsignalized intersections of Middle Country Road and Fresh Pond Avenue, LIE Off-Ramp and Edwards Avenue and Middle Country Road and the site driveway.

The signalized and unsignalized intersection analysis for the 2023 Phase 1 Build Condition A, 2023 Phase 1 Build Condition B, and 2023 Phase 1 Build Condition C concluded that the study intersections are otherwise calculated to operate generally consistent with the findings of the 2023 Phase 1 No-Build Condition during the study peak hours. As such, Phase 1 of the proposed action would not result in significant adverse impacts to the traffic operations of the adjacent roadway network. The LOS at the proposed site access was also evaluated in the TIS. The TIS concluded that proposed driveway and on-site layout have been designed to provide for effective access to and from the subject property and access conditions for Phase 1 of the proposed development.

The signalized and unsignalized intersection analysis for the 2025 Phase 2 No-Build Condition A, concluded that the study intersections are otherwise calculated to operate generally consistent with the findings of the 2023 Phase 1A Build Condition during the study peak hours. The signalized and unsignalized intersection analysis for the 2025 Phase 2 No-Build Condition B, concluded that the study intersections are otherwise calculated to operate generally consistent with the findings of the 2023 Phase 1B Build Condition during the study peak hours. The signalized and unsignalized intersection analysis for the 2025 Phase 2 No-Build Condition C, concluded that the study intersections are otherwise calculated to operate generally consistent with the findings of the 2023 Phase 1C No-Build Condition during the study peak hours.

The signalized and unsignalized intersection analysis for the 2025 Phase 2 Build Condition A, concluded that the study intersections are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2A No-Build Condition during the study peak hours. The signalized and unsignalized intersection analysis for the 2025 Phase 2 Build Condition B, concluded that the study intersections are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2B No-Build Condition during the study peak hours. The signalized and unsignalized intersection analysis for the 2025 Phase 2 Build Condition C, concluded that the study intersections are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2C No-Build Condition during the study peak hours.

Under the 2025 Phase 2A, 2B, and 2C Build Conditions, the northbound left turn movement at the signalized intersection of Middle Country Road and Edwards Avenue is to operate with capacity constraints during the weekday morning peak hour. Stonefield recommends minor signal timing modifications for the NYSDOT's consideration as mitigation. As discussed earlier in this section, there is a signal modification proposed by NYSDOT at this intersection. At this time, it is unknown how the NYSDOT intersection improvements would modify the Phase 2 Build Condition. The following modification would mitigate the calculated increase in delay and create more favorable operating conditions in the 2025 Phase 2A, 2B, and 2C Build Conditions.

Projected Construction Trip Generation

Based upon an estimated load of 20 CY per construction vehicle, Phase 1A is projected to generate 30 trucks for removal of material associated with clearing and grubbing (i.e., 600 CY of trees and shrubs), 1,917 trucks associated with the removal of topsoil (38,340 CY), and approximately 10 construction equipment deliveries.

This equates to approximately 10-15 trucks per day. Phase 1B is projected to generate 35 trucks for removal of material associated with clearing and grubbing (i.e., 699 CY of trees and shrubs), approximately 10 construction equipment deliveries, and 75-90 roll off dumpsters associated with debris removal. It is noted that the material cut in Phase 1 would be deposited and used for Phase 2, so removal of material would occur entirely during Phase 2. Construction traffic during Phase 1B of the proposed action would equate to approximately 1-2 trucks per week. It is noted that all material to be removed during Phase 1 of the proposed development (Phase 1A and Phase 1B) would be expected to occur over a period of approximately six months. Phase 2 is projected to generate 13 trucks for removal of material for clearing and grubbing (256 CY), 309 trucks for the removal of topsoil (6,172 CY), 314 trucks for exporting cut material (6,279 CY), approximately 10 construction equipment deliveries, and 62-75 roll off dumpsters associated with debris removal. This would equate to approximately 2 trucks per day. It is noted that all material to be removed during Phase 2 of the proposed development would be expected to occur over a period of approximately six months. Overall, traffic associated with construction of the proposed development would not have a significant adverse impact on the surrounding roadway network.

Aesthetic Resources

The proposed industrial buildings would be set back from the roadway to maintain the existing viewshed of open space. The use of generous landscaping and open space buffers is intended to preserve the rural appearance and minimize views into the property from Middle Country Road. The proposed building design includes materials such as corrugated steel metal panels, aluminum glass façades and windows, and concrete panels. The top of the roofs for all eight (8) buildings would be lined with white metal panels which would act as a white roof membrane to conserve energy use and would be equipped with solar panels.

To assess the potential impacts of the proposed development, the project architect, BLD Architecture, prepared building floor plans, building elevations and renderings/photo-simulations from various vantage points of the proposed industrial use. The prepared renderings/photo-simulations from various vantage points were established to depict aerial views of the overall proposed development as well as publicly accessible ground views from Middle Country Road and the EPCAL walking trail where the buildings may be visible. The vantage points were (1) north entrance view along Middle Country Road; (2) street view along Middle Country Road; (3) EPCAL walking trail south of the proposed development; (4) north aerial view; and (5) south aerial view.

Views of the subject property from Middle County Road would include the existing overhead utility poles, the proposed landscaping, lighting and ornamental fence within the front yard and the proposed sidewalk along the site frontage. Portions of Buildings 1 and 2 would also be visible. The proposed landscaping would obscure direct views into the project site. Clear views into the subject property would be limited to the site access point along Middle Country Road, which is approximately 55 feet in width.

The proposed action has been modified since the adoption of the Final Scope to relocate the drainage area (i.e., recharge basin) from the front yard setback to a single basin in the rear yard, thus eliminating the publicly accessible view from Middle Country Road. Views for passersby along the EPCAL walking trail to the south of the subject property would be that of the existing chain-link fence with barbed wire, the proposed vegetation and portions of the recharge basin, with portions of select buildings (Buildings 7 and 8) as well as the center drive aisle. However, the proposed vegetative buffers would largely obscure views of the proposed development from the EPCAL walking trail.

In order to accommodate the proposed recharge basin in the rear yard, Building 4, Building 6, Building 7 and Building 8 have been reduced in building area by 11,335 SF and setback approximately 111 feet further as the minimum depth of the rear yard was increased (i.e., from 84.2± feet to 195.2± feet). The decrease in building area and increase in rear yard depth would further reduce publicly accessible views of the proposed buildings from the EPCAL walking trail. Furthermore, as noted above, the installation of generous landscaping provided within the rear yard along the southern portion of the project site would also obscure clear views of the

proposed buildings, center drive aisle and recharge basin from passersby along the EPCAL walking trail south of the subject property.
Views of the proposed development to the east of the subject property would consist of the existing forested land on the active sod farm's western boundary, the proposed chain-link fence and the proposed vegetated buffers. It is noted that these views are not publicly accessible. The overall subject property cannot be seen as the existing forested land along the western boundary of the sod farm site and the proposed vegetative buffers along the subject property's eastern boundary would obscure clear views of the proposed development.

Upon implementation of the proposed action, views of the existing forested area on the subject property along the EPCAL walking trail to the west of the project site would be eliminated in the distant horizon and it is expected that the proposed buildings would not be visible from these areas of the EPCAL walking trail west of the subject property as Sky Materials blocks many views of the subject property.

While the proposed project would change the visual character of the subject property from undeveloped vacant land, the proposed project would be consistent with existing development in the immediate surrounding area. The proposed development would maintain large setbacks from Middle Country Road with aesthetically-pleasing landscaping in the front yard, similar to the Tractor Supply site west of the subject property. The proposed development would maintain the existing viewshed of open space and spread out land uses along Middle Country Road. The use of generous landscaping and open space buffers is intended to protect the existing rural appearance of the area. Overall, the proposed development is not expected to result in significant adverse impacts on aesthetic resources including from publicly accessible views.

The proposed site lighting would consist of exterior site lighting (i.e., pole-mounted light fixtures) and wall-mounted fixtures on the proposed buildings. The proposed fixtures would be equipped with housing shields to direct light downward and all lighting is proposed to be LED and dark sky compliant. A photometric analysis of each proposed lighting pole was performed and indicates there would be no off-site or trespass lighting with the proposed lighting in place. Furthermore, the proposed lighting would comply with Chapter 301, Article XLIX Exterior Lighting, of the Town Code, specifically §§301-256 and 301-259. The proposed site lighting has been designed to illuminate the subject property in an efficient manner that would minimize nuisances from light intensity, glare and light trespass. Overall, the proposed lighting plan is not expected to result in significant adverse impacts on aesthetic resources.

Historic and Archaeological Resources

The subject property was investigated for its archaeological significance through literature review, walk-throughs, shovel test pits, and historic photos by the project archaeologist, Carol Weed, MA, RPA. Based on the results of the Phase IB and Phase II and correspondence from New York State Office of Parks, Recreation and Historic Preservation (OPRHP) on February 23, 2021, OPRHP concurring that USN 10306.001191 did not meet the eligibility criteria of either New York State or National Registers of Historic Places, and thus, the subject property was deemed not significant and no additional work was recommended with regards to archaeological considerations. Accordingly, no significant adverse impacts to cultural resources would result from the proposed action.

Construction-Related Impacts

Potential Impacts Associated with Land Disturbance

Based upon the proposed site plan, the whole project site would involve ground disturbance to some extent. During construction activities, there is the potential for erosion and sedimentation with prolonged soil exposure and fugitive dust during dry periods. To minimize the potential for erosion and sedimentation, a Soil Erosion and Sediment Control plan and a SWPPP have been prepared. All erosion and sedimentation controls would be installed prior to the commencement of work and would be inspected and maintained during

construction. In accordance with §275-7 of the Town Code, the erosion and sedimentation controls and methods by which stormwater would be accommodated during construction have been designed to be consistent with the NYSDEC's *New York Standards and Specifications for Erosion and Sediment Control, Blue Book* (November 2016), the NYSDEC's *New York State Stormwater Management Design Manual* (2015). Water quantity and water quality controls (post-construction stormwater runoff controls) have also been included. A SMMP has been prepared for the proposed development and includes a sampling plan to characterize soils, and detail procedures for the handling of soils during construction activities. Specifically, as indicated in the SMMP, soil characterization (i.e., screening sampling) would be performed to evaluate potential impacts related to the former agricultural usage of the subject property as well as the current and historical usage of the adjacent property to the west of the subject property (i.e., Sky Materials Site). In the event that impacted soils require offsite disposal, endpoint soil samples will be collected after soil management measures are completed to determine whether surface soil concentrations of metals or chlorinated pesticides meet applicable standards.

The potential for fugitive dust (i.e., soil particles that become airborne when disturbed by heavy equipment operation or through wind erosion of exposed soil after groundcover is removed) would be controlled with dust control measures including the wetting of surfaces during dry periods. A CAMP has also been prepared for the proposed project which would be implemented, if necessary, during construction.

Overall, based on the above, no significant adverse impacts associated with land disturbance during construction would be expected.

Potential Construction-Related Stormwater Impacts

In accordance with §275-7 of the Town Code, a SWPPP report has been prepared for the proposed development. As part of the proposed action, the proposed recharge basin would be constructed during Phase 1A and all stormwater runoff during construction would be captured, diverted to the recharge basin and/or other pervious areas and would be retained on-site. Thus, no significant adverse impacts associated with stormwater generated during construction activities is expected.

Potential Construction-Related Traffic Impacts

As noted above, the TIS evaluated potential construction-related impacts associated with truck traffic. The TIS concluded that no significant adverse impacts on the surrounding roadway network would result.

Energy Resources

As the subject property is currently undeveloped and vacant land, the proposed development would require new connections for natural gas and electrical supply from the utility providers. Consultations have been undertaken with National Grid and PSEG Long Island through written correspondence dated May 20, 2020 (PSEG Long Island correspondence) and February 9, 2021 (National Grid and PSEG Long Island correspondence) from Emtec. Within said correspondence, the projected gas and electrical demands for the proposed action were provided: estimated gas load of 955,000 British thermal units (BTUs) and estimated electricity load of 4,573 kilo-volt-amperes (kVA). National Grid and PSEG Long Island have confirmed adequate capacity to service the proposed development. It is noted that the proposed development has been designed to accommodate a 3.245 MW rooftop solar array capable of producing 2.4 MW of energy.

The proposed buildings would be designed to meet or exceed the requirements of the New York State Building and Energy Code (NYS Code). By following and complying the current requirements of this code, the proposed buildings would meet the minimum requirements for a LEED/Green certification. As provided by the project architect, measures would be implemented beyond what is required by the code in terms of energy efficiency: (1) increased insulation values for the building envelope to retain heated and cooled air; (2) white roof

membrane; (3) high efficient ratings of the mechanical equipment; (4) low flow water fixtures to reduce water consumption (5) natural daylighting; (6) all buildings would be equipped with highspeed loading dock doors and seals; and (7) select number of electric vehicle charging stations would be included in the parking areas.

PROPOSED MITIGATION MEASURES

The following measures that have been incorporated into the proposed action to avoid, minimize or mitigate potential environmental impacts of the project.

Soils and Topography

- Prior to construction, the proposed SMMP will address any potential impacts from the past on-site agricultural practices and the adjacent Sky Materials Site such that soils and materials are properly categorized and handled in accordance with prevailing regulations.

- The proposed CAMP will be implemented, as needed, to protect on-site construction workers and the downwind community from potential airborne contaminant releases resulting from construction activities performed at the subject property.

- Erosion and sedimentation controls will be undertaken prior to and during construction and would include, at minimum, stockpile protection, minimizing the extent and duration of exposed areas, stabilizing exposed areas, inlet sediment control devices for storm structure protection, silt fencing, and a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles. All erosion and sediment control measures will be routinely inspected and maintained such that no sediment would be transported off-site.

- The proposed removal of material to achieve finished grades and the overall site design (inclusive of the recharge basin) will be performed by licensed carters and all material will be transported to permitted off-site facilities in accordance with NYSDEC Part 360.

Water Resources and Plans

- The proposed action includes the construction of a STP to accommodate all sanitary waste from the development. The proposed BESST system has demonstrated that effluent meets the NYSDEC SPDES requirements for reduction of nitrogen and suspended solids. Adequate space has also been allocated for the 100 percent expansion of the treatment plant and leaching pools in accordance with SCDHS requirements. Groundwater monitoring wells will be installed both upstream and downstream of the effluent disposal system to monitoring groundwater quality. Additionally, as required by the SPDES permit, a full-time operator will be present each day to make process adjustments to ensure the performance of the STP is optimized.

- The proposed action includes the installation of a stormwater management system that will contain, and recharge stormwater runoff associated with a 100-year storm event. The proposed stormwater management controls will include both structural infiltration (drywells, catch basins and pervious pavers) and non-structural methods (one recharge basin).

- The proposed SWPPP includes a detailed erosion and sediment control plan to manage stormwater generated on-site during construction activities, as well as post-construction stormwater management. Furthermore, the prepared SWPPP has been designed to ensure compliance with the water quality and water quantity requirements of the SPDES GP 0 20 001.

- The proposed project will incorporate native and/or drought tolerant plantings for water conservation and will utilize a smart irrigation control system to reduce or eliminate the use of the irrigation system during periods of rain.

- The proposed landscaping plan would consist of native and/or drought-tolerant plants and groundcover to promote water conservation and minimize the need for fertilization to the maximum extent practicable.

Ecological Resources

- The proposed landscaping trees and shrubs will consist primarily of native species including eastern red cedar, eastern white pine, red maple, ninebark, arrowwood, black chokeberry and inkberry holly. The proposed landscaping plantings will not include any species listed as invasive by the Long Island Invasive Species Management Area or included on Suffolk County's "No Sale/Transfer List" (Suffolk County Local Law No. 22-2007, Adopted 6-26-2007).

- Any clear-cutting of trees would occur during the winter months (between December 1 and February 28) in accordance with NYSDEC recommendations to avoid any potential take of northern long-eared bat in Suffolk County, a species listed as threatened by both the USFWS and New York State. Winter clearing of the trees will also minimize potential impacts to breeding wildlife and birds.

Land Use and Zoning

- The planting buffers within the side yards would be between 40 and 44 feet and the rear yard would include a minimum of 31.9 feet of planting buffers, which far exceed the 10-foot buffer requirement (§301-124A.4.B). The proposed landscaped buffers along the side yards and rear yard would screen the development from the adjacent land uses and the EPCAL waking trail, respectively.

- Approximately 23.19 percent of the subject property would be contiguous landscaping, which exceeds the minimum requirement of 20 percent, pursuant to §301-123.B. The proposed extensive front yard landscaping and open space buffers would effectively screen the development from the corridor traffic along Middle Country Road.

- The proposed design provides for greater front, side and rear yard setbacks than what is required (Required Front, Side, and Rear Yards: 30 Feet, 60 Feet Combined, and 50 Feet, respectively; Proposed: 124.7 Feet, 221 Feet, and 195.2 Feet) to maintain the rural appearance of the surrounding area.

Transportation

- In addition to the improvements at the signalized intersection of Middle Country Road and Edwards Avenue that will be undertaken by the NYSDOT, the proposed TIS recommends a potential signal timing modification at this signalized intersection for the NYSDOT's consideration. The signal timing modification will mitigate the calculated increase in delay and create more favorable operating conditions in all 2025 Phase 2 Build Conditions.

Aesthetic Resources

- The industrial buildings will be set back from the roadway to maintain the existing viewshed of open space. The use of generous landscaping and open space buffers is intended to preserve the rural appearance and minimize views into the property from Middle Country Road.

- The proposed action includes generous landscaping along the side and rear yards to effectively screen the development from the adjacent properties and the EPCAL walking trail, respectively.

- The proposed action has been modified to relocate the proposed recharge basins along the project site frontage to a single recharge basin to the south of the project site to minimize publicly accessible views of the recharge basin from Middle Country Road, which was noted as a potential visual concern during the public scoping period.

- The proposed action has been modified to increase the depth of the rear yard for the installation of the recharge basin and for additional landscaping which will obscure views of the proposed buildings and recharge basin from the EPCAL walking trail.

- The proposed lighting will be downlit and shielded to avoid off-site light trespass and upward glare.

Construction-Related Impacts

- Erosion and sedimentation controls will be undertaken prior to and during construction and would include, at minimum, stockpile protection, minimizing the extent and duration of exposed areas, stabilizing exposed areas, inlet sediment control devices for storm structure protection, silt fencing, and a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles. All erosion and sediment control measures will be routinely inspected and maintained such that no sediment would be transported off-site.

- The proposed SWPPP includes a detailed erosion and sediment control plan to manage stormwater generated on-site during construction activities, as well as post-construction stormwater management. Furthermore, the prepared SWPPP has been designed to ensure compliance with the water quality and water quantity requirements of the SPDES GP 0 20 001.

- Prior to construction, the proposed SMMP will address potential impacts from the past on-site agricultural practices and the adjacent Sky Materials Site such that soils and materials are properly categorized and handled in accordance with prevailing regulations.

- The proposed CAMP will be implemented, as needed, to protect on-site construction workers and the downwind community from potential airborne contaminant releases resulting from construction activities performed at the subject property.

Energy Resources

- Installation of rooftop solar panels for use by Long Island's community solar program. The energy generated by the solar panels is an annual equivalent of removing 625 passenger vehicles from the road or removing 490 homes entirely from the electrical grid. Furthermore, since the panels would be installed on the rooftops, no usable land would be taken by the project.

- In addition to solar, the proposed development would incorporate energy efficient measures including increased building insulations values, a white roof membrane, high efficient ratings of the mechanical equipment, low flow water fixtures, natural daylighting, highspeed loading dock doors and seals, and electric vehicle charging stations in the proposed parking areas.

ALTERNATIVES AND THEIR ANTICIPATED IMPACTS

Alternative 1: No Action/Existing Alternative

This alternative plan involves leaving the project site as it currently remains, absent the proposed action and the continuation of the project site as undeveloped land. The No-Action Alternative would not result in any changes to traffic patterns, the current noise environment, community services, or utilities provided (e.g., water usage, sanitary discharge, and electrical usage). There would be no changes to the visual quality of the project site, or the character of the community. The projected job generation, increased tax revenue and economic benefits of the proposed development would not be realized. Moreover, the No-Action Alternative is not consistent with the intent of the Ind C zoning district or the economic development goals for the subject property. Finally, the No-Action Alternative does not achieve the objectives of the federal Opportunity Zone. Overall, the subject property is a privately owned parcel situated within the Ind C zoning district of the Town of Riverhead and the objective of the Applicant is to develop the property in accordance with the prevailing zoning regulations. Accordingly, the No-Action Alternative does not achieve the objectives of the Applicant.

Alternative 2: Maximum Build Out Plan with As-of-Right Uses

The Alternative 2, Maximum Build Out Plan with As-of-Right Uses, includes a maximum build out scenario for the most intense uses of the land with respect to water demand, nitrogen loading, traffic and parking, that are permitted under the current zoning of the subject property. The following uses and development program were considered:

- Warehouse/Manufacturing use: 224,969± SF
- Wholesale business: 48,704± SF
- Commercial sports and recreational facilities: 50,990± SF
- Indoor manufacturing: 48,704± SF

The Maximum Build Out Plan includes six (6) buildings and a STP sized to 20,000 gpd. Phase 1 would be the same as that proposed, four buildings with a total GFA of 224,969± SF and comprised of warehouse and indoor manufacturing space. Phase 2 would include a 50,990± SF building for use as a commercial sports and recreational facility, and the second building would be 97,408± SF and divided into two equal spaces: 48,704± SF for a wholesale business and 48,704± SF for indoor manufacturing (i.e., commercial bakery).

Alternative 3: Proposed Development with Alternative Water Source

This alternative includes the installation of on-site supply wells to serve the water demands of the proposed development. Specifically, based on the proposed development program, this alternative includes a 130 GPM supply well for potable and irrigation water, a 375 GPM fire suppression supply well for the buildings, and a 1,500 GPM hydrant supply well. This alternative was evaluated in the Water Supply Source Study and the potential impacts on surrounding wells, surface water bodies, and nearby contamination were also modeled in a Groundwater Modeling report, both appended to this DEIS.

This alternative demonstrates the feasibility of on-site supply wells to meet the water demands of the proposed development in accordance with prevailing regulatory requirements without a significant adverse impact to surrounding private and public wells. However, based on consultations with the RWD, public water supply to the subject property for the proposed project would be possible with future planned infrastructure projects inclusive of new storage and supply wells. It is anticipated that an impact fee or tax levy may be imposed for the completion of the future planned infrastructure projects. It is proposed that all water for domestic use be supplied by the RWD and if required, an irrigation well would be installed to supply irrigation needs on the project site.

Alternative 4: Completing Construction in a Single Phased Rather Then Phased Development

This alternative includes the construction of the proposed development in one-phase rather the proposed two-phase construction plan with Phase 1 completed in 2023 and Phase 2 completed in 2025. However, according to the project sponsor, a single-phase construction would not be possible due to the terms applied by the lender for the construction loan. Specifically, the construction loan would be phased, where financing for Phase 2 would be released only after Phase 1 is complete and tenants are secured. Pursuant to §617.9(b)(5)(v) of the implementing regulations of SEQRA, a DEIS is to include "…a description and evaluation of the range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor." As a single-phased project is not feasible for the project sponsor, this alternative cannot be considered and was not evaluated.

Alternative 5: Proposed Development with On-site Septic System Rather Than On-site STP

This alternative includes the same development program as the proposed action but would use an on-site septic system instead of an STP for the collection and discharge of sanitary wastewater from the proposed action. As compared to the proposed action, this alternative would include the projected volume of sanitary waste (16,506± gpd) to be handled with I/A OWTS and would require the purchase of TDRs to achieve the required density. While this alternative would not result in significant adverse impacts on groundwater resources, this alternative would have a greater impact on groundwater quality with increased nitrogen loading and increased concentrations of nitrogen leached. Furthermore, this alternative would not provide for flexibility with future tenant needs which are not known at this time.

Alternative 6: Proposed Development with Alternate Drainage Design

This alternative has been prepared to eliminate publicly accessible views of the recharge basin from Middle Country Road and from the EPCAL walking trail. It is noted that the site plan for the proposed action responds partially to the purpose of this alternative (i.e., elimination of recharge basins from the road). This alternative includes a similar drainage design as the proposed action but the recharge basin at the south of the subject property has been removed and relocated to the western portion of the project site in between Building 1 and Building 3, thus removing publicly accessible views of the recharge basin from the EPCAL walking trail. Of notable difference is this alternative includes four (4) large buildings, as opposed to the eight (8) smaller buildings, which does not allow for preferred campus layout for industrial developments within the Town. Furthermore, the mass of the four (4) larger buildings may result in adverse aesthetic impacts. It is noted that views of the recharge basin in the south, as proposed, would be largely obscured with vegetation. As such, the design change for the elimination of a recharge basin from the walking trail is not preferred.

Alternative 7: Proposed Development with Cross Access Across Sky Materials Site

This alternative includes a cross-access agreement with the property owner to the west for entry to the subject property from the intersection of Fresh Pond Avenue, at Middle Country Road. Consultations were undertaken by the Applicant with Calverton Industries, LLC (owners of the adjacent Sky Materials Site) as well as New England Retail Properties, Inc (owners of Tractor Supply). In correspondence dated March 9, 2021, Calverton Industries, LLC advised that a cross-access would be "detrimental" to future plans and could not accommodate the request. A formal response from New England Retail Properties, Inc. is pending; however, verbal discussions suggest there is no interest due to the future pad build-out. Accordingly, this alternative plan is not feasible for the Applicant.

1.0 DESCRIPTION OF PROPOSED ACTION

1.1 Project Location, Background, and Site Conditions

1.1.1 Project Location

The subject property is a 30.25±-acre parcel located on the south side of Middle Country Road (also referred to as "NYS Route 25") and approximately 405 feet east of Fresh Pond Avenue at 4285 Middle Country Road, in the hamlet of Calverton within the Town of Riverhead (see Figure 1 in Appendix A of this DEIS) and is designated Suffolk County Tax Map No: District 600 – Section 116 – Block 1 – Lot 2 (see Figure 2 in Appendix A of this DEIS). The project site is comprised of vacant land and was formerly used in part for agricultural purpose. According to project site data provided by the project engineer, Key Civil Engineering, P.C., approximately 13.83 acres consists of woodland and the remaining 16.42± acres is comprised of meadow/brushland (associated with the former agricultural use).

1.1.2 Project Background

The proposed action consists of the development of the Calverton Industrial Park, a light industrial use consisting of eight (8) buildings with a total gross floor area of 412,629 square feet (SF). The initial site plan application was filed with the Town of Riverhead on February 2, 2020, with additional information submitted by the Applicant, HK Ventures, LLC., on July 9, 2020, including revised Site Development Plans, Stormwater Pollution Prevention Plans and Report, and revised solid waste calculations, as prepared by Key Civil Engineering, P.C.; Traffic Impact Study and Traffic Mitigation Plan, as prepared by Stonefield Engineering & Design, LLC. (hereinafter "Stonefield"); Revised Ecological Letter Report, as prepared by Land Use Ecological Services; Phase IA Documentation/Assessment Report, as prepared by Carol S. Weed, MA; Service Availability Request Letters from Emtec Consultants PLLC (hereinafter "Emtec") to PSEG Long Island and National Grid; Application for Water Extension to the Riverhead Water District (RWD); Soil and Materials Management Plan (SMMP) and Land Use, Zoning and Consistency with Land Use Plans Assessment, as prepared by P.W. Grosser Consulting, Inc. (PWGC); and Marketing Analysis, as prepared by Zere Real Estate Services, Inc.

The Town of Riverhead Planning Board, after coordinated review with involved and interested agencies, classified the action as "Type I" and assumed lead agency on July 16, 2020. A Positive Declaration was issued by the Planning Board, on August 6, 2020. Subsequent to the filing of a Draft Scope by the Applicant with the Town of Riverhead, a public scoping meeting was held on November 5, 2020 and a Final Scope was issued on November 19, 2020.

Subsequent to the issuance of the Final Scope by the Planning Board, and during preparation of this DEIS, there have been several project and design modifications, including:

1. The Applicant has applied to the Riverhead Industrial Development Agency (IDA) for select tax exemptions, including real property tax, sales tax and mortgage recording tax.

2. The proposed building program has been modified to eliminate the retail component. The initial site plan included an assumed retail space limited to 10 percent for each tenant as well as wholesale business, both of which are no longer part of the proposed action.

3. The proposed action includes the construction of a sewage treatment plant (STP) that would be designed to treat 20,000 gallons per day (gpd) of sanitary waste (see Section 1.2.4 and Section 2.2.2 of this DEIS). As noted in the Final Scope, "…subsequent to the issuance of a Positive Declaration, the Applicant evaluated the feasibility of constructing an on-site STP as an alternative method of handling on-site sanitary waste. It was determined that an STP can be accommodated on-site with the expected changes in *Appendix A of the Standards For Approval of Plans and Construction for Sewage Disposal Systems for Other Than Single-Family Residences* (i.e., Appendix A on-site STPs will be permitted to accommodate up to 30,000 gpd at reduced setbacks of 10 feet to commercial buildings and commercial property lines) (hereinafter, the "Appendix A changes"). As such, the proposed action is expected to be modified from the current plan of utilizing on-site systems to an on-site STP upon adoption of the Appendix A changes by the Suffolk County Legislature. The DEIS will evaluate environmental impacts associated with constructing an on-site STP in accordance with applicable Suffolk County Health Department regulations and requirements."

4. The Overall Site Plan (Sheet C-3), and Grading and Drainage Plan (Sheets C-8 through C-12), have been modified to relocate the proposed recharge basins from the northern portion of the project site (adjacent to Middle Country Road) to a single basin in the southern portion of the project site. During the preparation of this DEIS, the projected cut and fill material required for the original design would have required a significant volume of fill material to be brought to the project site. Accordingly, the proposed design has been modified such that no fill material would be required.

5. Buildings 4, 6, 7 and 8 have been reduced in size to accommodate the southern recharge basin. The total building area has been reduced by 11,335 SF, thus modifying the total proposed gross floor area from 423,964 SF to 412,629 SF.

1.1.3 Site and Surrounding Land Use and Zoning

The subject property is comprised primarily of former agricultural land with woodland areas. As indicated on the Land Use Map (see Figure 4 in Appendix A of this DEIS), the land uses within a 1,000-foot radius of the project site are comprised of retail, commercial, industrial, residential and agriculture. To the west of the project site is the Tractor Supply Company retail store and the Sky Materials Construction and Demolition Debris processing site (hereinafter "Sky Materials Site") as well as a former mining operation. Along the north side of Middle Country Road, to the west of the project site are agricultural land uses and several commercial land uses. To the east of the project site is an active sod farm, residential uses and the S-Power solar farm on the south side of Middle Country Road. On the north side of Middle Country Road are agricultural and residential land uses. To the south is the Town-owned EPCAL property and a portion of the EPCAL recreational bike path.

The subject property is located within the Industrial C (Ind C) zoning district of the Town of Riverhead (see Figure 5 in Appendix A of this DEIS). As indicated on the Land Use Map (see Figure 4 in Appendix A of this DEIS), the properties to the adjacent east and west are similarly zoned (i.e., Ind C). To the south are lands zoned Light Industry (LI) and the north, on the opposite side of Middle Country Road, are lands

within the Rural Corridor (RLC) District followed by Agricultural Protection Zone (APZ). An analysis of the zoning within 1,000 feet of the subject property includes entirely Ind C to the east of the subject property on the south side of Middle Country Road, and APZ parcels along the north side of Middle Country Road. To the west of the project site, are Calverton Office (CO)-zoned properties (to the west of the adjacent Ind C zoned parcel) on the south side of Middle Country Road and Hamlet Center (HC) along the north side of Middle Country Road, with Residence B-40 (RB40) zoned properties situated to the north thereof.

1.2 Project Design and Layout

1.2.1 Overall Site Layout

The subject property is a 30.25-acre parcel with approximately 530± feet of frontage on Middle Country Road and a lot depth of approximately 2,510 linear feet. The proposed design, as indicated on the Overall Site Plan (see Sheet C-3 in Appendix C of this DEIS), situates a total of eight (8) multi-tenant buildings on the east and west sides of the project site.

Phase 1 of the proposed development would include the first 226,469± SF of the overall 412,629± SF industrial park and would consist of four (4) buildings to be occupied by various tenants as well as a 1,500± SF cafeteria as an ancillary offering intended to serve employees of the various tenants. Phase 2 would include the remaining 186,160± SF and would consist of the remaining four (4) buildings. The proposed building sizes would range from approximately 44,100 SF to 56,672 SF.

The remainder of the project site would generally be capped with asphalt/concrete pavement, pervious pavers in between each set of buildings and landscaped areas along each of the property boundaries. The proposed design would situate an STP in the central portion of the proposed development between the four buildings for development in Phase 1 and the remainder for Phase 2.

A total of 326 surface parking stalls would be provided between the two rows of buildings, with landscaped islands incorporated into the proposed design. All loading spaces for tractor trailers and box trucks would be located along the east or west sides of the property. Specifically, the proposed design includes loading docks sized to accommodate box trucks on the west side of the property for Buildings 1, 3, 5 and 7. The proposed loading docks on the east side of the property would serve Buildings 2, 4, 6 and 8 would be sized for tractor trailers and would each contain retaining walls with fall protection railings. The proposed internal driveways would include wayfinding to guide truck traffic. Two (2) fire lanes with striping and pavement markings would also be provided along the western and eastern portions of the project site adjacent to the proposed side yards landscaped buffers.

To accommodate pedestrians, the proposed development includes a continuous four (4)-foot concrete sidewalk along the project site frontage on Middle Country Road and along the east side of the proposed site access driveway. A six (6)-foot wide crosswalk would also be placed in front of the site access along Middle Country Road. Interior to the project site, the proposed design includes sidewalks along the sides of the proposed buildings facing the center drive aisle. Also, bike racks would be installed along the north side of each building within the central drive aisle.

For security purpose, the proposed design includes a six (6)-foot high security gate with a card reader at the project site's entrance and exit lanes. A six (6)-foot high ornamental fence would also be installed from the security gate to the west and east property lines within the front yard. The proposed ornamental fence would transition into a six (6)-foot high chain-link fence running along the entire extent of the east and west property lines to the south portion of the project site, and along the north side of the recharge basin.

The proposed development also includes landscaping along the frontage and throughout the project site. As shown on the Landscape Plan (Sheet C-19 through C-23) in Appendix C of this DEIS, the planting buffers within the side yards would be between 40 feet and 44 feet. It is noted that the side yard planting buffer east of the access road for STP maintenance vehicles would be 14.2± feet and a 32-foot buffer would be provided near the proposed dumpster locations. The proposed landscaped design includes one (1) three (3)-foot high berm on the northwest portion of the project site with a 130-foot vegetative buffer and one (1) three (3)-foot high berm on the northeast portion of the project site with a minimum 70-foot vegetative buffer. The use of generous landscaping and open space buffers is intended to protect the rural appearance and minimize views of the proposed development from Middle Country Road and the EPCAL walking trail. The proposed recharge basin would be bordered by a six (6)-foot high chain link fence with a 12-foot wide access driveway and a minimum 31.9±-foot vegetative buffer would be planted in the rear yard.

As indicated on the proposed site plan, there would be a total of eight (8) dumpster enclosures placed throughout the project site for tenant use. Two (2) enclosures would be located on the northern portion of the subject property, north of Buildings 1 and 2 and the remaining six (6) enclosures would be located between Buildings 1 and 3, between Buildings 2 and 4, between Buildings 3 and 5, between Buildings 4 and 6, between Buildings 5 and 7, and between Buildings 6 and 8. Bins for recycling and cardboard would also be included within the dumpster enclosures. Each dumpster enclosure would be screened by a six (6)-foot-high wooden stockade fence.

Upon implementation of the proposed action, as provided by the project engineer, the proposed action would modify the land coverages as set forth in Table 1 below.

Table 1 – Existing and Proposed Site Coverages

Land Coverage Type	**Existing (acres)**	**Proposed (acres)**
Woodland/Forested	13.83± acres	0±
Meadow/ Brushlands (Former Agricultural Land)	16.42± acres	0±
Roads, Buildings and Pavement	0*	21.50± acres
Lawn and Landscape	0	7.79± acres
Pervious Pavers	0	0.96± acre
Total Site Area	30.25± acres	30.25± acres
*Remnants of former buildings in the form of foundations and isolated walls exist on the subject property.		

As indicated above, the proposed action would remove all woodland and former agricultural land, the area of impervious surfaces would increase to 21.50± acres and the area of lawn and landscaping would

increase to 7.79± acres. Pervious pavers have also been incorporated into the design over an area of 0.96± acre.

1.2.2 Grading and Drainage

Grading

The proposed action includes regrading of the project site in its entirety for building foundations, internal driveways and parking areas, utilities, and drainage infrastructure (inclusive of the recharge basin, drywells, catch basins and pervious pavers) (see the proposed Grading & Drainage Plans [see Sheets C-8 through C-12 in Appendix C of this DEIS]). As the subject property includes varied topography (i.e., from 83.7± feet above mean sea level [amsl] at the northwest corner to 66.7± feet amsl in the southwest portion), the proposed action would result in the modifications of slopes to achieve a level building area.

As indicated on the Construction Phasing Plan (see Sheet C-29 in Appendix C of this DEIS) Phase 1 will consist of two segments - Phase 1A and Phase 1B. Phase 1A includes 10.75± acres of land area and once stabilized, the work within Phase 1B would commence over 12.64± acres. Phase 2 includes the remaining 6.86± acres. See Table 2 below for the types of material and associated volume of material (in cubic yards [CY]) to be removed during construction of the proposed development, as provided by the project engineer.

Table 2 – Proposed Grading Program

Type of Material to Be Removed	Quantity of Removal During Phase 1A	Quantity of Removal During Phase 1B	Quantity of Removal During Phase 2	Total Amount of Material to Be Removed
Trees and Shrubs	600± CY	699± CY	256± CY	1,555± CY
Topsoil	38,340± CY	0 CY	6,172± CY	44,512± CY
Excess Cut	0 CY	0 CY	6,279± CY	6,279± CY

As shown in Table 2, approximately 1,555 CY of trees and shrubs would be cleared from the entire project site. It is noted that during construction, approximately 4,298 CY of topsoil would be reused within the Phase 1 and Phase 2 proposed landscaped areas. However, approximately 44,512 CY of topsoil would be removed from the project site. The overall grading program would result in an excess cut of approximately 6,279 CY of material. The maximum depths of cut and fill would be 20.2± feet and 14.8± feet, respectively. It is noted that the material cut in Phase 1 would be deposited and used for Phase 2, so removal of material would occur entirely during Phase 2. All excess soils would be transported to permitted off-site facilities in accordance with the New York State Department of Environmental Conservation (NYSDEC) Part 360.

Drainage

As indicated on the proposed Grading & Drainage Plans (see Sheets C-8 through C-12) in Appendix C of this DEIS, all stormwater generated on-site would be accommodated and recharged via an integrated

system of a recharge basin, drywells, catch basins and pervious pavers. The proposed drainage plan has been designed to accommodate a nine-inch storm event which exceeds the 100-year storm event (8.77" rainfall over a 24-hour period) requirement pursuant to the Town of Riverhead and the New York State Stormwater Management Design Manual requirements.

As noted on the Overall Grading and Drainage Plan (see Sheet C-8 in Appendix C of this DEIS), based on the Hydrocad analysis utilizing an infiltration rate of 18.6 inches/hour (provided by the Town of Riverhead Engineering Department) and 100-year storm event (nine-inch rainfall over a 24-hour period), the required volume for the entire project site is 299,631 CF. The proposed design, including one proposed recharge basin and 82 drywells, provides for a capture volume of 316,526 CF using an infiltration rate of 18.6 inches/hour. Accordingly, the proposed drainage plan would comply with the local and State requirements.

1.2.3 Access, Road System and Parking

Access is proposed via one (1) full-movement driveway along Middle Country Road, with signalization of the project site driveway. It is noted that consultations have been undertaken with the New York State Department of Transportation (NYSDOT) regarding the preferred signalization and preliminary acceptance of the proposed plan has been accepted. Accordingly, an application for signalization would be filed during this environmental review process. It is further noted that, if the proposed signal is not accepted, a roadway striping modification to accommodate a two-way left-turn lane on Middle Country Road along the project site frontage would be implemented. Both access proposals are evaluated in the Traffic Impact Study (see Appendix L of this DEIS) and summarized in Section 3.2 of this DEIS.

As noted earlier, upon access to the project site, a security gate with a card reader would control entry and exit from the project site. The buildings to be constructed on the westerly side of the project site would each provide space for 10 tenants and the buildings to be constructed on the easterly side of the property would each provide space for five (5) to six (6) tenants. The proposed site plan includes a total of 101 loading spaces to be located along the building perimeter (i.e., between the building and property line) with an approximately 40 to 44-foot landscape buffer along the eastern and western property lines. All passenger vehicle parking would be situated in the central portion of the property, between the two rows of buildings, with access via a 26±-foot width, two-way drive aisle.

Pursuant to the Town of Riverhead Parking Standards in the Town Code (§301 Attachment 1), the required parking is based on land use and gross floor area (GFA), as follows:

- Industrial/indoor manufacturing - One parking stall per 400 SF of GFA
- Warehouse - One parking stall per 1,000 SF up to 5,000 SF of GFA, plus one additional space for each additional 10,000 SF of GFA.

As indicated on the Parking Calculations table included on the Overall Site Plan (see Sheet C-3 in Appendix C of this DEIS), based on the above standards and proposed building sizes (see Table 3), the proposed development requires 324 parking stalls. The proposed site plan includes 326 total parking spaces, inclusive of 16 ADA accessible parking spaces. Each building would provide two (2) ADA accessible parking spaces in the central drive aisle towards the center of each building.

Table 3 – Summary of Required and Provided Parking

Building	Required Parking	Provided Parking
Building 1 (56,000 SF)	43.7	184 (Phase 1) (includes 8 accessible spaces)
Building 2 (56,672 SF)	44.2	
Building 3 (56,000 SF)	43.7	
Building 4 (56,297 SF)	43.9	
Building 5 (49,000 SF)	38.8	142 (Phase 2) (includes 8 accessible spaces)
Building 6 (48,510 SF)	38.4	
Building 7 (44,100 SF)	35.4	
Building 8 (44,550 SF)	35.6	
Total	323.7 (324)	326 (includes 16 accessible spaces)

Pursuant to Section 301-232.A of the Town Code, the number of required loading spaces is based on GFA. Relevant to the proposed action, where all buildings range between 44,100 SF and 56,672 SF, the loading space requirement is three (3) spaces per 40,001 to 100,000 SF of GFA. As such, a total of 24 loading spaces are required. The proposed site plan includes 101 total loading spaces for the multi-tenant buildings, thus providing sufficient loading spaces for both tractor-trailers and box trucks.

All parking stalls would be 10 feet wide by 20 feet deep in accordance with the Town ordinance (§301-231.E.2) and industry standards. Loading spaces would range in size with 78 spaces proposed at 12 feet wide by 34 feet long; two (2) spaces at 12 feet wide by 20 feet long; and the remaining 21 spaces at 13 feet wide by 55 feet long in accordance with the Town ordinance (§301-232.B) and industry standards.

1.2.4 Sanitary Wastewater Disposal and Water Supply

Sanitary Wastewater Disposal

Article 6 of the Suffolk County Sanitary Code (SCSC) regulates sewage disposal for realty subdivisions, development, and other construction projects for the protection of water resources. To limit nitrogen loading in various groundwater management zones, Article 6 sets forth population density equivalents. The subject property is located within Groundwater Management Zone III, which is characterized as a deep recharge zone, which limits the maximum permitted sanitary discharge for the use of individual on-site sanitary systems to 300 gpd per acre (43,560 SF) or approximately 9,076 gpd for the 30.25±-acre project site.

Based on Suffolk County Department of Health Services (SCDHS) design flow factors for General Industrial use (0.04 gpd/SF), the projected sanitary discharge for the overall development (412,629 SF), is 16,506 gpd. As the projected sanitary flow exceeds the maximum permissible flow for individual on-site sanitary systems, the proposed action includes the construction of an STP. To allow for flexibility with future tenants, the proposed STP would be designed to accommodate a flow of 20,000 gpd.

The proposed STP would be a modified sub-surface treatment system and has been sited to comply with *Appendix A of the Standards For Approval of Plans and Construction for Sewage Disposal Systems for Other*

Than Single-Family Residences (see STP Report in Appendix G of this DEIS). Relevant to the proposed action are the changes implemented by the Suffolk County Legislature in October 2020 which permits on-site STPs to accommodate up to 30,000 gpd at reduced setbacks of 10 feet to commercial buildings and commercial property lines. As indicated on the Overall Site Plan (see Sheet C-3 in Appendix C of this DEIS), the proposed STP would be situated at the central portion of the proposed development. The proposed STP would be located 10 feet from Building 4 and Building 6, and 185 feet from the eastern property line, which is a parcel currently used as a sod farm and zoned Ind C.

The treated effluent would discharge into an effluent leaching pool groundwater disposal system. The effluent disposal system would consist of seven, 10-foot diameter-leaching pools with an approximate effective depth of 18.5 feet. Adequate space has been allocated for the 100 percent expansion of the leaching pools in accordance with SCDHS requirements. Additionally, in accordance with SCDHS and NYSDEC regulations, groundwater monitoring wells would be installed both upstream and downstream of the effluent disposal system to monitor groundwater impacts as part of the SPDES permit obtained for the STP. Further discussion of the proposed STP is included in Section 2.2.2 of this DEIS.

Water Supply

Due to the depth of the subject property (approximately 2,510 feet), the proposed development includes an extension of the service area of the RWD to service the subject property. The total projected potable water usage, based on SCDHS design flow factors, for Phase 1 and Phase 2 is approximately 16,506 gpd. However, as indicated above, the proposed STP would be sized for 20,000 gpd, and thus, total potable water demand for the proposed development is considered to be 20,000 gpd.

Irrigation supply is also expected for on-site landscaping. Based on information provided by the project engineer, the projected irrigation usage is approximately 1,881 gpd when averaged over the entire year based upon a volume of one-half inch of watering per week for the 2± acres of landscaping. During the irrigation period (April to October), the projected irrigation usage would be 3,771± gpd for 26 weeks.

It is proposed that all water for domestic use be supplied by the RWD and if required, an irrigation well would be installed to supply irrigation needs on the project site. An application has been submitted to the RWD for such extension and the Applicant's project team is actively coordinating with the consultants to the RWD. The original application submitted to the RWD for such extension included a quantity of water demand of 18,857± gpd (inclusive of potable and irrigation). As the project has been modified to incorporate an STP, a subsequent request for water availability was filed with the RWD by PWGC on December 17, 2020 (see Appendix I of this DEIS) for an increase in water quantity to 20,000 gpd for domestic water supply. A response is pending; however, consultations have been ongoing with the RWD and it is expected that water will be available to the proposed project upon commencement of construction.

It is noted that PWGC prepared a Water Supply Source Study, dated April 2021, to provide information on the existing hydrogeologic conditions of the project site and surrounding area and to assess the viable alternatives that would ensure a potable water supply to the proposed development (see Appendix H of this DEIS).

1.2.5 Site Landscaping and Lighting

The proposed landscape design includes a minimum front yard landscape buffer of 70± feet along the northeast portion and 130± feet along the northwest portion of the subject property, which far exceeds the minimum 20-foot requirement (§301-124A.4.B). The proposed landscaped design within the front yard includes two (2), three (3)-foot high berms on the northwest and northeast portions of the project site. The planting buffers within the side yards are proposed to be between 40 feet and 44 feet, which far exceeds the 10-foot buffer requirement (§301-124A.4.B). It is noted that the side yard planting buffer east of the access road for STP maintenance vehicles would be 14.2± feet and a 32-foot buffer would be provided near the proposed dumpster locations. The rear yard would include a minimum of 31.9± feet of planting buffers, exceeding the 10-foot buffer requirement (§301-124A.4.B). Further, approximately 23.19 percent of the property would be contiguous landscaping, where the minimum requirement of contiguous open space, pursuant to §301-123.B, is 20 percent. As such, the extensive front and rear yard landscaping and buffers would effectively screen the development from the corridor traffic along NYS Route 25 and the EPCAL walking trail, respectively, while the minimum required landscaping along the side yards would screen the development from the adjacent land uses.

The proposed landscape plan would include a variety of trees, including evergreen trees (i.e., Eastern Red Cedar *[Juniperus virginiana],* White Spruce *[Picea glauca],* Eastern White Pine *[Pinus strobus],* and Emerald Arborvitae *[Thuja occidentals 'emerald'])*, ornamental trees White Flowering Dogwood *(Cornus florida 'white')*, and shade trees (i.e., Red Maple *[Acer rubrum],* Skyline Thornless Honey Locust *[Gleditsia triacanthos inermis 'skycole' TM]*, and Black Gum *[Nyssa sylvatica 'wildfire'])*. The proposed landscaping also includes deciduous shrubs (i.e., Summer Wine Ninebark *[Physocarpus opulifolius 'summer wine']* and Arrowwood Viburnum *[Viburnum dentatum 'arrowwood']*) and evergreen shrubs (i.e., Compact Inkberry *[Ilex glabra 'compacta']* and Blue Chip Juniper *[Juniperus horizontalis 'blue chip']*). The proposed landscaping includes ornamental grasses specifically Pennsylvania Sedge *(Carex pensylvanica)*, Switch Grass *(Panicum virgatum)*, and Prairie Dropseed *(Sporobolus heterolepis*) as well as perennials including Purple Coneflower *(Echinacea purpurea)* and Blue Flag *(Iris versicolor).* As indicated in the proposed Landscape Plans (Sheets C-19 through C-23), the proposed action includes generous landscaping along the front, side and rear yards, as well as contiguous open space in accordance §301-123.B of the Town Code.

As indicated on the proposed Overall Lighting Plan (see Sheets C-24 through C-28 in Appendix C of this DEIS), the proposed buildings would include exterior site lighting and wall-mounted fixtures. Based on the proposed design, the proposed exterior site lighting would consist of pole-mounted light fixtures at 16± feet in height and equipped with housing shields to direct light downward. The proposed wall-mounted fixtures would be mounted at 16± feet above grade level and equipped with housing shields. All lighting is proposed to be LED and dark sky compliant in accordance with Town Code regulations (§301-259).

1.2.6 Site Utilities

As the subject property is currently undeveloped and vacant land, the proposed development would require new connections for natural gas and electrical supply from the utility providers. Consultations have been undertaken with National Grid and PSEG Long Island through written correspondence dated May 20, 2020 (PSEG Long Island correspondence) and February 9, 2021 (National Grid and PSEG Long

Island correspondence) from Emtec (see Appendix O of this DEIS). Within said correspondence, the projected gas and electrical demands for the proposed action were provided: estimated gas load of 955,000 British thermal units (BTUs) and estimated electricity load of 4,573 kilo-volt-amperes (kVA). National Grid and PSEG Long Island have confirmed adequate capacity to service the proposed development (see Appendix O of this DEIS). It is noted that the proposed development has been designed to accommodate a 3.245 MW rooftop solar array capable of producing 2.4 MW of energy. Further discussion and analysis of the proposed utility connections and solar program are included in Section 3.6 of this DEIS.

1.2.7 Solid Waste Management

Solid waste would be generated by the proposed development. Based on calculations provided by the project engineer, based on a factor of 5.0 lbs./1,000 SF/day, the proposed 412,629± SF development would generate approximately 12,379 lbs./week based on a six-day per week operation, or an average of 24.7 tons per month. All solid waste would be handled by one licensed private carter for proper handling and disposal, including recycling.

As indicated on the proposed site plan, there would be a total of eight (8) dumpster enclosures throughout the project site. Two (2) enclosures would be located on the northern portion of the subject property, north of Buildings 1 and 2. These enclosures would each have two (2) individual dumpsters, each sized for six to eight CY of solid waste material. Each of the remaining six (6) enclosures would include four (4) individual dumpsters each, sized to accommodate six to eight CY of solid waste material. These six (6) enclosures would be located between Building 1 and Building 3, between Building 2 and Building 4, between Building 3 and Building 5, between Buildings 4 and 6, between Building 5 and Building 7, and between Building 6 and Building 8. Overall, the eight (8) enclosures with 28 dumpsters would accommodate between 168 and 224 CY of material on-site. Bins for recycling and cardboard would be included within the dumpster enclosures. Each of the eight (8) dumpster enclosures would be placed upon concrete pads and would be screened by a six (6)-foot high wooden stockade fence. It is expected that all solid waste would be picked up from the development twice per week or as necessary, to ensure a properly maintained site.

1.3 Project Objectives, Needs and Benefits

1.3.1 Objectives of the Project Sponsor

It is the objective of the project sponsor to acquire and develop the subject property in accordance with the prevailing zoning (i.e., Ind C) to meet the demand for light industrial space in the Town of Riverhead. As indicated on the Overall Site Plan (Sheet C-3) in Appendix C of this DEIS, the proposed "Calverton Industrial Park" (CIP) would include a building program consisting of 75 percent light industrial warehouse use and 25 percent indoor manufacturing use. A cafeteria/commissary for all tenants is also proposed in Building 2, which has been incorporated into the design for the benefit of the tenants, which allows for workers to have access to food and beverage on-site, thus avoiding the need to leave the project site for meals.

The proposed CIP would be designed to meet the demands of smaller users (i.e., those seeking spaces approximately 5,000 SF-to-50,000 SF in area) with adequate loading space and docks, high ceilings (for warehousing and distribution), and larger drive-in doors. As noted on the Architectural Building Plans and Elevations (Sheet A2.1 through Sheet A2.3 in Appendix C of this DEIS) prepared by the project architect, BLD Architecture, the proposed ceiling heights would be 29± feet. The proposed overhead doors are proposed to be 12 feet wide by 14 feet high.

The proposed development is planned for construction in two phases. As indicated on the Construction Phasing Plan (Sheet C-29 in Appendix C of this DEIS), Phase 1 of the proposed development would include 226,469± SF of the overall 412,629± SF industrial park and would consist of four (4) buildings to be occupied by various tenants as well as a 1,500 SF cafeteria as an ancillary offering intended to serve employees of the various tenants. Phase 2 would include remaining 186,160± SF and would consist of the remaining four (4) buildings.

1.3.2 Project Needs and Benefits

Market Demand

To evaluate the demand for the proposed project, a preliminary industrial submarket report was prepared (see Industrial Submarket Report dated December 2020 in Appendix D of this DEIS) followed by a comprehensive market analysis (see Fundamental Market Study dated February 2021 in Appendix D of this DEIS) both prepared by BBG, Inc. (see Appendix D of this DEIS). As indicated in the Industrial Submarket Report, eastern Suffolk County has approximately 6.4 million SF of industrial space. However, the vacancy rate of industrial properties is 5.4 percent which has decreased in the past four quarters (one year) (see page 2 of the Industrial Submarket Report in Appendix D of this DEIS).

The Fundamental Market Study (FMS) provides a fundamental analysis of the proposed development program at the subject property as well as a comparative analysis of the proposed development program to other similar industrial properties in eastern Suffolk County. Based on regional and economic data and trends, the FMS reviewed the macro-level market for the Long Island Metro Region, which consists of four micro-level submarket clusters: Nassau County, Western Suffolk County, Central Suffolk County and Eastern Suffolk County (see page 26 of the FMS in Appendix D of this DEIS). Market analysis data specific to the proposed development program (i.e., industrial warehouse and distribution) was then analyzed at the macro-level market and the micro-level submarket clusters. As the proposed development falls under the Eastern Suffolk County submarket, the FMS provided an in-depth analysis of this submarket, including demand for industrial (warehouse and distribution) buildings based on employment growth in Eastern Suffolk County, new construction of warehouse and distribution space by specific submarkets, location ratings, and current actual occupied space.

The Eastern Suffolk County submarket was broken down into four sub quadrants (i.e., Riverhead, Westhampton, East Hampton/Montauk, and the North Fork). The FMS also compared the proposed development program at the subject property to other similar industrial properties within the four sub quadrants to determine the best property for the proposed development where demand for industrial warehouse and distribution can be met. It is noted that the Hauppauge Industrial Park was not analyzed in the comparative analysis to the subject property as it falls within the Western Suffolk County submarket.

The proposed development program at the subject property was analyzed based on the following criteria and a property/productivity rating score was applied to the project site: (1) Micro-Location (proximity to major-throughfare; access onto site for trucks; access and visibility to customers; proximity to complementary uses); (2) Site Analysis (parking for cars and trucks; circulator on-site for trucks; topography; land-to-building ratio); and (3) Proposed Building Improvements (construction quality; exterior appearance; size of warehouse area; size of office area; ceiling heights; security features; flexibility of design for multitenant; number/quality of loading facilities). Overall, based on the FMS, the subject property is rated 44 percent above average in the Eastern Suffolk County market. (see "Proposed Industrial (Warehouse and Distribution) Building Property Rating" table on page 25 of the FMS).

The FMS noted that, overall, the subject property's location for the proposed development program in Riverhead is superior to the other three sub quadrants primarily due to the following factors (page 29 of FMS):

- *Riverhead is the primary location of workforce housing in the area. As traffic is light and the overall market is the Eastern Suffolk Submarket, proximity to employee housing is significant.*
- *Riverhead consists of the highest concentration of support facilities, as most of the submarket consists of upper-income residential development with a large contingent of vacation homes.*
- *The subject's central location and proximity to I-495 allows for good access to vendors and customers alike.*
- *This trend is expected to continue as development restrictions in the other nodes tend to be much more stringent.*
- *The subject area has the most land ready for new development, the lowest land cost, and the lowest taxes versus the other micro market nodes.*
- *Riverhead has experienced the strongest net absorption in 2020 versus the other nodes.*

As shown in the table on page 30 of the FMS ("Industrial Immediate Micro Market Node Location Analysis Chart") each of the four sub quadrants were rated across a total of 13 criteria and a scoring number was applied to each to determine the best location for the proposed development: (1) travel time to employee housing; (2) travel time to passenger airport; (3) support facilities in area (hotels, restaurants, and multitenant offices); (4) proximity to air freight; (5) proximity to rail; (6) proximity and access to interstate highways; (7) current travel time to customers; (8) current travel time to vendors; (9) expected travel time to customers in ten years; (10) expected travel time to vendors in ten years; (11) area with most land ready for new buildings; (12) land cost; and (13) taxation cost. Overall, Riverhead was ranked the highest at 39 percent for the best location for the proposed development in Eastern Suffolk County, followed by Westhampton at 30 percent, East Hampton at 16 percent, and North Fork at 15 percent.

The FMS also evaluated 19 properties in the Eastern Suffolk County submarket that were considered "competitors" to the proposed development. The properties included: Center Moriches (one property analyzed), Hampton Bays (one property analyzed); Riverhead (six properties analyzed), Shirley (one property analyzed), Southampton (five properties analyzed), Eastport (one property analyzed), Wainscott (one property analyzed), and Westhampton Beach (three properties analyzed). Refer to table "Eastern Suffolk Submarket Competitive Warehouse/Distribution Facilities by Locale" on pages 60 and

61 of the FMS for the list of properties analyzed. Overall, as indicated on the Summary of Competitive Set Ratings table on page 81 of the FMS, the proposed development would be ranked first based on the three (3) criteria set forth above to obtain a property/productivity rating score.

As noted in the FMS, the following conclusions have been made:

- *Upon completion, the improvements are expected to be excellent quality properties and effectively the only facility of its kind in Eastern Suffolk County with 30* [foot] *ceiling heights and modern loading facilities*.
- *There is sufficient demand for the subject property to justify new construction.*
- *In addition to demonstrating modern features that are very much in demand,* [the subject property] *has a good location proximate the Long Island Expressway, bus routes to workforce housing in Riverhead, and is located in an Opportunity Zone.*
- *Based upon current market conditions and projections regarding employment and demand for warehouse/distribution space as of January 5, 2020, there is sufficient demand within the influencing market to justify demand for the proposed improvements.*

Overall, based on the FMS, the proposed development serves to meet the unmet demand for industrial warehouse and distribution in eastern Long Island.

Job Creation

Construction Jobs

Per the Applicant, the proposed development would generate approximately 50 to 60 construction jobs each year of development (see Appendix D of this DEIS).

Permanent Jobs

Upon implementation of the proposed project, the subject property would be redeveloped with an industrial use that would result in the creation of permanent jobs. The FMS provided a projection of 900 SF of industrial space per employee as a reasonable ratio for the proposed industrial use (see page 43 of the FMS provided in Appendix D of this DEIS). This projection was based on factors provided by surveys from the NAIOP Research Foundation, Colliers International, the Urban Land Institute, and anecdotal sources. As such, utilizing this factor of 900 SF of industrial space per employee, the proposed development, with 412,629 SF of gross floor area, would create approximately 459 permanent jobs at the subject property.

Increase in Tax Revenue

The projected post-development tax revenues from the proposed action were considered as part of this DEIS. According to the Real Estate Property Tax Projection Report prepared by Cronin & Cronin Law Firm, PLLC ("Tax Projections") (see Appendix D of this DEIS), the existing property tax generated from the currently vacant site is $23,552.78. Based on a projected tax rate of 217.156/1000, the

redevelopment of the project site is estimated to increase tax generation to approximately $1,130,000 to $1,300,000, with the probable amount of $1,215,000.

As noted in Section 1.1.2 of this DEIS, the proposed project may be eligible for financing through either the Town of Riverhead or Suffolk County Industrial Development Agencies (IDAs). The purpose of these programs is to promote economic development in the County and Town, with IDA agreements generally covering a 10 to 15-year term. If the proposed project is eligible for an IDA Agreement, the Town of Riverhead IDA or Suffolk County IDA will negotiate the terms of the agreement with the property owner. There are several different forms that the Payment In Lieu of Taxes (PILOT) can take and three scenarios were developed (10-Year Pilot with 100% abatement for the first year, 10-Year Pilot with 50% abatement for the first year, and 15-Year Pilot with 100% abatement for Years 1 through 6), based on an estimated full tax amount of $1.215M. In all three scenarios, it is noted that the exemptions do not apply to Special Districts (i.e., Riverhead Ambulance District, Riverhead Water District, Riverhead Sewer District, etc.), and thus, the property is fully taxable for these districts. As it is unknown if the project will be eligible for an IDA agreement, the three possible programs are included in the Tax Projections in Appendix D of this DEIS. Overall, the proposed development would result in an increase in tax revenues while also contributing to the economic development goals of the Town and the Opportunity Zone within which this project site is situated.

Consistency with the Town of Riverhead Comprehensive Plan, 2003

Pursuant to the Proposed Land Use Plan included in the Town of Riverhead Comprehensive Plan dated November 2003 (Town Comprehensive Plan), the subject property is located within an area planned for Industrial/Recreation (IR) Use (see Figure 3 in Appendix A of this DEIS). As indicated in Table 2-14 of the Town Comprehensive Plan, the purpose of the IR area is to "*allow a mix of light industrial and commercial recreation uses in the area between Enterprise Park and the terminus of the Long Island Expressway*." As the proposed action would convert the subject property to the permitted light industrial use (i.e., warehouse and indoor manufacturing), it is consistent with the intended purpose and the preferred land use and zoning, as set forth in the Town Comprehensive Plan.

Chapter 7 of the Town Comprehensive Plan sets forth the economic development goals with the following vision statement, as it relates to the proposed action, "…*Riverhead should continue to pursue a diverse economic base by promoting office and industrial development, agriculture, retail development, and entrepreneurial and small-business activity in appropriate locations. Economic development pursuits must be balanced with the conservation policies expressed in the other sections of this plan, particularly with regard to historic, scenic, and natural resources.*" (page 7-1). Relevant to the proposed action, Section 7.4 of the Town Comprehensive Plan addressed the demand for office and industry in the Town. Of importance are the noted reasons for the increased demand:

- *First, as land becomes more scarce and expensive in Towns to the west, more businesses will look to Riverhead for space.*
- *Second, although Riverhead is about 15 to 20 miles east of the more developed areas of the County, the Central Pine Barrens region restricts development for much of that stretch. This means that despite Riverhead's distance from existing business centers, it is the next major location available for significant office and industrial growth.*

- *Third, Riverhead has a great deal of developable land available for office and industrial development, particularly in Enterprise Park and adjacent areas.*
- *Fourth, the Long Island Expressway (LIE) provides excellent accessibility to the Town's major office and industrial locations.*

Pursuant to the Town Comprehensive Plan, "*Riverhead's land use regulations should be flexible enough to accommodate both office and industrial development, allowing the market to decide how much of each will ultimately be built*" (page 7-16). As indicated in the FMS (see Appendix D of this DEIS) and described above, the proposed development demonstrates excellent functional utility given the limited supply of warehouse distribution facilities with highly efficient ceiling heights. The proposed units would offer adequate loading space and docks, high ceilings, and a mix of roll-up and dock-high doors which would allow for local smaller businesses such as landscapers, interior decorators, and craftsmen. The proposed on-site cafeteria/commissary would support businesses by allowing convenient access of food and beverage to its employees without the need to leave the project site.

The proposed development serves to meet the unmet demand for industrial warehouse and distribution in eastern Long Island. As indicated above, in this section of the DEIS, construction of the proposed development is expected to generate 50 to 60 construction jobs per year and upon implementation, the proposed development is projected to generate approximately 459 permanent jobs. Finally, upon implementation of the proposed action, an increase in tax revenues are expected. Overall, the proposed development is consistent with the stated land use and goals for increased industrial development, as set forth in the Town Comprehensive Plan.

Consistent with Goals for Federal Opportunity Zones

The subject property is located in the federal "Opportunity Zone (Long Island Region)" (see Figure 6 in Appendix A of this DEIS) community development program (hereinafter referred to as the "Opportunity Zone"). Opportunity Zones were created under the Tax Cuts and Jobs Act of 2017 (Public Law 115-97) and are a tool used to stimulate economic development and job creation, by incentivizing long-term investments in low-income neighborhoods. Opportunity Zones are defined by individual census tract as economically distressed communities, nominated by each state's governor, and certified by the United States Secretary of the Treasury.[1] Opportunity Zones have the intent and purpose of encouraging private investment in low-income urban and rural communities in exchange for incentives through federal funding and tax deferments. As indicated above, the proposed development is projected to generate approximately 50 to 60 construction jobs and 459 permanent jobs. Also, the proposed development would generate a significant increase in tax revenues to the Town and its taxing jurisdictions. As indicated above, based on a projected tax rate of 217.156/1000, the redevelopment of the project site is estimated to increase tax generation to approximately $1,130,000 to $1,300,000, with the probable amount of $1,215,000.

[1] United States Department of Housing and Urban Development. *Opportunity Zones.* Retrieved from: https://opportunityzones.hud.gov/. Accessed January 2021.

Renewable Energy Project

As indicated in the project summary prepared by Summit Ridge Energy ("SRE Project Summary") (see Appendix Q of this DEIS), approximately 75 percent of the roof area of the proposed eight (8) buildings would be equipped with solar panels. The proposed development has been designed to accommodate a 3.245 MW rooftop solar array capable of producing 2.4 MW of energy. Electricity from this solar array would be sold via Long Island's community solar program which "refers to local solar facilities where the public (Riverhead constituents) and/or the municipality becoming subscribers receiving credits resulting in a monetary discount on their electricity bills. Hence there is a Direct Community Benefit. The energy is still delivered through their regular electric provider as the power produced from the community solar array is fed directly back to the electric grid. As a result, the grid is supplied with clean, renewable energy, while subscribers get credits on their electric bills." The project would produce approximately 4,100,000 kWh of renewable energy each year over a 20-year period. This is an annual equivalent of removing 625 passenger vehicles from the road or removing 490 homes entirely from the electrical grid.

1.4 Construction and Operations

1.4.1 Construction

The proposed development would be constructed in two phases over a total duration of 42± months. As indicated on the Construction Phasing Plan (see Sheet C-29 in Appendix C of this DEIS), Phase 1A is estimated at six (6) months, Phase 1B is estimated at 18 months, and Phase 2 is also estimated at 18 months. The proposed commencement date is December 2021 in order to begin the clearing of vegetation within the permitted window of December 1 to February 28 for protection of the northern long-eared bat. Phase 1A is projected to end on or about May 2022 when Phase 1B would commence. With a projected 18 months for completion of Phase 1B, the entirety of Phase 1 is expected to be completed on or about August 2023. Full occupancy of the first four buildings is projected for 2023. Phase 2 is proposed to commence in January 2024 in order to clear vegetated areas within the aforementioned window, and with a projected 18 months for the entire phase, construction would be completed on or about June 2025. Full occupancy for the Phase 2 buildings is projected in 2025.

In accordance with §275-6.B.1.d. of the Town Code, the construction phasing has been addressed by the project engineer (see Sheet C-29 of the Site Development Plans in Appendix C of this DEIS). It is acknowledged that Chapter 275 does not permit the disturbance of greater than 5.0 acres at any one time without approval from the NYSDEC. Due to the size of the project site, and with the proposed erosion and sediment controls in place, the Applicant sought approval from the NYSDEC and by electronic mail on July 15, 2020, the NYSDEC authorized the phasing plan as proposed (see Appendix E of this DEIS).

Phase 1 would include the first 226,469 SF of the overall 412,629 SF industrial park and would consist of four (4) buildings to be occupied by various tenants as well as a 1,500 SF cafeteria as an ancillary offering intended to serve employees of the various tenants. Phase 2 would include remaining 186,160 SF and would consist of the remaining four (4) buildings. Overall, as indicated on the Construction Phasing Plan (see Sheet C-29 in Appendix C of this DEIS) Phase 1 would be separated into two sections

(Phase 1A and Phase 1B). Phase 1A would disturb 10.75± acres and once stabilized, the work within Phase 1B would disturb 12.64± acres. Phase 2 would disturb the remaining 6.86± acres.

As indicated on the Construction Phasing Plan (see Sheet C-29 in Appendix C of this DEIS), Phase 1 of the proposed action (i.e., Phase 1A and Phase 1B) would happen over a period of approximately 24± months. Phase 1A would include the installation of erosion control measures, installation of the stormwater infrastructure on the southern half of the project site (inclusive of the recharge basin) and associated improvements. Phase 1B would include the installation and/or relocation of erosion control measures, installation of temporary underground utilities for Buildings 1 through Buildings 4, installation of the stormwater infrastructure for Phase 1B, and construction of the proposed STP, sanitary sewer conveyance systems and grease trap for the proposed commissary. Buildings 1 through Buildings 4 would be constructed along with the associated parking stalls, loading docks, retaining walls, curbing, fencing, concrete sidewalks, and asphalt paving within the overall footprint of Phase 1. The entrance security gates and the site area lighting surrounding Phase 1 would be installed. Landscape plantings and hydroseeding of lawn areas would be installed within and surrounding Phase 1 of the proposed development. Phase 2 of the proposed action would happen over a period of approximately 18± months. Phase 2 would include the installation and/or relocation of erosion control measures, installation of the final underground utilities for all eight (8) buildings, installation of the stormwater infrastructure for the central drive aisle parking areas within Phase 2, and installation of the sanitary sewer conveyance systems. Buildings 5 through Buildings 8 would be constructed along with the associated parking stalls, loading docks, retaining walls, curbing, fencing, concrete sidewalks, and asphalt paving within the overall footprint of Phase 2. The site area lighting surrounding Phase 2 would be installed. Landscape plantings and hydroseeding of lawn areas would be installed within and surrounding Phase 2 of the proposed development. See Section 3.5 of this DEIS for an in-depth description of the construction schedule and the proposed scope of work for Phase 1A, Phase 1B and Phase 2 of the proposed action.

It is recognized that Chapter 251, Article 1 of the Town Code regulates both operational (post-development) noise as well as construction-related activities. Regarding construction-related noise, in accordance with §251-5K., the proposed construction would take place on weekdays within the permitted activity hours (7:00 AM and 5:00 PM) and would be undertaken so as to not exceed an L(10) of 80 dBA for continuous sound and 130 dBA for impulsive sound. In addition to strict controls on the construction schedule, the on-site construction manager would limit the idling of construction-related vehicles and would ensure all vehicles are equipped with mufflers.

The proposed action would be expected to generate construction-related wastes. As provided by the project engineer, based upon a factor of four (4) lbs. per SF of building area and a total proposed building area of 412,629± SF, the projected total waste generation during construction would be 1,650,516± lbs. or 825± tons. All commercial and demolition (C&D) debris would be handled by licensed private carters.

1.4.2 Operations

Upon implementation of the proposed action, the proposed development would function similar to other light industrial developments within the Town of Riverhead. The hours of operation at the subject property are assumed to be limited to weekdays and Saturdays from 8:00 AM to 6:00 PM, for limited tenants.

1.5 Required Permits and Approvals

The proposed action is subject to the following permits and approvals:

Table 4 – Required Permits and Approvals

Agency	Permit/Approval
Town of Riverhead Planning Board	Site Plan Review and Approval
Town of Riverhead Town Board	Riverhead Water District Extension 37R – Calverton
Town of Riverhead Board of Zoning Appeals	Area Variance (Impervious Lot Coverage)
Town of Riverhead Building Department	Building Permits
Town of Riverhead Fire Marshal	Fire Marshal Construction Permits and Fire Alarm/Suppression Systems Permits
Town of Riverhead Water Department	Water Connection
Riverhead Industrial Development Agency	Tax Exemptions (Sales tax, Mortgaging recording, and Real Property tax)
Suffolk County Department of Health Services	Article 6 Permit and Article 12 Permit
Suffolk County Planning Commission	239-m Referral
Suffolk County Department of Public Works	Referral; Sewer Agency Approval
New York State Department of Transportation	Highway Work Permit
New York State Department of Environmental Conservation	State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharge during Construction Activities; and Water Withdrawal Permit Program (for On-site Water Supply Wells)
PSEG Long Island/National Grid	Electric and Natural Gas service connections

2.0 NATURAL ENVIRONMENTAL RESOURCES

2.1 Soils and Topography

2.1.1 Existing Conditions

Soils

The Soil Survey of Suffolk County, New York (*Soil Survey*) was published by the United States Department of Agriculture (USDA) Soil Conservation Service in 1975 to identify soil types and assist land users with potential soil limitations. Soils that have similar profiles are grouped into a soil "series" and the series is then broken down into "mapping units," based upon slope, texture, and other characteristics. The USDA Natural Resources Conservation Service (NRCS) now maintains the Web Soil Survey for Suffolk County, New York (USDA WSS).

According to the USDA WSS (see Figure 7 in Appendix A of this DEIS), the soils on the subject property are mapped as Plymouth loamy sand, 0 to 3 percent slopes (PlA), Plymouth loamy sand, 3 to 8 percent slopes (PlB), Plymouth gravelly loamy sandy, 3 to 8 percent slopes, eroded (PmB3), Plymouth gravelly loamy sandy, 8 to 15 percent slopes, eroded (PmB3), Riverhead sandy loam, 0 to 3 percent slopes (RdA) and Riverhead sandy loam, 3 to 8 percent slopes (RdB).[2] The table below identifies the soil types and the approximate area across the subject property.

Table 5 – Soil Types Mapped On-Site

Symbol	Mapping Unit	Slopes	Approximate % of Site
PlB	Plymouth loamy sand	3-8%	32.0±
RdA	Riverhead sandy loam	0-3%	25.8±
PlA	Plymouth loamy sand	0-3%	15.8±
RdB	Riverhead sandy loam	3-8%	15.6±
PmB3	Plymouth gravelly loamy sand	3-8%	8.7±
PmC3	Plymouth gravelly loamy sand	8-15%	2.1±

As indicated in Table 5 and depicted on Figure 7 in Appendix A of this DEIS, the majority of the site is mapped with PlB soils, which are found along the southeast and central portions of the site with small portions along the northwest and northeast corners as well. The RdA soils are primarily located towards the central-south section of the subject property with portions along the east and northwest corner of the project site. PlA soils are concentrated within the north-central portion of the project site along the western property boundary. RdB soils are mapped in the southwest portion of the project site with a small portion along the northeast frontage of the subject property. It is noted that the mapped soils of

[2] https://websoilsurvey.sc.egov.usda.gov/

PmB3 and PmC3 are limited to the area in the northeast portion of the project site and associated with a former kettle pond (see Phase IA in Appendix N of this DEIS).

Relevant excerpts from the *Soil Survey* relating to the soil series and mapping units are presented below:

Plymouth Series

The Plymouth series consists of deep, excessively drained, coarse-textured soils that formed in a mantle of loamy sand or sand over thick layers of stratified coarse sand and gravel. These nearly level to steep soils are throughout the county on broad, gently sloping to level outwash plains and on undulating to steep moraines. In a representative profile the surface layer is very dark grayish-brown loamy sand, about 4 inches thick, in wooded areas. In cultivated areas the surface layer is mixed with material formerly in the upper part of the subsoil, and there is a brown to dark-brown plow layer of loam about 10 inches thick. The subsoil is yellowish-brown and brown, very friable and loose loamy sand to a depth of about 27 inches. The substratum, to a depth of about 58 inches, is yellowish-brown, loose gravelly coarse sand. Plymouth soils have low to very low available moisture capacity. Natural fertility is low. Permeability is rapid in all of these soils except those of the silty substratum phase. Permeability is moderate in the silty layer of soils in the silty substratum phase. The root zone is confined mainly to the upper 25 to 35 inches.

Plymouth loamy sandy, 0 to 3 percent slopes (PlA)

PlA soils have the profile described as representative of the series. It is mainly on outwash plains south of the Ronkonkoma moraine. The areas generally are nearly level, but they are somewhat undulating in some places. Included with this soil in mapping are small areas of Riverhead soils that have a texture that is marginal to loamy sand. Scattered throughout the county and on Fishers Island are areas that are dominantly fine sand. The hazard of erosion is slight on this Plymouth soil. This soil is fairly well suited to crops commonly grown in the county. In the western part of the county, most of this soil is used for housing developments and as industrial sites.

Plymouth loamy sandy, 3 to 8 percent slopes (PlB)

PIB soils are on moraines and outwash plains. Slopes are undulating, or they are single along the sides of intermittent drainageways. The undulating areas are generally large. The areas along intermittent drainageways are narrow and long, and they follow the course of the drainage channel. Included with this soil in mapping are small areas of Riverhead soils that are marginal to loamy sand in texture. Small gravelly areas less than about 2 acres in size are included. Included are a few small areas, particularly on Fishers Island, that are dominantly fine sand. The hazard of erosion is slight on this soil and it tends to be droughty. This soil is fairly well suited to the crops commonly grown in the county. In the western part of the county, this soil is mainly used for housing developments.

Plymouth gravelly loamy sand, 3 to 8 percent slopes, eroded (PmB3)

PmB3 soils are gently sloping, gravelly soil throughout the county. It is generally on short slopes along drainage channels in cultivated fields. In most places, the areas are small and slopes are

uniform. This soil has a profile that differs from that of the soil described as representative of the series in that it is shallower to loose sand and gravel. It generally is less than 12 to 14inches thick. In addition, the material in the solum is 15 to 20 percent rounded gravel, by volume, because of the loss of the finer soil particles. All the surface soil and much of the subsoil have been lost through erosion. The hazard of further erosion is slight to moderate on this Plymouth soil. These areas show signs of moisture deficiency after short periods of dry weather sooner than the less eroded Plymouth soils. This soil is not suited to farming, because of the loss of most of the original soil and extreme droughtiness, though small areas in large tracts of tillable land are farmed with the deeper, less eroded Plymouth soils.

Plymouth gravelly loamy sand, 8 to 15 percent slopes (PmC3)

PmC3 soils are moderately sloping soil throughout the county, but it generally is on short slopes along drainage channels that have been cleared for cultivation. In most places the areas are narrow and long, and they are parallel to the adjoining drainageways. The profile of this soil differs from the profile of the soil described as representative of the series in that all the surface soil and a large part of the subsoil have been lost through erosion. In addition, this soil is shallower to loose sand and gravel. The hazard of further erosion is moderate to severe on this Plymouth soil. In the small areas that are farmed, crops show signs of severe moisture deficiency after short periods of dry weather. This soil is not suited to crops commonly grown in the county because of damages from past erosion and extreme droughtiness of the remaining soil.

Riverhead Series

The Riverhead series consists of deep, well-drained, moderately coarse textured soils that formed in a mantle of sandy loam or fine sandy loam over thick layers of coarse sand and gravel. These soils occur throughout the county in rolling to steep areas on moraines and in level to gently sloping areas on outwash plains. These soils range from nearly level to steep; however, they generally are nearly level to gently sloping.

Riverhead soils have moderate to high available moisture capacity. Internal drainage is good. Permeability is moderately rapid in surface layer and in the subsoils and very rapid in the substratum. Natural fertility is low. The root zone is mainly in the upper 25 to 35 inches.

Riverhead Sandy Loam, 0-3% slopes (RdA)

RdA soils have the profile described as representative of the series. It is generally on outwash plains, and the areas are large and uniform. Where this soil occurs on outwash plains, it generally has slope characteristics of this landform. Slopes are undulating in places. A few small, irregular areas are on moraines. The hazard of erosion is slight on this Riverhead soils. The soil is limited only by moderate doughtiness in the moderately coarse textured solum. The soil is well suited to all crops commonly grown in the county, and it is used extensively for that purpose. Most areas in the western part of the county, however, are used for housing developments and industrial parks.

Riverhead Sandy Loam, 3-8% slopes (RdB)

RdB soils are in narrow bands on outwash plains along the side slopes of deep, intermittent drainageways. Slopes are short. The hazard of erosion is moderately severe on this soil. Controlling erosion is the main concern of management and reduces its usefulness for farming although it is suited to crops commonly grown in the county. This soil is limited by droughtiness and by the difficulty of applying irrigation water. The response of crops to applications of lime and fertilizer is good. Slope limits the use of large farm machines. A few small tracts were formerly cleared and farmed along with adjoining less sloping soils, but many of these areas are now in grass or brush because the use of heavy farm equipment on these areas is impracticable. Many of the larger areas of this soil are used for housing developments where large lots are needed. These rolling areas are in the western part of the county.

The *Soil Survey* was utilized for information regarding the potential engineering and planning limitations for each of the soils (pages 50-58). A description of the limitations, as set forth in the *Soil Survey*, are summarized in the table below.

Table 6 – Soil Engineering and Planning Limitations

Symbol	Mapping Unit	Slopes	Homesites*	Sewage Disposal Fields	Streets, Parking Lots	Lawns, Landscaping
PlB	Plymouth loamy sand	3-8%	SL	SL	M - slopes	S – sandy surface layer
RdA	Riverhead sandy loam	0-3%	SL	SL	SL	SL
PlA	Plymouth loamy sand	0-3%	SL	SL	SL	S – sandy surface layer
RdB	Riverhead sandy loam	3-8%	SL	SL	M – slopes	SL
PmB3	Plymouth gravelly loamy sand	3-8%	SL	SL	M – slopes	S – sandy surface layer; gravel; erosion
PmC3	Plymouth gravelly loamy sand	8-15%	M – slopes	M – slopes	S – slopes	S – sandy surface layer; gravel; erosion

NOTES:
Engineering and Planning Limitation Rating:
SL = Slight – Few or no limitations or limitations can be overcome at little cost.
M = Moderate – Limitation is harder to correct or that it is not possible in some areas to correct entirely.
S = Severe – Severely limited by some soil characteristic that is difficult to overcome or that the costs of overcoming the limitation are excessive.

* The *Soil Survey of Suffolk County* evaluates the engineering and planning limitations of soils for the development of homesites. However, as the *Soil Survey* does not include ratings for other types of buildings, the homesites evaluation is used to determine potential limitations for the development of the proposed action.

Prime Agricultural Soils

In 2015, the Suffolk County Department of Economic Development and Planning prepared the *Suffolk County Agricultural and Farmland Protection Plan* (hereinafter the *Agricultural and Farmland Protection Plan*).[3] The purpose of this plan was to evaluate the status of agricultural lands in Suffolk County and create a master list of farmlands for future purchase of development rights acquisitions. This plan was built upon the goals and objectives set forth in the *1996 Agricultural and Farmland Protection Plan, The Economy of Agriculture* prepared by the Suffolk County Planning Department in 1996.

The *Agricultural and Farmland Protection Plan* focuses "on the preservation and strengthening of the farming industry and the preservation of farmland throughout Suffolk County" (page xix). This study found that there are approximately 39,000 acres of farmland in Suffolk County and approximately 20,000 acres are protected by municipal governments and not-for-profit organizations (page xx). It is noted that the 30.25±-acre subject property is not protected farmland as it is privately owned.

This plan maps out and lists the types of prime agricultural soils found in Suffolk County. As shown on the Soils Map for the Town of Riverhead (see Figure 8 in Appendix A of this DEIS), the subject property contains prime agricultural soils (RdA and RdB). These soils are located primarily on the southern half of the project site with RdA soils located on the northwest corner of the project site and RdB soils located on the northeast corner of the project site. As indicated earlier in Table 5, the RdA and RdB soils comprise approximately 41.4 percent of the subject property and are contiguous in the central-southwest portion of the site.

Soil Borings

To supplement the published soil mapping data in the *Soil Survey*, soil borings were performed by Slacke Test Boring Co. to identify underlying soil deposits within the footprint of the proposed parking areas, asphalt pavement areas, as well as drainage and sanitary leaching pool areas. Specifically, eight soil borings (B-1 through B-8) were performed and drilled to a depth of 40 feet each and are depicted on the Sanitary Notes, Details and Borings of the Site Development Plans (see Sheet C-18 in Appendix C of this DEIS). Borings B-1 through B-4 were taken within the proposed footprint for Phase 1 of the proposed action and Borings B-5 through B-8 were taken within the proposed footprint for Phase 2 of the proposed action. As it relates to the mapped soils in the *Soil Survey*, the borings were placed as follows:

- Boring B-1 is located within an area mapped as PlA soils.
- Boring B-2 is located within the area mapped as PmB3.
- Borings B-3 and B-4 are located within areas mapped as PlB.
- Boring B-5 is located within the area mapped as RdA.
- Boring B-6 is located within the area mapped as PlB.
- Boring B-7 is located within the area mapped as RdB.
- Boring B-8 is located within the area mapped as PlB.

[3] https://www.suffolkcountyny.gov.

The soil profile results of these eight soil borings indicate that they are generally consistent with the characteristics of the respective soil profiles described above. It is also noted that Boring B-3 was the only boring that encountered groundwater at 36.2± feet below grade surface (bgs). A description of each boring follows:

- Boring B-1 exhibits similar soil characteristics for Plymouth soils, specifically PlA, as described above. The surface and subsurface layers contain dark brown topsoil with organics, decaying vegetation and clean sand, turning into fine silty sand and fine to coarse gravel at depths five (5) feet bgs. Between depths of six (6) feet to 11 feet bgs, Boring B-1 contains fine to medium to coarse light brown silty sand, clean sand, and traces of small gravel. At depths between 11 feet and 40 feet bgs, soils consist of fine to medium to coarse light brown and pale brown sand with traces of fine to coarse small gravel. There are some traces of fine to large gravel found within this range at depths of 20 feet to 23 feet bgs; occasional large stones between 12 feet to 14 feet bgs and 34 feet to 35 feet bgs; and occasional small stones between 18 feet to 20 feet bgs and 28 feet to 33 feet bgs.

- Boring B-2 exhibits similar soil characteristics for Plymouth soils, specifically PmB3, as described above. The surface and subsurface layers contain dark brown topsoil with organics and broken roots turning into fine silty sand and fine small gravel at depths four (4) feet bgs. Between depths of five (5) feet to 13 feet bgs, Boring B-2 contains fine to medium to coarse light brown and pale brown sand and traces of fine to coarse to small gravel, with clean sand found between five (5) feet and seven (7) feet bgs. Further down between 14 feet and 40 feet bgs the soil boring contains fine to medium to coarse light brown and pale brown sand with traces of fine to small to large gravel.

- Borings B-3 and B-4 exhibit similar soil characteristics for Plymouth soils, specifically PlB, as described above. These two soil boring profiles are overall consistent with each other. The surface and subsurface layers contain dark brown topsoil with organics, decaying vegetation and clean sand, turning into fine silty sand and fine to small gravel at depths four (4) feet bgs. Between depths of five (5) feet to eight (8) feet bgs, Boring B-3 contains fine to medium to coarse brown and boring B-4 contains light to rust brown silty sand. At these same depths, both borings containing some clean sand into fine to coarse clean sand and some fine to small gravel. From nine (9) feet to 12 feet bgs, contains fine to coarse light brown (Boring B-3), pale (Boring B-4) and rust brown sand, some fine to large gravel (Boring B-3), some fine to small (Boring B-4) gravel, and some clay within Boring B-3. Between 13 feet and 22 feet bgs, both borings contain fine to medium to coarse rust (Boring B-3), pale (Boring B-4) and light brown sand, with Boring B-3 containing gray clean sand and clay. At these depths, both borings containing coarse to fine clean sand, with Boring B-3 containing some fine to coarse small gravel and Boring B-4 containing trace fine to medium gravel. Between 22 feet and 24 feet bgs, Boring B-3 contains occasional large stone and between 25 feet and 27 feet bgs contains occasional small stone; Boring B-4 contains occasional large stone between 23 feet to 27 feet bgs. Between 28 feet to 37 feet bgs, both borings contain fine to medium light (Boring B-4), pale (Boring B-3) brown sand, some fine to small to coarse gravel, pale brown clean sand (Boring B-4), and Boring B-3 is wet/moist with groundwater encountered at 36.2± feet bgs. Between depths of 38 to 40 bgs, Boring B-3 contains medium brown sand with a trace of fine gravel and the soil is wet. Between

these same depths, Boring B-4 contains fine to medium pale brown sand with a trace of fine to coarse gravel.

- Boring B-5 exhibits similar soil characteristics for Riverhead soils, specifically RdA, as described above. The surface and subsurface layers contain fine to medium clean sand and silty sand, trace fine to small gravel, fine to medium light brown clean sand, traces of silty sand and fine to small gravel turning into medium brown and light brown silty sand with traces of fine gravel into fine to medium clean sand and traces of fine gravel at depths six (6) feet bgs. Between depths of six (6) feet to 12 feet bgs, Boring B-5 contains fine to coarse rust brown clean sand, some fine to small gravel, fine to medium pale brown clean sand with traces of large gravel. Further down between 12 feet to 40 feet bgs, the soil boring contains fine to medium to coarse pale brown clean sand with traces of fine gravel and some fine to large to coarse gravel and some crushed gravel.

- Boring B-6 and B-8 exhibit similar soil characteristics for Plymouth soils, specifically PlB, as described above. The surface and subsurface layers contain dark and medium brown and gray topsoil with organics, fine to medium silty sand, trace fine to small gravel and some clean sand, turning into fine to medium gray and light to rust brown clean sand and silty sand into medium to fine sand with traces of silt and fine to small gravel at depths four (4) feet bgs. Between depths of four (4) feet to eight (8) feet bgs, Boring B-6 contains fine to medium light brown and gray silty sand and Boring B-8 contains fine to coarse brown silty sand. At these same depths, both borings containing some clean sand into fine to small gravel. From eight (8) feet to 12 feet bgs, contains fine to coarse light brown and rust brown clean sand (Boring B-6), fine to medium rust brown and pale brown clean sand (Boring B-8) with traces of fine to small gravel for both Borings B-6 and B-8. Between 12 feet to 22 feet bgs, Boring B-6 contains fine to coarse light brown and rust brown clean sand, coarse to fine light brown and rust brown clean sand, and some fine to small gravel. At these same depths, Boring B-8 contains fine to coarse pale brown sand with traces of fine to coarse to small gravel, with occasional large stone. From depths of 22 feet to 32 feet bgs contains medium to coarse light brown and pale brown clean sand, trace fine sand (Boring B-6) some fine to small gravel for both borings and fine to coarse gravel and occasional small stone for Boring B-8. Between depths of 32 feet to 40 feet bgs, Borings B-6 and B-8 contain fine to coarse pale brown and light brown clean sand, some fine to coarse to small gravel.

- Boring B-7 exhibits similar soil characteristics for Riverhead soils, specifically RdB, as described above. The surface and subsurface layers contain fine to medium brown clean sand and silty sand, fine to small gravel with traces of organic, traces of silty sand, fine to medium gray clean sand, fine gray and light brown silty sand, and some fine to small gravel into fine silty sand at depths eight (8) feet bgs. Between depths of eight (8) feet to 22 feet bgs, Boring B-7 contains fine to coarse pale brown clean sand, some fine to coarse to small gravel with traces of large gravel. Further down between 22 feet to 40 feet bgs, Boring B-7 contains fine to medium pale brown clean sand some fine to small gravel.

Soil Quality

A Phase I Environmental Site Assessment (ESA) was performed by H2M architects + engineers (H2M) in December 2019 (see Appendix F of this DEIS). The findings of H2M's December 2019 Phase I ESA included the following Recognized Environmental Condition (REC):

- The subject property was historically used for agricultural purposes from at least the 1930s through approximately 1986. Historic usage for agricultural purposes is likely to be associated with the application of pesticides and herbicides at the project site. During the period of time the project site was used for agricultural purposes, pesticides used may have included now-banned chemicals (such as DDT), or metals-based compounds (such as lead arsenate). Such compounds may have been applied directly at the subject property, and/or may have migrated to the subject property from adjacent properties via surficial storm runoff or wind deposition. Compounds such as these, particularly metals-based compounds, tend to be immobile in the environment and remain in soil long after their application ceases.

Based on review of the Phase I ESA and a visual inspection of the project site and surrounding area, PWGC identified the following additional potential environmental concerns:

- Current and historical usage of properties in the surrounding area for agricultural purposes. As with the usage of the subject property, this usage is likely associated with the application of pesticides and herbicides. Such compounds may have migrated to the subject property from adjacent properties via surficial storm runoff or wind deposition.

- The adjacent property to the west is an active NYSDEC permitted solid waste management facility. Based on a visual inspection of this property from the public right-of-way, it appears the facility engages in processing construction and demolition (C&D) debris and vegetative waste (mulching). Refer to the Sky Materials Construction and Demolition Debris discussion below.

A Soil & Materials Management Plan (SMMP) was prepared in accordance with 6 NYCRR Part 360, Solid Waste Management Facilities General Requirements, and 6 NYCRR Part 375, Environmental Remediation Programs, and includes a sampling plan to characterize soils, and detail procedures for the handling of soils during construction activities. Section 2.1.2 of this DEIS addresses the SMMP as it relates to the proposed project and the SMMP is included in Appendix F of this DEIS.

Sky Materials Construction and Demolition Debris (Sky Materials Site)

<u>Site Background</u>

The Sky Materials Site is an approximately 50-acre site located adjacent to the west of the subject property. The site is currently occupied by a mulching/C&D processing facility on the southern portion half of the site (approximately 46 acres) and the Tractor Supply Company retail store occupying the northeastern portion to of the site (approximately 5 acres). Based on review of historical aerial photographs included in the 2019 Phase I ESA prepared by H2M and included in Appendix F of this DEIS, the Sky Materials Site was utilized for agricultural purposes from at least 1940 through approximately

the late 1990s or early 2000s. By 2006, the Sky Materials Site was being used as a sand mine. Based on aerial photographs from 2013 and 2017, the site appears to be used for its current mulching/C&D processing operation and the Tractor Supply Company store was constructed between 2017 and 2020.

Based upon documentation provided by the NYSDEC (discussed below), several entities have been permitted to operate on-site since approximately 2000, including:

- Calverton Industries LLC
- Island Shingle Recycling Corporation
- Sky Materials Corp.
- East End Recycling & Composting Co. LP

Sky Materials Site - Environmental History

The Final Scope has required that this DEIS include "a comprehensive analysis of this shared property boundary must be performed, including…any environmental issues or violations associated with Sky Materials operations and the potential impacts on the proposed development of HK Ventures [and] an evaluation of how the Sky Materials Site reclamation plan or any remediation required may impact the proposed site development, including a slope stability analysis." Accordingly, PWGC submitted requests for information under the Freedom of Information Act (FOIA) to the United Stated Environmental Protection Agency (USEPA) NYSDEC, SCDHS and Town of Riverhead for documentation related to the Sky Materials Site (see Appendix F of this DEIS). The NYSDEC provided the following documentation and an assessment follows:

- NYSDEC Spill Report (Spill 9908501) – Hydraulic oil leaking from machinery at the site was reported to NYSDEC on October 13, 1999. Although no specific location is given, NYSDEC indicates that the leak occurred within the mining pit and was limited to an area of approximately four-feet by four-feet to approximately two-feet deep. Approximately five-to-ten CY of soil were removed and properly disposed of and the NYSDEC closed the spill on October 26, 1999.

- NYSDEC Order on Consent (R1-20070130-29) dated February 7, 2007 – This Order indicates that sand mining was permitted on 41 acres of the overall 51-acre site, and that mining was concluded in January 2005; thus, the mining permit was extended to allow for reclamation activities to be completed. This Order was issued following the discovery that the president of Calverton Industries (Michael Cholowsky) was also the principal of a solid waste management company (Emjay Environmental Recycling) which was a direct violation of the terms of the mined land reclamation permit issued to Calverton Industries. It should be noted that this Order strictly relates to ownership conflict and does not state that solid waste from Emjay Environmental Recycling was used, disposed of, or dumped at the Sky Materials Site. The compliance schedule included in the Order indicates that two years of groundwater monitoring was to be performed at the Sky Materials Site. However, no groundwater data was provided by NYSDEC in the response to the FOIA request.

- NYSDEC Order on Consent (R1-20090720-101) dated August 17, 2009 – This Order indicates that in April 2008, multiple loads of dredge spoils were disposed of at the Sky Materials Site in violation of Calverton Industries' permit and previous Orders. The compliance schedule included in the Order required that mine slopes at the site be properly graded and seeded and that groundwater monitoring (semi-annual sampling) continue until June 2011. No information regarding sloping/seeding activities or groundwater data was provided by NYSDEC in the response to the FOIA request.

- Registration Form for a Solid Waste Management Facility (52 M 67 R) dated March 21, 2011 - This form (for Island Shingle Recycling) indicates that the Sky Materials Site may be used for the recycling of up to 25,000 tons of source-separated asphalt roof shingles and that up to 10,000 tons of that material may be stored on-site.

- Beneficial Use Determination (BUD 960-1-52) dated March 21, 2011 – This BUD allows Island Shingle Recycling to process non-asbestos containing asphalt roofing shingles for reuse as an asphalt feedstock. The BUD allows the shingles to be processed on-site and shipped off-site to asphalt manufacturers. There is no indication that asphalt processing/manufacturing was done at the Sky Materials Site.

- Registration Form for a Solid Waste Management Facility (52 W 80 R) dated May 9, 2011- This form (for Sky Materials Corp.) indicates that the Sky Materials Site may be used for the recycling of uncontaminated brick, asphalt, soil or rock (1,000 CY per day, up to 25,000 CY unprocessed, 10,000 CY processed stored on-site), uncontaminated unadulterated wood (300 CY per day, up to 50,000 CY unprocessed, 15,000 CY processed stored onsite), and yard waste (10,000 CY per year, 10,000 CY stored on-site).

- NYSDEC Order on Consent (R1-20141007-127) dated October 15, 2014 – This Order indicates that Island Shingle Recycling violated the terms of their facility permit and BUD by failing to properly dispose/process roofing shingles. The compliance schedule in the Order required that all roofing shingles on-site be removed. No information regarding the removal of this material was provided by NYSDEC in the response to the FOIA request.

- Modification to NYSDEC Order on Consent (R1-20141007-127) dated July 27, 2015 – This Order modification was issued to extend the time permitted for Island Shingle Recycling to comply with the original Order. No information regarding the removal of this material was provided by NYSDEC in the response to the FOIA request.

- Permit (1-4730-00156/00005) dated April 8, 2016 – East End Recycling and Composting Co. was issued a permit to construct and operate a solid waste management facility (Facility ID 52M20), and authorizes the receiving and processing of up to 500 tons per day of non-hazardous solid waste. The facility is prohibited from accepting asbestos, hazardous waste, industrial waste, medical waste radioactive waste and liquid waste, or municipal solid waste containing source separated recyclables.

- NYSDEC Order on Consent (R1-20170913-227) dated April 16, 2018 – This Order indicates that Sky Materials Corp. exceeded the quantities of materials permitted to be stored on-site per their registration. The compliance schedule included in the Order indicates that Sky Materials must submit to NYSDEC and comply with an On-site Waste Reduction Plan (OWRP) to reduce the amount of material stored on-site. No information regarding compliance with this Order was provided by NYSDEC in the response to the FOIA request.

Responses to FOIA requests to USEPA, SCDHS and the Town of Riverhead (Code Enforcement, Building Department) indicated that these agencies do not have records related to the Sky Materials Site (see Appendix F of this DEIS).

Refer to Section 2.1.2 of this DEIS for discussion on potential environmental impacts from the Sky Materials Site on the subject property.

Topography

Based upon the United States Geological Survey (USGS) Topographic Map, Eastport Quadrangle (see Figure 9 in Appendix A of this DEIS) and a site-specific topographic map as prepared by Gallas Surveying Group (see *Boundary and Topographic Survey* in Appendix C of this DEIS), the elevation of the subject property ranges from 83.7± feet above mean sea level (amsl) at the northwest corner to 66.7± feet amsl in the southwest portion over a distance of approximately 2,510 linear feet. The elevation of the subject property slopes generally from the north to the south. The topography on the project site is relatively flat in the central portion and varies in the northeast corner and western portions of the subject property. In the northeast, a former kettle pond is associated with the deviation in topography and along the western portion of the project site there is a large earthen berm. Much of the project site topography is associated with the former agricultural use of the subject property.

As indicated in Table 7 below, the existing slopes on the subject property are primarily less than 10 percent (i.e., approximately 75 percent of the project site).

Table 7 – Existing Slopes

Slope Breakdown	Percentage of Site
0-10 percent slopes	75 percent
10-15 percent slopes	15 percent
Greater than 15 percent slopes	10 percent

2.1.2 Potential Impacts

Soils

As indicated in Table 6 in Section 2.1.1 of this DEIS, the *Soil Survey* indicates there are few to no engineering limitations for the development of buildings and sanitary disposal systems on-site, with the exception of PmC3 soils which have moderate limitations due to steep slopes. The PmC3 soils occupy a land area of less than one acre in the northern portion of the site, and within an area proposed for regrading.

There are moderate limitations for streets or parking lots identified for those soils with steeper slopes (i.e., PlB, RdB, PmB3) and severe limitations for the PmC3 soils. The proposed grading program includes regrading of the entire site such that approximately 92.47 percent of the project site would be comprised of slopes of less than 10 percent (see Table 8, below) which would overcome limitations for streets or parking lots.

There are severe engineering limitations for the establishment of lawns and/or landscaping on the PlA, PlB, PmB3 and PmC3 soils due to sandy surface layers, and the presence of gravel (PmB3 and PmC3 soils only). This limitation would be overcome with soil mixing and the addition of topsoil prior to planting. Overall, there are no engineering limitations that would impact the proposed development.

Loss of Prime Agricultural Soils

The subject property is comprised of approximately 41.4 percent of RdA and RdB soils, which are prime agricultural soils and would be developed as part of this proposed project. However, these soils are contiguous in the southern portion of the property (central-southwest) and are not throughout the subject property. Also, as noted in Section 1.3.2 of this DEIS, the Town Comprehensive Plan identified the subject property for IR Use (see Figure 3 in Appendix A of this DEIS). This use is "intended to provide a mix of commercial recreation uses and moderate-scale industrial development… (page 2-5)." The Town Comprehensive Plan states, "the Proposed Land Use Plan sets a precedent for future development because once it is adopted it will become the basis and implementing authority for the Town's new zoning map (page 2-2)." As such, the proposed action is consistent with the Town Comprehensive Plan and the prevailing zoning. It is also noted that the Town of Riverhead has an APZ district, which is intended to promote and sustain agricultural activity and farming, through cluster development, while protecting prime soils. The subject property is not identified within this protection zone.

Based on the foregoing, although the existing prime agricultural soils would be developed upon, this would not constitute a significant adverse loss of prime agricultural soils, as many protected farmland and agricultural land uses exist in the general vicinity of the subject property, the hamlet of Calverton, the Town of Riverhead and Suffolk County as a whole.

Construction-Related Impacts

The subject property would be regraded in its entirety to accommodate the building foundations, internal drive aisles and parking areas, utilities and drainage infrastructure, inclusive of recharge basins,

drywells, catch basins and pervious pavers for the proposed development. As the subject property includes varied topography (i.e., from 83.7± feet amsl at the northwest corner to 66.7± feet amsl in the southwest portion), the proposed action would result in the modifications of slopes to achieve a level building area. As indicated on the Construction Phasing Plan (see Sheet C-29 in Appendix C of this DEIS), the proposed action would be undertaken in two phases with Phase 1 consisting of two segments - Phase 1A and Phase 1B. Phase 1A includes 10.75± acres of land area and once stabilized, the work within Phase 1B would commence over 12.64± acres. Phase 2 includes the remaining 6.86± acres.

As indicated in Table 2 of this DEIS, approximately 1,555 CY of trees and shrubs would be cleared from the entire project site. It is noted that during construction, approximately 4,298 CY of topsoil would be reused within the Phase 1 and Phase 2 proposed landscaped areas. However, approximately 44,512 CY of topsoil would be removed from the project site. The project site would then be graded for the proposed development and would utilize construction equipment, including but not limited to an excavator, backhoe, and bulldozer for earthwork. The overall grading program would result in an excess cut of approximately 6,279 CY of material. The maximum depths of cut and fill would be 20.2± feet and 14.8± feet, respectively. It is noted that the material cut in Phase 1 would be deposited and used for Phase 2, so removal of material cut would occur entirely during Phase 2. All excess soils would be transported to permitted off-site facilities in accordance with NYSDEC Part 360.

Construction Trucks

Based upon an estimated load of 20 CY per construction vehicle, Phase 1A is projected to generate 30 trucks for removal of material associated with clearing and grubbing (i.e., 600 CY of trees and shrubs), 1,917 trucks associated with the removal of topsoil (38,340 CY), and approximately 10 construction equipment deliveries. This equates to approximately 10-15 trucks per day. Phase 1B is projected to generate 35 trucks for removal of material associated with clearing and grubbing (i.e., 699 CY of trees and shrubs), approximately 10 construction equipment deliveries, and 75-90 roll off dumpsters associated with debris removal. Construction traffic during Phase 1B of the proposed action would equate to approximately 1-2 trucks per week. It is noted that all material to be removed during Phase 1 of the proposed development (Phase 1A and Phase 1B) would be expected to occur over a period of approximately six months.

Phase 2 is projected to generate 13 trucks for removal of material for clearing and grubbing (256 CY), 309 trucks for the removal of topsoil (6,172 CY), 314 trucks for exporting cut material (6,279 CY), approximately 10 construction equipment deliveries, and 62-75 roll off dumpsters associated with debris removal. This would equate to approximately 2 trucks per day. It is noted that all material to be removed during Phase 2 of the proposed development would be expected to occur over a period of approximately six months.

Proposed Erosion and Sedimentation Controls

The proposed action would result in the disturbance of soils for building foundations, drainage infrastructure, STP, utilities, paving, and landscaping. The disturbance of soils for construction and regrading activities increases the potential for erosion and sedimentation.

As indicated in the NYSDEC's *New York State Standards and Specifications for Erosion and Sediment Control, Blue Book* (November 2016), the erosion potential of a site is determined by five factors: soil erodibility, vegetative cover, topography, climate, and season. Soil erodibility is dependent on the structure, texture, and percentage of organic matter in the soil. Vegetative cover protects soils from the erosive forces of precipitation and runoff or overland flow, as top growth vegetation shields the soil surface from precipitation while the root mass holds soil particles in place. Also, grasses limit the speed of runoff and help to maintain the infiltration capacity of the soil. The establishment and maintenance of vegetation are identified as the most important factors in minimizing erosion during development. Topography, including both slope length and steepness, influences the volume and velocity of surface runoff. Long slopes carry more runoff to the base of the slope, and steep slopes increase runoff velocity. The climate also affects erosion based upon the volume of runoff. Rainfall frequency, intensity and duration have direct influences on the ability for stormwater to infiltrate soils. Finally, seasonal variations in temperature and rainfall affect the erosion potential of soils.

In accordance with Chapter 275 of the Riverhead Town Code (*Stormwater Management and Erosion and Sediment Control*), the project engineer has prepared an Overall Soil Erosion and Sediment Control Plan (see Sheet C-30 in Appendix C of this DEIS) and a Stormwater Pollution Prevention Plan (SWPPP) report (see Appendix D of this DEIS). As included on the proposed plans and SWPPP Report, all erosion and sedimentation controls would be installed prior to the commencement of work and will be inspected and maintained during construction. In accordance with §275-7, the erosion and sedimentation controls and methods by which stormwater would be accommodated during construction have been designed to be consistent with the NYSDEC's *New York Standards and Specifications for Erosion and Sediment Control, Blue Book* (November 2016), the NYSDEC *New York State Stormwater Management Design Manual* (2015). Water quantity and water quality controls (post-construction stormwater runoff controls) have also been included.

The proposed erosion and sedimentation controls to be undertaken prior to and during construction would include, at minimum, stockpile protection, minimizing the extent and duration of exposed areas, stabilizing exposed areas, inlet sediment control devices for storm structure protection, silt fencing, and a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles. All erosion and sediment control measures would be routinely inspected and maintained such that no sediment would be transported off-site.

The potential for fugitive dust (i.e., soil particles that become airborne when disturbed by heavy equipment operation or through wind erosion of exposed soil after groundcover is removed) would be controlled with dust control measures including the wetting of surfaces during dry periods. A community air monitoring program (CAMP) has also been prepared for the proposed project which would be implemented, if necessary, during construction. The proposed CAMP is discussed later in this section of the DEIS. Overall, the aforementioned erosion and sedimentation controls would minimize the potential impacts associated with construction activities.

In accordance with §275-6.B.1.d., construction phasing has also been addressed by the project engineer (see the BMP Implementation & Maintenance Sequence Table on Sheet C-30 in Appendix C of this DEIS). It is acknowledged that Chapter 275 does not permit the disturbance of greater than 5.00 acres at any one time without approval from the NYSDEC. Due to the size of the project site, and with the proposed erosion and sediment controls in place, the Applicant sought and received approval from the NYSDEC

(see Appendix E of this DEIS). Overall, as indicated on the Construction Phasing Plan (see Sheet C-29 in Appendix C of this DEIS) Phase 1 will be separated into two sections (Phase 1A and Phase 1B). Phase 1A would disturb 10.75± acres and once stabilized, the work within Phase 1B would disturb 12.64± acres. Phase 2 would disturb the remaining 6.86± acres.

Overall, while the proposed action would clear the entire 30.25 acres, the proposed development would be constructed in two phases and within each phase, erosion and sedimentation controls would be in place such that no significant adverse impacts would be expected. See Section 3.5 of this DEIS for construction-related impacts associated with the proposed action.

Impacts from Sky Materials Construction and Demolition Debris (Sky Materials Site)

Based on review of historical aerial photographs, there is no evidence of piles of soil or debris, or other evidence of improper dumping associated with the Sky Materials Site on the subject property. A field visit was also conducted by PWGC staff on April 3, 2021 to observe project site conditions and compare to aerial photography. Based on the field visit, there is evidence of a possible access road/trail that appears to be associated with the Sky Materials Site that encroached onto the southwestern corner of the subject property from approximately 2006 to 2010 (the trail is currently overgrown with vegetation). Based on the documented history of poor housekeeping, violations, and non-compliance with permit conditions (as noted in Section 2.1.1 of this DEIS), it is possible that soils, C&D debris and/or other materials from Sky Materials may have been improperly dumped along the common boundary with the subject property. Accordingly, prior to construction, sampling would be performed to determine whether improper dumping has occurred and has been included in the proposed SMMP (see Appendix F of this DEIS).

As discussed earlier in Section 2.1.1 of this DEIS, the Order on Consent (R1-20090720-101) dated August 17, 2009 required that mine slopes subject to erosion should be properly graded and seeded. The compliance schedule did not include specific information regarding which mine slopes required corrective action and no information was received from the NYSDEC on whether actions were performed, as required.

Review of the aerial photographs from 2009 and 2020 appears to indicate that the slopes along the eastern property boundary have not been modified significantly since the Order on Consent was issued in 2009 other than natural plant growth occurring on the slopes. Accordingly, it is assumed that no significant re-sloping/regrading or reseeding along the eastern boundary has been completed. Based on visual inspection of the slope on the eastern boundary of the Sky Materials Site and the ecological survey performed by Land Use Ecological Services (see Section 2.3 of this DEIS), the vegetation on the slope is significantly regrown. Furthermore, the vegetation on the slope along the eastern boundary of the Sky Materials Site appears to be established and stabilized, with no indication of major erosion, gullying or slipping. It is also noted that the Proposed Grading Plan for the subject property considers the grades on all adjoining properties and the proposed design includes a 40-foot to 44-foot vegetated side yard setback along the western property line. As such, there are no expected impacts to the subject property related to the existing vegetated slopes along the eastern boundary of the Sky Materials Site.

Proposed Soil & Materials Management Plan (SMMP)

A SMMP dated June 2020 and Revised April 2021 has been prepared by PWGC in accordance with 6 NYCRR Part 360 (Solid Waste Management Facilities General Requirements) and 6 NYCRR Part 375 (Environmental Remediation Programs), and includes a sampling plan to characterize soils, and detail procedures for the handling of soils during construction activities. Specifically, as indicated in the SMMP included in Appendix F of this DEIS, soil characterization (i.e., screening sampling) would be performed to evaluate potential impacts related to the former agricultural usage of the subject property as well as the current and historical usage of the adjacent property to the west of the subject property (i.e., Sky Materials Site). Prior to construction, a total of 150 composite surface soil samples at a frequency of five shallow soil borings per acre would be installed and collected. Refer to the SMMP in Appendix F of this DEIS for information on drilling and sampling collection procedures for the shallow soil borings to be performed. Sampling data would be compared to the Unrestricted Use Soil Cleanup Objectives (UUSCOs) specified in 6 NYCRR Part 375-6 (Remediation Program Soil Cleanup Objectives), and the Fill Material Requirements specified in Table 2 of 6 NYCRR Part 360.13 (Special Requirements for Pre-Determined Beneficial Use of Fill Material).

Following completion of screening and sampling the soils on-site, sample grids would be categorized as follows:

- Sample grids where soils meet Unrestricted Use SCOs.
- Sample grids where soils exceed Unrestricted Use SCOs but meet General Fill Requirements.
- Sample grids where soils exceed General Fill Requirements.
- Sample grids where soils exceed Restricted Use Fill Requirements.

General soil management requirements for each of these categories are detailed in the SMMP in Appendix F of this DEIS.

In the event that impacted soils require offsite disposal, endpoint soil samples would be collected after soil management measures are completed to determine whether surface soil concentrations of metals or chlorinated pesticides meet applicable standards. Upon completion of soil management activities and endpoint sampling, a SMMP Completion Report would be prepared to certify that required soil was managed in accordance with the SMMP and endpoint sample results indicate that the surface soils do not contain concentrations of metals or chlorinated pesticides above their respective SCOs. The Completion Report would be submitted to the Applicant following final capping of the project site.

Accordingly, by implementation of the SMMP, any impacted soils would be handled appropriately such that no significant adverse impacts would result.

Proposed Community Air Monitoring Plan (CAMP)

A CAMP, dated February 2021, has been prepared (see Appendix F of this DEIS) to outline specific measures for the protection of on-site construction workers and downwind properties (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved in the construction) from potential airborne contaminant releases resulting from construction activities performed at the subject property. Upon completion of the on-site soil characterization analysis during

implementation of the SMMP, it would be determined if the procedures outlined in the CAMP are applicable due to impacted soils.

Should implementation of the CAMP be needed (based on the findings of the soil sampling outlined in the SMMP), real-time air monitoring would be conducted within the work area and along the project site perimeter during intrusive activities (e.g., excavation and soil handling). As indicated in the CAMP, during construction, VOC's and particulates would be monitored. Should high concentrations be detected, the monitoring staff would temporarily cause construction to be halted and the sources would be identified. Corrective actions would be taken, as necessary, to abate emissions.

The CAMP also sets forth dust control measures to be implemented during construction. Such measures would include the following:

- Use of a dedicated water spray methodology for roads, excavation areas and stockpiles by use of an on-site water truck.
- Construction workers to exercise extra care during dry and high-wind periods. This may include, using the dedicated water spray methodology continuously during excavation to prevent dust emissions and/or postponing excavation until high winds subside.
- Transportation of soils on-site will be performed in a covered vehicle with tight-fitting tailgates to secure loose soil, or the soils must be sufficiently watered to prevent dust emissions.
- Vehicles should not exceed 10 miles per hour (mph), and the project site should be posted with speed signs.
- Use of approved aggregate or gravel on egress, other roadways, and designated/undesignated parking areas to provide a clean and dust free road surface.

Overall, based on the above, no significant adverse impacts from on-site construction would be expected.

Topography

The subject property would be regraded in its entirety to accommodate the proposed building foundations, infrastructure, drive aisles, utilities, and landscaped areas. As the subject property includes varied topography primarily in the northeast and western portions of the project site, the proposed action would result in the modifications of slopes to achieve a level building area. As indicated below, the slopes on the project site would be modified to accommodate the proposed development.

Table 8 – Post-Development Slope Breakdown

Slope Breakdown	Percentage of Site (Existing)	Percentage of Site (Proposed)
0-10 percent slopes	75 percent	92.47 percent
10-15 percent slopes	15 percent	0.74 percent
Greater than 15 percent slopes	10 percent	6.79 percent

Upon implementation of the proposed action, the subject property would be modified to generally slope downward from Middle Country Road to the southern end of the project site. Overall, the elevations would range from 88± feet amsl in the north to approximately 55± feet amsl in the south. The northern

portion of the project site would vary in topography from 71± feet amsl to 88± feet amsl with two (2) three-foot high berms in the northwest and northeast corners of the project site. The three-foot berm on the northwest corner would range from 83± feet amsl to 88± feet amsl. The three-foot berm on the northeast corner would range from 75± feet amsl to 78± feet amsl.

The north perimeter of the project site would be graded to generally meet the existing grade of Middle Country Road. The central portion of the subject property where the proposed buildings, parking areas and asphalts areas would be located, would generally maintain elevations between 69± feet amsl and 74± feet amsl. Along the east and west perimeters of the subject property, in the proposed landscape areas, the topography would range from approximately 69± feet amsl to 82± feet amsl moving from south to north. The east and west perimeters along the project site boundary line would be graded to generally meet the existing grades of the surrounding properties. The proposed recharge basin to the south would range in elevation from 53± feet amsl to 69± feet amsl. Along the southern project site boundary, the topography would range from 65± feet amsl to 67± feet amsl to meet the existing grade of the EPCAL walking trail to the south.

As shown in Table 8 above, the subject property would generally maintain slopes between zero and 10 percent. Approximately 6.79 percent of the project site would have slopes greater than 15 percent, which includes the proposed berms along the northern portion of the subject property as well as the recharge basin. Overall, the proposed changes in slopes would accommodate the proposed development, while minimizing the volume of material required to be removed from the project site. Moreover, the proposed slope modifications would allow for on-site control of stormwater runoff without any significant adverse impacts to the surrounding properties. As indicated above, the grading program would result in an excess cut of approximately 6,279 CY of material for the proposed development, which would be transported to permitted off-site facilities in accordance with NYSDEC Part 360.

Overall, no significant adverse impacts associated with the proposed grading and development of the project site would be expected.

2.1.3 Proposed Mitigation

No significant adverse soil impacts are expected to result from the proposed action. Also, the proposed topographic changes would not result in significant adverse impacts. The following measures have been incorporated into the proposed project to avoid or minimize potential impacts:

- Prior to construction, the proposed SMMP will address any potential impacts from the past on-site agricultural practices and the adjacent Sky Materials Site such that soils and materials are properly categorized and handled in accordance with prevailing regulations.

- The proposed CAMP will be implemented, as needed, to protect on-site construction workers and the downwind community from potential airborne contaminant releases resulting from construction activities performed at the subject property.

- Erosion and sedimentation controls will be undertaken prior to and during construction and would include, at minimum, stockpile protection, minimizing the extent and duration of exposed

areas, stabilizing exposed areas, inlet sediment control devices for storm structure protection, silt fencing, and a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles. All erosion and sediment control measures will be routinely inspected and maintained such that no sediment would be transported off-site.

- The proposed removal of material to achieve finished grades and the overall site design (inclusive of the recharge basin) will be performed by licensed carters and all material will be transported to permitted off-site facilities in accordance with NYSDEC Part 360.

2.2 Water Resources and Plans

2.2.1 Existing Conditions

Groundwater

Regional Geology / Hydrogeology

The hydrogeologic setting of Long Island is well documented and consists of crystalline bedrock composed of schist and gneiss overlain by layers of unconsolidated deposits. Immediately overlying the bedrock is the Raritan Formation, consisting of the Lloyd sand confined by the Raritan Clay Member. The Lloyd sand is an aquifer and consists of discontinuous layers of gravel, sand, sandy and silty clay, and solid clay. The Raritan Clay is a solid and silty clay with few lenses of sand and gravel; abundant lignite and pyrite; and gray, red or white in color.

Above the Raritan Clay lies the Magothy Formation. The Magothy Aquifer consists of layers of fine to coarse sand of moderate to high permeability, with inter-bedded lenses of silt and clay of low permeability resulting in areas of preferential horizontal flow. Therefore, this aquifer generally becomes more confined with depth. The Magothy Aquifer is overlain by the Upper Glacial Aquifer. The Upper Glacial Aquifer is the water table aquifer at this location and is comprised of medium to coarse sand and gravel with occasional thin lenses of fine sand and brown clay. This aquifer extends from the land surface to the top of the Magothy and, therefore, is hydraulically connected to the Magothy Aquifer.

Depth to Groundwater and Flow Direction

To determine the depth to groundwater beneath the project site, the *USGS Groundwater Conditions on Long Island Map* (2016)[4] (hereinafter the "USGS Groundwater Map"), USGS Topographic Map (Wading River Quadrangle), topographic survey (see Appendix C of this DEIS) and the on-site soil borings performed by Slacke Test Boring Co. (see Section 2.1 of this DEIS) were utilized. Based upon the USGS Groundwater Map, which depicts the water table elevation conditions across Long Island (see Figure 10 in Appendix A of this DEIS), the water table elevation beneath the project site is approximately 26 feet amsl. As the subject property ranges in elevation from approximately 66.7 feet amsl in the southwest portion of the project site to approximately 83.7 feet amsl in the northwest corner of the project site (see

[4] United States Geological Survey. *Groundwater Conditions on Long Island Map.* 2016. Retrieved from: https://ny.water.usgs.gov/maps/li-gc/. Accessed February 2020.

Section 2.1.1 and Figure 9 in Appendix A of this DEIS), the depth to groundwater beneath the project site would be expected to range from 40.7± feet bgs in the southwest portion of the project site to 57.7± feet bgs in the northwest corner of the project site.

The depth to groundwater was generally confirmed during the soil borings (see Sheet C-18 in Appendix C of this DEIS), which soil boring B-3 (located near the central portion of the project site along the west side of the subject property) encountered groundwater at a depth of 36.2± feet bgs.

Regarding flow direction, the groundwater table corresponds to the sea level on the north and south shores of Long Island and rises in elevation at the center of the Island. The groundwater high point is referred to as the "groundwater divide." The subject property is situated north of the groundwater divide, and thus, has a general northerly flow direction. Based upon the Suffolk County groundwater models developed for the Long Island Nitrogen Action Plan (LINAP), the local groundwater flow direction beneath the site is to the northeast.

The Long Island Comprehensive Waste Treatment Management Plan (208 Study)

The Long Island Comprehensive Waste Treatment Management Plan was prepared in 1978 as a management plan for groundwater resources. As the plan was established under Section 208 of the 1972 Federal Water Pollution Control Act Amendments, it is commonly referred to as the "*208 Study*." The *208 Study* divided Long Island into eight hydrogeologic zones and identified best management practices to protect both ground and surface waters.

According to the *208 Study*, the subject property is located in Hydrogeologic Zone III (see Figure 11 in Appendix A of this DEIS). Zone III is located in the central portion of Suffolk County with a small portion extending to eastern Suffolk County. This zone is a deep recharge area and groundwater quality is generally very high due to low density and primarily non-agricultural land uses throughout much of the zone. In the western portion of the Zone, where development exists, some contamination occurs within the Upper Glacial aquifer. In this zone, control of non-point sources is necessary for the protection of the resource itself, and the entire zone should be governed by non-degradation regulations.

The *208 Study* included area wide alternatives for each hydrogeologic zone. For Zone III, the relevant highest priority area wide alternatives are as follows:

- *Require nitrogen removal for treatment plants recharging effluent.*
- *Provide for routine maintenance of on-site disposal systems.*
- *Restrict the use of inorganic, fast-acting fertilizers. Promote the use of low-maintenance lawns.*
- *Control stormwater runoff to minimize transport of nutrients, metals and organic chemicals to groundwaters.*

A consistency analysis with these recommendations is included in Section 2.2.2 of this DEIS.

The Long Island Comprehensive Special Groundwater Protection Area Plan (SGPA Plan)

There are nine Special Groundwater Protection Areas (SGPA's), which are also considered Critical Environmental Areas (CEAs) on Long Island, including North Hills, Oyster Bay, West Hills/Melville, Oak Brush Plains, South Setauket Woods, Central Suffolk, Southold, South Fork and Hither Hills. The subject property is located within the Central Suffolk SGPA (see Figure 12 in Appendix A of this DEIS).

The *SGPA Plan* discusses general recommendations for all nine SGPA's, as well as issues and opportunities specific to each of the nine SGPA's. The relevant recommendations and opportunities, and the proposed development's consistency therewith, is discussed below in Section 2.2.2 of this DEIS.

Suffolk County Comprehensive Water Resources Management Plan

The *Suffolk County Comprehensive Water Resources Management Plan* was completed in 2015 to set forth goals and objectives targeted to protect and improve ground and surface water quality based upon updated water quality investigations. The primary areas for improvement identified in the plan are as follows: Nitrogen, VOC's, Pesticides, Pharmaceuticals and Personal Care Products (PCP's) and Potable Supply. The plan outlines a number of recommendations for improving conditions in each of the aforementioned areas. The recommendations are primarily guided towards additional evaluation of groundwater and surface water, development of alternative on-site wastewater treatment options for residential and non-residential properties, educational outreach programs for fertilizer and pesticide reduction and expansion of the potable water supply to communities where public water is not available. While this plan outlines specific goals that are municipally minded, the overall intent of the plan is to reduce the overall levels of contaminants, such as fertilizers, pesticides and nitrogen in ground and surface waters. A consistency analysis with these recommendations is included in Section 2.2.2 of this DEIS.

Sanitary Waste

As the subject property is currently undeveloped, there is no sanitary waste generated on-site.

Suffolk County Sanitary Code

<u>Article 6 – Single-Family Residences, Realty Subdivisions, Developments and Other Construction Projects</u>

Article 6 of the Suffolk County Sanitary Code (SCSC) regulates sewage disposal for realty subdivisions, development, and other construction projects for the protection of water resources. To limit nitrogen loading in various groundwater management zones, Article 6 sets forth population density equivalents. The subject property is located within Groundwater Management Zone III. Pursuant to Section 706-610 of Article 6 (Sewage Facilities Requirements for Other Construction Projects [Other Than Single-Family Residences and Conventional Single-Family Residential Subdivisions or Developments)], for projects within Groundwater Management Zone III (see Figure 14 in Appendix A of this DEIS), individual sewerage systems are permitted for projects that do not exceed a sanitary flow rate of 300 gpd per acre. Utilizing the gross land area of 30.25± acres, the maximum permitted sanitary flow would be 9,076 gpd

(30.25 acres x 300 gpd/acre = 9,076 gpd). As noted, the project site is currently undeveloped, and thus, no sanitary waste is being generated on-site.

Article 6 also includes requirements with regard to water facilities for construction projects other than conventional single-family residential realty subdivisions and developments. Pursuant to Section 706-611, a community water system method of water supply is required when any of the following conditions are present:

- the construction project, or any portion thereof, is located within an existing water district or service area;

- the construction project is reasonably accessible to an existing water district or service area (note that this requirement shall apply in the absence of proof satisfactory to the Department that the developer cannot effect arrangements for the installation and/or connection to the water system to the existing water district or service area facilities); and

- individual wells cannot provide sufficient yield of freshwater meeting Department requirements or standards, groundwaters in the area are non-potable, or potentially hazardous.

As defined in Article 6, a community water system is defined as "a source of water and necessary appurtenances together with a distribution system serving more than one parcel, whether owned by a municipal corporation, private utility, or otherwise." The subject property is located partially within the service area of the Riverhead Water District (RWD), which is a community water system. However, there is no established on-site connection and no current water demand as the project site is undeveloped. According to the project engineer, there is an existing 12-inch water main on Middle Country Road.

Article 7 – Water Pollution Control

Article 7 of the SCSC is intended "to safeguard all the water resources of the County of Suffolk especially in deep recharge areas and water supply sensitive areas, from discharges of sewage, industrial and other wastes, toxic or hazardous materials and stormwater runoff." The deep recharge areas are identified on the *Suffolk County Sanitary Code – Article 7 Groundwater Management Zones & Water Supply Sensitive Areas* map (SCDHS, 1999) as Groundwater Management Zones I, II, III and V. The Article 7 map also illustrates portions of Suffolk County as water supply sensitive areas. As defined at §760-703 of the SCSC, a water supply sensitive area includes: "[a] groundwater area separated from a larger regional groundwater system where salty groundwater may occur within the Upper Glacial aquifer, and where deepening of private wells and/or the development of community water supplies may be limited;" "[a]reas in close proximity to existing or identified future public water supply wellfields….[i.e.,] within 1,500 feet upgradient or 500 feet downgradient of public supply wells screened in the Upper Glacial aquifer;" and "[a] limited water budget area…"

Section 760-705 of Article 7 sets forth general restrictions and prohibitions for construction and/or modification of sanitary disposal systems, certain discharges, construction or operation of a treatment system and stormwater discharges. Further, Article 7 provides additional restrictions for the deep recharge zones and water supply sensitive areas. Pursuant to the Article 7 Map, the subject property

located in a deep recharge area (Groundwater Management Zone III), but it is not located within a water supply sensitive area (see Figure 15 in Appendix A of this DEIS).

Article 12 – Toxic and Hazardous Materials Storage and Handling Controls

Article 12 of the SCSC regulates the storage and handling of toxic and hazardous materials for the protection of groundwater quality. As the project site is currently undeveloped, there are no storage tanks on the subject property.

Suffolk County Subwatersheds Wastewater Plan

In July 2020, SCDHS prepared the *Suffolk County Subwatersheds Wastewater Plan* (SCSWP), as part of the LINAP and to fulfill the recommendations of the *Suffolk County Comprehensive Water Resources Management Plan*, to address and reduce nitrogen pollution in surface waters and groundwater within Suffolk County. The intent of the SCSWP is to provide a roadmap for Suffolk County to take meaningful steps to implement recommendations aimed at reducing nitrogen loading from wastewater resources into the waters of Suffolk County. The SCSWP found that an estimated 63.6 percent of the nitrogen reaching groundwater in Suffolk County subwatersheds originates from on-site wastewater systems (page 1-4). Currently, many of the wastewater management practices in Suffolk County exceed the New York State Maximum Contaminant Level (MCL) of 10 mg/L set for the County as well as exceed the Suffolk County Sanitary Code Article 6 density of 6 mg/L.

The modeling completed as part of the SCSWP indicates that resulting MCL concentrations could be below both the Article 6 and New York State MCL densities if the plan would be implemented on a Countywide level. Furthermore, the SCSWP provides additional nitrogen reduction recommendations through the LINAP, individual estuary programs (e.g., Peconic Estuary Program), and individual Town/Village initiatives. Therefore, SCSWP is a small part of a larger Suffolk County initiative to reduce nitrogen pollution in County water resources.

According to the LINAP models (included in *Appendix D - Subwatershed Mappings, Score Cards and Planning Criteria* of the SCSWP), the nearest subwatershed is the Peconic River Middle and Tribs, which is located 0.71 miles south of the project site (see Figure 16 in Appendix A of this DEIS). Review of the subwatershed maps indicate that the subject property is located outside of the groundwater contributing area to the Peconic River Middle and Tribs subwatershed.

Nitrogen Loading

To better understand the impacts of the proposed development on nitrogen loading to groundwater, a nitrogen model was utilized. The particular model utilized was the BURBS model, developed at Cornell University by Hughes et al. (1985). The BURBS model is a computer simulation program that computes the potential impact of various land uses on groundwater within a community due to nitrogen. Cornell University has developed this model for specific application on Long Island.

To establish a baseline model, the existing and historic uses of the property were modelled. The historic uses were based upon historic aerial photographs and the confirmation of the use of the property as a

farm from the Phase I ESA. The parameters utilized in the BURBS model are explained in detail in the BURBS analysis (see Appendix G of this DEIS). The BURBS model takes into consideration, not only the wastewater nitrogen, but impacts from atmospheric deposition, fertilization, and runoff from impervious areas. Based upon the analysis of the BURBS model (see Appendix G of this DEIS), the estimated amount of nitrogen leached from the existing conditions is calculated at 21.29 lbs./year.

Water Supply and Availability

The subject property is located partially within the service area of the RWD; however, there is no established on-site connection and no current water demand as the project site is undeveloped. According to the project engineer, there is an existing 12-inch water main on Middle Country Road.

As part of this DEIS, a Water Supply Source Study was prepared by PWGC (see Appendix H of this DEIS) to evaluate the public water supply, including the location of public and private wells, to identify nearby contamination, and to determine the capacity and ability for the RWD to serve the proposed development while also considering the impacts to neighboring residential properties during peak water demand times. As part of the Water Supply Source Study, consultations were undertaken with the RWD to obtain capacity information. Below is a summary of the existing wells, nearby contamination, and capacity information, as provided by the RWD. The assessment of the potential impacts of the proposed action on the public water supply is included in Section 2.2.2 of this DEIS.

Public Supply Wells

Based upon the Public Water Supply Well Maps published by the SCDHS, there are no public water supply wells located within a one-mile radius of the subject property. The nearest public water supply wells are RWD – Grumman, Plant 12 Well Field located approximately 1.6 miles to the southwest of the project site; RWD – Edwards Avenue, Plant 16 Well Field, located approximately 1.85 miles northeast of the project site; RWD – Fresh Pond, Plant 7 Well Field, located approximately 2 miles to the northwest of the project site; and RWD – Middle Country Road, Plant 11 Well Field, located approximately 2.5 miles west of the project site. See Figure 13 in Appendix A of this DEIS for the approximate locations of these public water supply wells in relation to the subject property.

An analysis of the subject property's location with respect to the aforementioned public water supply wells was performed and indicates that the subject property is partially located within the 100-year contributing area for one public supply well (Plant 16) (see Figure 7 of the Water Supply Source Study in Appendix H of this DEIS). Section 2.2.2 of this DEIS includes an assessment of the potential impact of the proposed development to said supply well.

The RWD currently utilizes 17 active groundwater wells located at ten (10) different sites (or plants) throughout the district.[5] Consultations were undertaken by PWGC with the RWD during the preparation of this DEIS. In email correspondence sent January 14, 2021, PWGC requested information related to the capacity of the RWD to evaluate the potential impacts of the proposed development on the public water

[5] https://www.townofriverheadny.gov/files/documents/2019AnnualWaterQualityReport958080430052920AM.pdf.

supply (see Appendix I of this DEIS). Specifically, PWGC requested the current capacity of all well fields in the RWD, the storage tank capacity and locations, information on all water services within the RWD, including types (i.e. domestic, fire, irrigation) and sizes of those connections, daily pumping records for the last 10 years, and any previous analysis or studies on the capacity of the RWD.

To date, the above listed information has not been received; however, the RWD provided the Riverhead Water District - Draft Map and Plan Report for Proposed Water District Extension No. 94 - Manorville (hereinafter "RWD Draft Map and Plan Report") as prepared for the Town of Riverhead by H2M in October 2020. The RWD Draft Map and Plan Report provides a water system description of the RWD including the general service area, supply well facilities, storage facilities, and pumpage and demand, as well as the proposed extension of the RWD into Manorville, located to the southwest of the subject property.

Private Wells – On and Nearby Off-Site Wells

In addition to identifying the surrounding public supply wells, the proximity of the project site to private wells was also evaluated. In accordance with the SCDHS Guidance Memorandum #28 (Siting of a Sewage Treatment Plant), private wells within a 500-foot radius of the subject parcel was conducted. Through correspondence with the RWD dated October 20, 2020 (see Appendix I of this DEIS), it was determined that there were 20 properties with private wells within the vicinity of the subject property. Of the 20 identified properties, nine (9) properties were identified within the 500-foot radius of the subject property. Based upon the RWD correspondence, of those nine (9) properties within the 500-foot radius, four (4) were identified as not connected to the public water supply, which included the following tax map parcels:

1) 600-97-2-35
2) 600-98-1-1.1
3) 600-116-1-3.1
4) 600-98-1-3.3

The RWD verified that public water is not available to the four (4) aforementioned properties within the 500-foot radius of the subject property. According to publicly available aerial images, it appears that all four lots are undeveloped and three (3) of the four (4) appear to be actively farmed. The current groundwater quality provided by each of the existing private wells is unknown, as private wells are not typically required to monitor their water supplies.

In addition to the above coordination with the RWD, a Freedom of Information Law (FOIL) request was submitted to the NYSDEC on October 29, 2020 seeking records and locations of water wells located within the vicinity of the project site. Records requested included the location of wells, completion reports of Long Island Wells, and drillers logs/soil borings for wells that are either publicly or privately owned. On November 3, 2020, the NYSDEC provided a total of 29 Long Island Well Completion Reports. Of the completion reports provided, the wells are located to the northwest of the project site between Fresh Pond Avenue and Sunny Line Drive and South Path and Middle Country Road, with the majority of the wells located within the residential development. Of the 29 well completion reports provided, it was determined that 21 wells are used for domestic purpose, four (4) indicate that the wells are monitoring wells, one (1) of the well reports are/were test wells, one (1) is for general purpose and the remaining

two (2) are for unknown purpose (although one of the wells appears to coincide with as an inactive USGS monitoring well). Accordingly, it is assumed that of the 29 wells reported by the NYSDEC, 23 wells are for domestic or potable water uses. Refer to Figure 8 in the Water Supply Source Study in Appendix H of this DEIS and/or Figure 13 in Appendix A of this DEIS for the location of these wells in proximity to the subject property.

Monitoring Wells

Based upon information contained within the Phase I ESA, and the FOIL request to the NYSDEC, there are four (4) federal USGS monitoring wells located within a one-mile radius of the subject property. Measuring from the northwest corner of the project site boundary line, one (1) active (ID No: USGS40000836030) and one (1) inactive well (No: USGS40000836031) are located 0.1 miles northwest of the project site. The third well is an inactive well located approximately 0.45-mile southeast of the project site (ID No: USGS40000835971) and the last well is an inactive well located approximately 0.45-mile northeast of the project site (ID No: USGS4000083607). See Figure 13 in Appendix A of this DEIS for the location of these monitoring wells.

Water Quality and Nearby Contamination

The Water Supply Source Study (see Appendix H of this DEIS) analyzed potential contaminant sources from surrounding properties within the vicinity of the subject property. The following sites were analyzed: Agricultural Facilities, State Hazardous Waste Sites (SHWS), Solid Waste Facilities/ Landfill Sites (SWF/LF), and the Naval Weapons Industrial Reserve Plant (NWIRP). Figure 9 in the Water Supply Source Study provides the locations of the potential contaminant sources, and a description follows.

1. Agricultural Facilities

   Based on the Phase I ESA prepared for the subject property on December 9, 2019 (see Appendix F of this DEIS), the subject property was historically utilized for agricultural purposes from before 1938 until approximately 1986. As described in Section 2.1.1 of this DEIS, historic usage for agricultural purposes is likely to be associated with the application of pesticides and herbicides at the project site. During the period of time the project site was used for agricultural purposes, pesticides used may have included now-banned chemicals (e.g., DDT), or metals-based compounds (e.g., lead arsenate). Such compounds may have been applied directly at the subject property, and/or may have migrated to the subject property from adjacent properties via surficial storm runoff or wind deposition. Compounds such as these, particularly metals-based compounds, tend to be immobile in the environment and remain in soil long after their application ceases.

   Water quality sampling of the groundwater at the subject property has not been performed; however, based on the historical usage of the subject property and surrounding properties for agricultural purposes, there is the potential for shallow groundwater contamination in the Upper Glacial Aquifer due to pesticide application, with the types, concentrations, and extents of contamination unknown.

2. State Hazardous Waste Sites (SHWS)

   Located approximately 0.6 mile to the east-northeast of the project site at 4008 Middle Country Road is an SHWS site listed as Mackenzie Barn. The site is listed as a State Superfund Site and the data is from the NYSDEC Inactive Hazardous Waste Disposal Sites in New York State. A description of the site activities was not available in the EDR Report for the site. The site is located hydraulically downgradient of the subject property and therefore is not likely to pose an environmental threat to the subject property.

3. Solid Waste Facilities/ Landfill Sites (SWF/LF)

   Three solid waste facilities are identified within one mile of the subject property. Directly to the west of the subject property is the Sky Materials Site, which, as described in Section 2.1.1 of this DEIS, is an active NYSDEC Part 360 permitted solid waste management facility having active registrations for C&D processing facility and an active composting/yard waste facility. Located approximately 0.4 mile to the east-northeast of the subject property at 4083 Middle Country Road is a site listed as Green Meadows, LLC, which has two active registrations for C&D processing and composting/yard waste. The third site is located approximately 0.13 mile to the northwest of the subject property and is listed as East End Recycling and Composting Co. which has two inactive permits. The first is for composting (source separated organic waste) and the second permit is for a transfer station.

   Environmental or water quality data was not available for review for these three (3) sites, nor is it known in what way the facilities are, or were, operated, maintained, or monitored. However, in 2016, the SCDHS released a report investigating the impacts of compost/vegetative organic waste management (VOWM) facilities on local groundwater quality. In this report, SCDHS found that elevated metals concentrations were detected in the groundwater downgradient of the VOWM sites that were investigated. According to the report, the primary parameter that most frequently exceeded groundwater and drinking water standards was manganese. Other metals including antimony, arsenic, beryllium, cadmium, chromium, cobalt, germanium, molybdenum, thallium, titanium, and vanadium were also detected at rates that were twice what is typically seen in shallow private wells in Suffolk County. Additionally, there was an increase in metal concentrations and increased detections of radiological parameters (gross alpha and gross beta) observed downgradient of one facility and it was noted that the groundwater impacts observed at this facility did not appear to be unique to this facility. As similar groundwater impacts were observed at multiple VOWMs throughout Suffolk County, it can be inferred that these impacts are related to the operations taking place at these sites. Therefore, it is possible that there is shallow groundwater contamination in the vicinity of the project site due to these facilities.

4. Naval Weapons Industrial Reserve Plant (NWIRP)

   The NWIRP, also known as Grumman Aerospace and Northrop-Grumman is a 6,000-acre facility with the site located directly to the south and to the west of the subject property. NWIRP was a US Government owned and contractor operated facility that assembled and tested military aircrafts from 1956 to February 1996. The US Government transferred the majority of the property to the Town of Riverhead Community Development Agency (CDA) in September 1998 for economic development and is currently referred to as EPCAL. The majority of the buffer areas were transferred

to the NYSDEC for conservation and public recreation and an additional parcel was transferred to the Veterans Administration. The U.S. Navy still retains three (3) parcels totaling approximately 209 acres to continue environmental investigations and remedial activities at five (5) sites (Sites 2, 6A, 7, 10B, and the Southern Area). After these portions of the facility are remediated (as necessary), they would then be transferred to the CDA.

Site Investigations (SI), Resource Conservation and Recovery Act (RCRA) Facility Investigations (RFI), and Human Health Risk Assessments (HHRA) were conducted for the NWIRP/EPCAL property beginning in the 1990's. During these investigations and assessments, both soil and groundwater contamination was found. The groundwater contaminants detected at levels higher than the drinking water standards and groundwater quality standards include a number of chlorinated and non-chlorinated solvents, dichlorobenzene, phenolics, PAHs, pesticides, PCBs, and metals.

Investigations for poly- and perfluoroalkyl substances (PFAS) began in 2016 both on and off the NWIRP/EPCAL property. PFAS had been used in a number of different military actions, including as a component in aqueous film-forming foam (AFFF). AFFF was commonly used at fire-fighting training areas and equipment test areas, areas such as Site 2 and the Aircraft Paint Hangers on the NWIRP/EPCAL property. In addition, areas that stored or transferred AFFF are also areas of concern due to potential unreported releases to the environment. Based on historical records and interviews with personnel, AFFF was stored and either used or released at a number of locations through the NWIRP/EPCAL property.

Sampling performed both on and off the NWIRP/EPCAL property detected PFOA and PFOS in the groundwater above the then USEPA Health Advisory Limit (HAL) of 70 mg/l (New York State has since established a more restrictive limit of 10 mg/l each for PFOA and PFOS). Sampling activities are currently continuing in order to further investigate and delineate the extent of PFAS in groundwater at the NWIRP/EPCAL property and surrounding area (within one mile of the project site). Although the investigations are ongoing regarding the extent of the PFAS groundwater contamination in the vicinity of the subject property, based on the above referenced information, a conservative assumption is that there is a shallow PFAS groundwater contamination plume with unknown extents within the vicinity of the project site due to historical operations at the NWIRP facility.

Stormwater Runoff and Drainage

The subject property is currently undeveloped. All stormwater generated on-site is either infiltrated on-site or in heavy storm events, may run off to neighboring properties. Based upon the existing coverages, the subject property generates approximately 43,929 CF of stormwater runoff during a two-inch rainfall event (see

Table 9 below).

Table 9 – Existing Stormwater Runoff Generation

	Existing Site Coverage		Coefficient	Rainfall	Existing Volume (CF)
	Acres	SF		2"	
Impervious	0±	0±	1[1]	(2/12)	0± CF
Pervious	30.25±	1,317,884±	0.2[2]	(2/12)	43,929± CF
TOTAL	**30.25±**	**1,317,884±**			**43,929± CF**

Notes: [1] - Pavement, roof, concrete and other impervious areas
[2] - Landscaped, grassed, natural, pervious pavers or other pervious surfaces

Town of Riverhead Requirements

Chapter 257 of Town Code – Stormwater Management and Erosion and Sediment Control

The Town of Riverhead regulates stormwater management and discharge associated with land-disturbing activities equal to or greater than one acre, or activities disturbing less than one acre of total land area that is part of a larger common plan of development. Pursuant to §275-3(A), the "purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within the Town and to address the findings of fact in § 275-1." The performance standards for stormwater management, as set forth in §275-7, are listed below.

A. Technical standards. For the purpose of this chapter, the following documents shall serve as the official guides and specifications for stormwater management. Stormwater management practices that are designed and constructed in accordance with these technical documents shall be presumed to meet the standards imposed by this chapter:

(1) The New York State Stormwater Management Design Manual (New York State Department of Environmental Conservation, most current version or its successor, hereafter referred to as the "Design Manual").

(2) New York Standards and Specifications for Erosion and Sediment Control (Empire State Chapter of the Soil and Water Conservation Society, 2004, most current version or its successor, hereafter referred to as the "Erosion Control Manual").

B. Equivalence to technical standards. Where stormwater management practices are not in accordance with technical standards, the applicant or developer must demonstrate equivalence to the technical standards set forth in § 149-6A and the SWPPP shall be prepared by a licensed professional.

C. Water quality standards. Any land development activity shall not cause an increase in turbidity that will result in substantial visible contrast to natural conditions in surface waters of the State of New York.

Supplemental Guidelines for Industrial C Zoning District

Pursuant to Section 301-124 of the Zoning Code, there are supplementary guidelines for stormwater management in the Ind C Zoning District. As set forth in §301-124B.(5):

In order to provide recharge of the groundwater basin and minimize runoff, at least one of the following stormwater management techniques shall be used in parking lots where underlying soils support infiltration of precipitation to the groundwater:

(a) Where sanding and salting are not used in the winter, low-traffic or seasonal parking overflow areas of the parking lot shall be surfaced with porous pavement or gravel.

(b) Landscaped areas of the parking lot shall be sited, planted, and graded in a manner to provide infiltration and detention of runoff from paved areas.

Consistency of the proposed plans with the performance standards of Chapter 275 of the Town Code and the supplemental guidelines for Ind C development are evaluated in Section 2.2.2 of this DEIS.

New York State Pollutant Discharge Elimination System Permit (SPDES) - General Permit for Stormwater Discharges from Construction Activity

The NYSDEC administers the State of New York's NPDES-approved SPDES program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70. The General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001) applies to the following construction activities:

- *Construction activities involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a larger common plan of development or sale that will ultimately disturb one or more acres of land; excluding routine maintenance activity that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility.*

- *Construction activities involving soil disturbances of less than one (1) acre where the Department has determined that a SPDES permit is required for stormwater discharges based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to surface waters of the State.*

- *Construction activities located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.*

An owner or operator of a construction activity that is eligible for coverage under this permit must obtain coverage prior to the commencement of construction activity. Projects covered under the SPDES GP-0-20-001 are required to develop and implement a SWPPP that meets criteria set forth by NYSDEC.

Pursuant to Part III.C. of the SPDES GP-0-20-001 (Post-construction Stormwater Management Practice Requirements), the owner or operator of a construction activity that requires post-construction stormwater management practices must select, design, install and maintain the practices to meet the performance criteria in the New York State Stormwater Design Manual. The relevant post-construction stormwater management practice requirements are outlined below.

C. Post-construction Stormwater Management Practice Requirements

2. The owner or operator of a construction activity that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable sizing criteria in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible. In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:

(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or

(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) Overbank Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

(1) the site discharges directly to tidal waters or fifth order or larger streams, or

(2) A downstream analysis reveals that overbank control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

(1) the site discharges directly to tidal waters or fifth order or larger streams, or

(2) A downstream analysis reveals that overbank control is not required.

Section 2.2.2. of this DEIS, discusses the proposed project's conformity with the New York SPDES GP-0-20-001.

New York State Stormwater Management Design Manual

The *New York State Stormwater Management Design Manual* (2015) (*NYS Stormwater Design Manual*) was prepared to provide standards for stormwater management practices (SMPs), after site-specific conditions are considered, to protect the New York State waters from adverse impacts of urban stormwater runoff. Standard SMPs are structural practices that are acceptable for water quality treatment and meet the performance standards of this manual. Acceptable SMPs for stormwater management and treatment are divided into five broad groups (pages 3-7 and 3-8): (I) stormwater ponds which involves a permanent pool of water or a combination of permanent pool and extended detention to treat stormwater runoff; (II) stormwater wetlands which includes the use of wetlands, shallow marsh area and small permanent pools and extended detention storage to treat stormwater runoff; (III) infiltration practices which involves capturing and temporarily storing stormwater runoff before infiltration to the underlying soils; (IV) filtering practices which involves capturing, temporarily storing stormwater runoff and passing it through a filter bed of treatment media such as sand, organic matter or soil; and (V) open channel practices which involves capturing and treating stormwater within designed dry or wet cells.

As noted above, currently, there is no stormwater management infrastructure on the subject property. All stormwater generated on-site is either infiltrated on-site or in heavy storm events, may run off to neighboring properties. The proposed project's consistency with the *New York State Stormwater Design Manua*l is included in Section 2.2.2 of this DEIS.

New York State Standards and Specifications for Erosion and Sedimentation Control, Blue Book

The *New York State Standards and Specifications for Erosion and Sedimentation Control, Blue Book* (November 2016) provides standards and specifications for the selection, design and implementation of erosion and sediment control practices. This manual provides guidance for the development of Erosion and Sediment Control Plans for inclusion in a SWPPP as part of the SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001, current version). The standards and specifications provide criteria on minimizing erosion and sediment impacts from construction activity involving soil disturbance to protect the waters of the State of New York from sediment loads during runoff events (page 1.1). This manual is divided into four (4) sections with associated standards and specifications: site planning, preparation and management; erosion control (runoff control); erosion control (soil stabilization); and sediment control. The appropriate standards set forth in this manual should be incorporated into all Erosion and Sediment Control Plans.

The proposed project's consistency with the *New York State Standards and Specifications for Erosion and Sedimentation Control, Blue Book* (November 2016) is included in Section 2.2.2 of this DEIS.

Nationwide Urban Runoff Program (NURP Study)

The *Long Island Segment of the Nationwide Urban Runoff Program (NURP Study)* published in 1982 by the Long Island Regional Planning Board, notes that years of study, including the various 208 studies, have provided empirical evidence that pollutant loading contributed by nonpoint sources is greater than pollutant loading by point sources (page 1). It has been concluded that nonpoint urban runoff is the most significant nonpoint source of stormwater runoff pollution. While these conclusions had been made, there was still uncertainty regarding the role of urban runoff in contaminant transport. As such, the NURP Study, has attempted to address some critical uncertainties, as follows:

- *the actual proportion of the total pollutant loading that can be attributed to stormwater runoff, given the presence of other point and non-point sources and conditions within the receiving waters;*
- *sources, wash-off/transport mechanisms and receiving water impacts;*
- *the appropriate criteria to be used in determining the existence of a runoff problem; and*
- *the effectiveness and cost of proposed but relatively untried non-structural control measures.*

The findings and conclusions of the *NURP Study* led to a series of recommendations and priorities for implementation regarding stormwater runoff for the protection of groundwater and surface water resources. A list of these recommendations follows.

Groundwater Recommendations:

- *Continue to use recharge basins wherever feasible for the disposal of stormwater and the replenishment of the groundwater.*
- *Avoid maintenance practices that would interfere with the natural revegetation of basins by grasses and shrubs.*
- *Use "ecological recharge basins" only where their aesthetic value justifies the additional cost.*
- *Consider the use of in-line storage leaching drainage systems, or components thereof, as a substitute for recharge basins in areas, other than parking lots, where maintenance will be assured and where the value of the land for development purposes is greater than the cost of installing and maintaining the underground system. Storage leaching drainage systems should also be considered for use where the installation of recharge basins is not feasible.*
- *Prevent illegal discharges to drainage systems or recharge basins. Such discharges, which often result from improper storage or deliberate dumping or chemicals, must be controlled at the source.*

Surface Water Recommendations:

- *Preclude any additional direct discharge of stormwater runoff into surface waters, using all available means for detention and/or recharge to reduce bacterial loads.*
- *Protect stream corridors from encroachment, so that the stream reaches that will become dry because of the lowering of the water table due to sewering will always be available for stormwater detention and recharge.*

- *Inform local officials and the public regarding the nature and cost of the nonpoint source controls that must accompany further development or redevelopment and of needed changes in current practices relating to dog waste clean-up and disposal and public feeding of waterfowl.*
- *Initiate studies, including mathematical modeling where appropriate, to identify the most promising opportunities for effecting changes in certification status at reasonable cost.*
- *Initiate pilot programs designed to encourage the proper clean-up and disposal of canine fecal material and to discourage public feeding of waterfowl in order to determine the impact of such programs on receiving water quality.*
- *To achieve some portion of an important beneficial use of areas currently in violation of the standard for the taking of shellfish:*
    - *Investigate the physical, political and economic constraints on the wider use of controlled shellfish harvesting in conjunction with depuration or transplanting to certified areas.*
    - *Devise measures for minimizing or overcoming those constraints.*
- *Pursue the investigation, begun with Salmonella study, to identify and quantify the presence of human enteric pathogens in stormwater runoff and in the receiving waters. For sewage a relationship has been established between the presence of total and fecal coliforms and the associated presence of human pathogens. However, over 90% of the coliform load in estuarine waters is contributed by stormwater. Therefore, investigations into whether such a relationship exists for stormwater should be continued and expanded.*

A consistency analysis of the proposed action with the relevant recommendations of the *NURP Study* is included in Section 2.2.2 of this DEIS.

Nonpoint Source Management Program

The *Nonpoint Source Management Handbook*, which was prepared as part of the USEPA's 208 Plan Implementation Program, is divided amongst several elements: Land Use; Stormwater Runoff; On-site Systems; Highway Deicing; Fertilizer; Animal Waste; Well Location, Construction, Use and Abandonment; Boat Pollution; and Site Plan Review and Ordinances. The *Nonpoint Source Management Handbook* makes a variety of recommendations for counties, municipalities, engineers, etc., for controlling non-point sources of groundwater contamination. Relevant recommendations from this study, along with a review of the project's consistency therewith, are presented in Section 2.2.2 of this DEIS.

Wetlands and Surface Waters

Review of the NYSDEC Freshwater Wetlands Map and the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) indicates that there are no State or Federal wetlands present at or adjacent to the subject property (see Figure 17 in Appendix A of this DEIS). The nearest surface water bodies are State regulated freshwater wetlands and NWI freshwater ponds located at approximately 0.35-mile and 0.41-mile west of the project site; 0.78-mile, 0.87-mile, 0.91-mile southwest of project site; 0.87-mile and 1.23 miles southeast of the project site; and 1.16 miles south of the project site (see Figure 17 in Appendix A of this DEIS). According to the USFWS NWI, there are five (5) farmed wetlands (non-freshwater), approximately 0.28-mile, 0.45-mile, 0.56-mile and 0.60-mile to the northeast

of the subject property. The NWI also depicts one freshwater pond located 0.65-mile to the northeast of the subject property. However, these surface water bodies, including the freshwater pond, are not regulated by the NYSDEC. As described by the USFWS, the NWI map is intended as a guidance resource, rather than for regulatory use by federal, state or local government agencies in determining the jurisdictional status of wetlands.

Review of Peconic Estuary Partnership Watershed Boundary[6] indicates that a portion of the subject property is located within the northern extent of the Peconic Estuary Watershed. As evaluated by the project engineer and included in the SWPPP Report, approximately 195,561 SF (4.49± acres) of the overall project site is located within the Peconic Estuary Watershed (see Figure 17 in Appendix A of this DEIS).

Peconic Estuary Comprehensive Conservation and Management Plan, 2020

The Peconic Estuary Program Study Area Boundaries Map (see Figure 18 in Appendix A of this DEIS) depicts the subject property as being located within the estuary.

The Peconic Estuary is situated on the east end of Long Island, between the North and South Forks, and includes more than 100 distinct bays, harbors, embayments, and tributaries. The Peconic Estuary System is one of 28 national estuaries included in the National Estuary Program (NEP), which is administered by the USEPA under the auspices of Section 320 of the Clean Water Act to protect and preserve nationally significant estuaries, which are threatened by development, overuse or pollution. The Peconic Estuary Program (PEP) is sponsored by the USEPA, the NYSDEC, and the SCDHS, and together with the PEP Management Conference, completed the first Comprehensive Conservation and Management Plan in 2001 (CCMP 2001). In October 2020, the PEP completed its second Comprehensive Conservation and Management Plan (CCMP 2020).

The purpose of the CCMP 2020 is to protect and preserve the Peconic Estuary by focusing on four (4) stated main goals:

1. *Strong Partnerships and Engagement*
2. *Resilient Communities Prepared for Climate Change*
3. *Clean Waters for Ecosystem Health and Safe Recreation*
4. *Healthy Ecosystem with Abundant, Diverse Wildlife*

The CCMP 2020 identifies a set of objectives and actions for each of those goals listed above. The actions in the CCMP 2020 build on the success of work completed under PEP's previous CCMP 2001, and reflect the changing conditions in the estuary, as well as advances in scientific understanding and technical capabilities. The objectives for each goal are set forth below.

<u>Strong Partnerships and Engagement</u>

The PEP CCMP 2020 recognizes the need to cultivate relationships with new and existing partners, local governments and NGOs and reorganize its operational and financial structure. Through engagement with the community, PEP works to empower people to act as stewards in support of estuary health.

[6] https://www.peconicestuary.org/news-and-events/maps-gis/maps-watershed-boundaries/

The objectives with respect to strong partnerships and engagement include:

- *Objective A: Enhance PEP's organizational structure, operational practices, and financial position to support successful implementation of CCMP Actions.*

- *Objective B: Empower local communities to support estuary health, including underrepresented groups.*

Resilient Communities Prepare for Climate Change

The PEP CCMP 2020 recognizes the influence and increasing threat of climate change on the Peconic Estuary and the communities surrounding it. Scientifically informed, proactive efforts by local communities can reduce the negative risks and impacts associated with climate change, including sea level rise, increased storm frequency and intensity, warmer atmosphere and changing seasons, warmer waters, increased drought, rising groundwater and ocean and coastal acidification.

The objectives with respect to resilient communities prepared for climate change include:

- *Objective C: Help local communities to take meaningful, well-informed action to prepare for and adapt to climate change impacts in the Peconic Estuary.*

Clean Waters for Ecosystem Health and Safe Recreation

Fishing, shellfish harvesting, recreation, and tourism on eastern Long Island are dependent upon the Peconic Estuary's health and clean waters. The CCMP 2020 address ways to reduce nutrient pollution, harmful algal blooms, pathogens, toxic contaminants, and plastics in the estuary to support the health of people and wildlife.

The objectives with respect to clean waters for ecosystem health and safe recreation include:

- *Objective D: Protect areas with clean water from degradation.*

- *Objective E: Increase understanding of nutrient pollution in groundwater and surface waters, and decrease negative impacts from legacy, current, and future nutrient inputs.*

- *Objective F: Reduce current and future inputs of toxics, pathogens, and marine debris into groundwater and surface waters, and minimize their impacts*

Healthy Ecosystem with Abundant, Diverse Wildlife

Physical alterations to the Peconic Estuary and its watershed have harmed the estuary's habitats and living resources. The Peconic Estuary faces several key threats that have led to the loss and degradation of its habitats and wildlife including development and other human activities (i.e., channel dredging, hardening of the shoreline with erosion control structures, land clearing for roads and buildings); dams built on flowing streams; invasive species threatening biodiversity; nitrogen pollution; warmer water

temperatures; climate change; and sea level rise. The CCMP 2020 will build scientific understanding and support decision-making to address these threats.

The PEP CCMP 2020 objectives with respect to a healthy ecosystem with abundant, diverse wildlife include:

- *Objective G: Expand scientific understanding of the Peconic Estuary ecosystem and deliver information that supports management decision-making.*

- *Objective H: Restore and protect key habitats and species diversity in the Peconic Estuary and its watershed.*

Analysis of the proposed action, as it relates to the aforementioned critical challenges, goals and objectives, including the on-site containment of stormwater, sewage treatment, and the use of native vegetation to decrease required nutrient inputs (i.e. fertilizers), is included in Section 2.2.2 of this DEIS.

Floodplains

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) was consulted to determine if the subject property is located within the 100-year or 500-year Special Flood Hazard Area (SFHA) flood zones. Based upon FIRM data (FEMA Map Panel ID: 36103C0442H), the subject property is not located within a mapped SFHA (designated as Zone X on the FIRM) (see Figure 19 in Appendix A of this DEIS). Therefore, the subject property is not at risk of flooding.

Climate Change

Sea Level Rise

The New York State Legislature passed the 2014 Community Risk and Resiliency Act (CRRA) to ensure that best available data is considered when evaluating and predicting the potential impact of climate risks and extreme weather events associated with sea-level rise, storm surges, and flooding on development or planning initiatives. This legislation noted that specifically in the northeast, sea-level rise is expected to exceed the global average. By the year 2100, it is anticipated the one-in- ten-year storm could occur every three years. Therefore, the intent of the CRRA is to allow for adaptation planning with regards to climate change and sea-level rise and ensures development in vulnerable areas has adequately considered and addressed these risks. CRRA required that NYSDEC and the New York State Department of State (NYSDOS) adopt science-based projections that take into consideration future conditions and risks by January 1, 2016.

In compliance with CRRA, NYSDEC adopted 6 NYCRR Part 490 – Projected Sea-level Rise. As excerpted from §490.1, *"This Part establishes science-based projections of sea-level rise for New York State's tidal coast, including the marine coasts of Nassau, Suffolk and Westchester counties and the five boroughs of New York City, and the main stem of the Hudson River, north from New York City to the Federal dam at Troy."* New York State based its projections on the 2011 ClimAID Report, which took into consideration over 20 global climate models that were then synthesized to apply to New York State.

As described in §490.3, there is a varying confidence level in the projections. As defined, the "medium" projection is the "amount of sea-level rise that is about as likely as not (the mean of the 25th and 75th percentiles of ClimAID model outputs) to be exceeded by the specified time interval," whereas the "high-medium" projection is "the amount of sea-level rise that is unlikely (the 75th percentile of ClimAID model outputs) to be exceeded by the specified time interval." Additionally, the projections included a range of risk that was appropriate for analyzing sea level rise, as shown in the table below.

Table 10 – 6 NYCRR Part 490 New York State Sea Level Rise Projections: Long Island

	Projection	Low	Low-Medium	Medium	High-Medium	High
Time Interval	2020s	2"	4"	6"	8"	10"
	2050s	8"	11"	16"	21"	30"
	2080s	13"	18"	29"	39"	58"
	2100	15"	21"	34"	47"	72"

The subject property is approximately 2.5 miles south of the Long Island Sound and 4.4± miles northwest of the Peconic River. These are the nearest mapped floodplains with sea level rise influence (see Figure 20 in Appendix A of this DEIS). Due to the distance, sea level rise is not expected to impact the subject property.

The potential impacts of climate change and sea level rise on the proposed development are discussed in Section 2.2.2 of this DEIS.

2.2.2 Potential Impacts

Groundwater

The Long Island Comprehensive Waste Treatment Management Plan (208 Study)

As indicated in Section 2.2.1 of this DEIS, the subject property is located within Hydrogeologic Zone III, which is a deep groundwater recharge area. A consistency analysis of the proposed action with the relevant highest priority area wide alternatives for Zone III, as set forth in the *208 Study*, follows.

- *Require nitrogen removal for treatment plants recharging effluent.*

  While the effluent permit limitation is 10 mg/L with respect to drinking water protection under the NYSDEC SPDES permit regulations, the *208 Study* limit was developed to regulate nitrogen loading to Long Island sole source aquifers. The *208 Study* set a goal for the nitrogen loading to the aquifer of 4 mg/L from all sources (wastewater, fertilizers, stormwater recharge), which considers filtration through soils and dilution with recharged stormwater.

  As indicated in Section 1.2.4 of this DEIS and further evaluated later in this section of the DEIS, the proposed development includes a STP that would remove nitrogen from wastewater. The proposed STP would be designed to accommodate 20,000 gallons of wastewater per day and

would treat to a nitrogen effluent concentration of 10 mg/L and a total of 1.67 lbs./day, as follows:

Flow = 20,000 gpd/1,000,000 =0.02 million gallons per day (mgd)
Total Nitrogen Effluent Concentration = 10 mg/L
Total Nitrogen Effluent Quantity = 10 mg/L * 8.34 *0.02 mgd = 1.67 lbs./day

As set forth in the BURBS analysis (see Appendix G), the proposed development would have a total nitrogen concentration of 2.13 mg/L, which is 53 percent of the limit (i.e., 4 mg/L) set forth by the *208 Study*. Accordingly, the proposed action complies with this recommendation.

- *Restrict the use of inorganic, fast-acting fertilizers. Promote the use of low-maintenance lawns.*

  The proposed landscaping plan would also consist of native and/or drought-tolerant plants. The proposed landscape plan would include a variety of trees, including evergreen trees, ornamental trees and shade trees. The proposed landscaping also includes deciduous shrubs and evergreen shrubs, as well as ornamental grasses as well as perennials. As shown on the Landscape Plans (see Sheets C-19 through C-23 in Appendix C of this DEIS), the proposed landscape plantings would be planted along the project site perimeter as well within the landscaped islands within the center drive aisle. The proposed lawn areas would be established within the front, rear and side yards of the proposed development. Inorganic fast-acting fertilizers would not be utilized. The proposed landscaping would be irrigated through a "smart system" which would be installed with a drip line to prevent evaporation as well as rain sensors. Accordingly, the proposed action complies with this recommendation.

- *Control stormwater runoff to minimize transport of nutrients, metals and organic chemicals to groundwaters.*

  As described in Section 1.2.2 of this DEIS and further evaluated in this section of the DEIS, all stormwater would be contained and recharged on-site. The proposed drainage plan consists of a recharge basin, drywells, catch basins and pervious pavers, which have been sized to accommodate a nine-inch storm event which exceeds the 100-year storm event (8.77 inches) requirement set forth in the NYS Stormwater Management Design Manual requirements. Accordingly, the proposed action complies with this recommendation.

Overall, based upon the above analyses, the proposed development plans are consistent with the recommendations set forth in the *208 Study*.

SGPA Plan

The subject property is located within the Central Suffolk SGPA (see Figure 12 in Appendix A of this DEIS). The relevant general SGPA recommendations, the opportunities specific to Central Suffolk SGPA, and the proposed development's consistency therewith, follows.

- *Sewage Treatment Plants – New sewage treatment plants with onsite discharges should be permitted in Special Groundwater Protection Areas subject to the following conditions:*

    - *As a replacement to an existing sewage treatment plant or plants where due to the new siting standards or new operating and discharge standards, it is not feasible to expand and upgrade existing sewage treatment plants.*

  The proposed action includes the construction of an STP to treat wastewater. As noted in the STP Report (see Appendix G of this DEIS), the closest STP to potentially service the proposed action would be the Calverton Sewer District (TSD-04), which is located approximately 1.5 miles from the subject property. This treatment plant serves the EPCAL property and much of the available flow is allocated to EPCAL uses and connection to that plant is not likely. Additionally, this option is cost prohibitive due the required cost to build a force main from the subject property to the existing STP. As such, the proposed action includes the construction of a new modified subsurface STP at the project site. The proposed design would comply with the SCDHS and NYSDEC regulations for siting. The proposed STP and below grade effluent disposal facilities would be constructed in the center of subject property between Building 4 and Building 6. Accordingly, the proposed action complies with this recommendation.

- *Best Management Practices (BMP's) – BMP's would include minimal turf areas surrounding buildings; the use of slow release nitrogen fertilizers; and the use of selected grasses and groundcovers that require minimal fertilization, and are relatively disease free and drought resistant so that irrigation and pesticide uses can be stringently limited.*

  As indicated above, the proposed landscaping plan would consist of native and/or drought-tolerant plants and groundcover to promote water conservation and minimize the need for fertilization to the maximum extent practicable. All landscaped areas would be professionally maintained by a local landscape company, which would be expected to utilize slow release nitrogen fertilizers. The proposed landscaping would be irrigated through a "smart system" which would be installed with a drip line to prevent evaporation as well as rain sensors for unnecessary watering. The system would monitor rainfall, such that during periods of rainfall the irrigation system is not activated to avoid overwatering the landscaped areas and increasing demand on the aquifer. Accordingly, the proposed development would be consistent with the recommended BMP's.

The specific opportunities in the Central Suffolk SGPA relevant to the proposed action are as follows:

- *The Town* [of Riverhead] *has rezoned many acres of industrial land in recent years; however, more could be rezoned, especially in the Calverton area. Most industrial uses in the Town could be concentrated either outside of the SGPA or in the area where existing industries are grouped at the end of the Long Island Expressway where it meets Routes 25 and 58.*

  The subject property is currently zoned Ind C and the proposed action would convert the subject property to the permitted light industrial use (i.e., warehouse and indoor manufacturing). As discussed in Section 1.3.2 of this DEIS, the Town Comprehensive Plan notes the subject property is within an area that would "allow a mix of light industrial and commercial recreation uses in

the area between Enterprise Park and the terminus of the Long Island Expressway." As a proposed light industrial development, the proposed action is consistent with the Town Comprehensive Plan. The proposed development includes an STP to effectively reduce nitrogen loading from sanitary effluent. Also, the proposed landscape plan includes native and/or drought-tolerant species that would be maintained by a licensed professional landscape company. A smart irrigation system with rain sensors would also effectively conserve water resources.

Suffolk County Comprehensive Water Resources Management Plan

The recommendations outlined in the *Suffolk County Comprehensive Water Resources Management Plan* were focused on Nitrogen, VOC's, Pesticides, PCP's and Potable Supply. These recommendations were municipally minded as the recommendations revolved around additional studies, developing new regulations and code changes, public outreach and education and creating a reliable funding stream to fund recommended projects. However, the overall intent of the plan is to reduce the overall levels of contaminants, such as fertilizers, pesticides and nitrogen, in ground and surface waters.

The proposed plan complies with the intent of the *Suffolk County Comprehensive Water Resources Management Plan*, since it incorporates the use of an STP to reduce nitrogen loading from wastewater. The proposed STP would provide treatment to a greater degree than the I/A OWTS systems recommended in the plan. As indicated in the Nitrogen Loading analysis later in this section, the utilization of the proposed STP (at design flow of 20,000 gpd) would result in a nitrogen loading of approximately 1.67 lbs./day. As a comparison, if the development were to be accommodated via conventional or I/A OWTS, at the projected discharge volume (16,506 gpd), the nitrogen loading would be 6.88 lbs./day and 2.61 lbs./day, respectively.

With respect to the landscaped areas, once the landscaped areas are established, the application rate of fertilizer would be reduced to as low as 1.00 lb./1,000 SF. This reduction in application rate would effectively reduce the potential impact of fertilizer in half. If pesticides are required, only registered pesticides would be used and applied by certified applicators. As indicated in the BURBS analysis later in this section, the proposed development would have a total nitrogen concentration of 2.13 mg/L, which is 53 percent of the limit (i.e., 4 mg/L) recommended in the *208 Study*.

Based upon the above analyses, the proposed development plans meet the overall intent of the *Suffolk County Comprehensive Water Resources Management Plan*.

Sanitary Waste Generation and Disposal

Suffolk County Sanitary Code

Article 6 – Single-Family Residences, Realty Subdivisions, Developments and Other Construction Projects

The subject property is located within Groundwater Management Zone III, which is characterized as a deep recharge zone. Pursuant to the regulations contained in Article 6 of the SCSC, the maximum permitted sanitary discharge for the use of on-site sanitary systems is 300 gpd per acre (43,560 SF) or

approximately 9,076 gpd for the 30.25±-acre project site. Pursuant to Section 760-610.C. of Article 6, Modified Subsurface Sewage Disposal Systems (i.e., STPs) are permitted in Groundwater Management Zone III provided all of the following conditions are met:

- the projected sanitary flow is greater than 300 gpd/acre.
- the proposed project, or any portion thereof, is not located within an existing sewer district, or does not have the ability to connect to an existing sewer district.
- the subsoil and groundwater conditions are conducive to the proper functioning of a Modified Subsurface Sewage Disposal System.
- the proposed project is provided with a Community Water System.
- the Modified Subsurface Sewage Disposal System is capable of producing a discharge of no more than 10 mg/L total nitrogen in the effluent stream where the designed Sewage treatment capacity of the system does not exceed 30,000 gallons per day.

Based on the SCDHS design flow factors for General Industrial use (0.04 gpd/SF), the projected sanitary discharge from Phase 1 of the proposed development would be approximately 9,059 gpd. As such, Phase 1 would fully comply with Article 6 of the SCSC. Upon implementation of Phase 2 (year 2025), which includes an additional 186,160 SF, the projected sanitary discharge would increase by approximately 7,447 gpd. Overall, the full development is projected to generate approximately 16,506 gpd of sanitary waste. As such, the proposed action includes the construction of a STP. It is noted that the proposed STP is intended to be over-designed to accommodate a sanitary flow of 20,000± gpd to allow for some flexibility with future tenants.

As noted earlier, the closest STP to potentially service this facility would be the Calverton Sewer District (TSD-04), which is located approximately 1.5 miles from the subject property. This treatment plant serves the EPCAL property and much of the available flow is allocated to EPCAL uses and connection to that plant is not likely. Additionally, this option is cost prohibitive due the required cost to build a force main from the project site to the existing STP. Since the off-site disposal option is not viable, it is proposed to build a new modified subsurface STP.

As indicated on the Overall Site Plan (Sheet C-3 in Appendix C of this DEIS), the proposed STP would be situated in the center of the proposed development along the east side and would be installed during Phase 1 of the construction process. As noted in Section 2.1.1 of this DEIS, soils on the subject property are adequate for the proper functioning of the STP. Furthermore, the depth to groundwater ranges from approximately 40.7 feet bgs (in the southwest portion of the project site) to 57.7± feet bgs (in the northwest corner of the project site), which provides a more than adequate separation distance for the STP leaching field. Regarding water supply, as discussed later in this section of the DEIS, the Applicant has filed for water service from the RWD and the review is pending. It is proposed that all water for domestic use be supplied by the RWD and if required, an irrigation well would be installed to supply irrigation needs on the project site. However, should the RWD not have the ability to service the proposed development, the Applicant has reviewed an alternate method of supply through on-site supply, fire and hydrant wells (see Section 5.3 of this DEIS), which is permitted under Section 760-611 of Article 6.

The proposed STP has a design flow of less than 30,000 gpd and, therefore, falls into the Appendix A STP Standards for construction. The proposed STP would be designed and constructed in accordance with

Article 6 and would also meet the Article 6 - Appendix A, *Standards for Approval and Construction of Modified Sewage Disposal Systems and Small Community Sewerage Systems* ("Appendix A STP Standards"). Pursuant to the Article 6 Appendix A Standards, the minimum separation distances from process tanks and leaching pools to buildings, property lines and surface water:

- 10-foot setback to commercial property lines and buildings.
- 100-foot setback to surface waters or as set by the NYSDEC or local wetlands permit.

The proposed STP and dedicated STP expansion area would be sited on the property at a location that provides a minimum setback distance of 10 feet from the property line and 10 feet from any existing or proposed habitable structure. Furthermore, a buffer area of 10 feet would also be provided around the proposed STP and dedicated expansion area, which would be used exclusively for the STP appurtenances. As indicated in Section 2.2.1 of this DEIS, there are no wetlands or surface water bodies proximate to the project site. As such, the proposed STP complies with the minimum separation distances.

The proposed STP would be a package unit from Purestream, BESST system. The packaged unit is fabricated from 316l grade stainless steel and is provided with integral hatches that cover the entire treatment unit. The treatment unit is typically buried, such that only six to eight inches of the tank are above grade. This prevents any debris and/or stormwater from entering the treatment system.

In addition to the treatment units, a control building would be installed to house the aeration blowers, odor control equipment and the operator's laboratory space within Building 4. The selected process commonly utilized in Suffolk County and long-term operation of these types of systems have demonstrated that effluent meets the NYSDEC SPDES requirements for reduction of nitrogen and suspended solids. Standby power would be designed and installed such that the STP would continue to operate in the event of a primary power failure.

Treated effluent would discharge into an effluent leaching pool groundwater disposal system. Based on preliminary design, the maximum effective depth of the leaching pools would be approximately 18.5 feet. With groundwater at approximately 40 feet bgs, there would be approximately 21.5 feet of separation distance to groundwater which exceeds the SCDHS minimum three-foot separation distance requirement. Also, adequate space has been allocated for the 100 percent expansion of the leaching pools in accordance with SCDHS requirements.

In accordance with SCDHS and NYSDEC regulations, groundwater monitoring wells would be installed both upstream and downstream of the effluent disposal system to monitor groundwater impacts as part of the SPDES permit obtained for the STP. Finally, the proposed STP would be equipped with a dual canister carbon-based odor control system connected to the treatment tanks, pump station, splitter box and influent screen.

An STP siting letter was sent to SCDHS for siting review on December 10, 2020 and a response is pending (see Appendix G of this DEIS). An STP Report has also been prepared by PWGC and is included in Appendix G of this DEIS which sets forth the proposed design of the STP. As indicated in the STP Report, the proposed STP would comply with the current SCDHS nitrogen limits for discharge to the groundwater and in compliance with the effluent limitations included in the SPDES permit. Specifically,

the proposed STP would be designed to produce an effluent with less than 10 mg/L total nitrogen during the average and peak hourly flow rates.

Article 6 also has requirements for water supply that a community water system method of water supply is required when a construction project, or any portion thereof, is: (1) located within an existing water district or service area, (2) reasonably accessible to an existing water district or service area (unless the developer cannot effect arrangements for the installation and/or connection to the water system to the existing water district or service area facilities), and (3) individual wells cannot provide sufficient yield of freshwater meeting Department requirements or standards, groundwaters in the area are non-potable, or potentially hazardous. As noted above, the proposed action includes an extension of the RWD to accommodate water supply for the proposed development. In the absence of an approval for insufficient supply to serve the proposed development, the Applicant has evaluated the installation of on-site supply, fire and hydrant wells (see Section 5.3 of this DEIS), which is permitted under Section 760-611 of Article 6.

Article 7 – Water Pollution Control

Section 760-706 provides additional restrictions for the deep recharge zones and water supply sensitive areas including stringent limitations on toxic and hazardous materials storage and discharge. Pursuant to §760-706(B)(1), it is unlawful to use or store any restricted toxic or hazardous materials on any premises except as follows:

- *The intended use of the product stored is solely for on-site heating, or intermittent stationary power production such as stand-by electricity generation or irrigation pump power;*
- *The facility for such storage is intended solely for the storage of kerosene, number 2 fuel oil, number 4 fuel oil, number 6 fuel oil, diesel oil or lubricating oil;*
- *The facility for such storage is constructed in accordance with the requirements of Article 12 of the Suffolk County Sanitary Code for new construction;*
- *The materials so stored are not industrial wastes from processes containing restricted toxic or hazardous materials; and*
- *The materials stored are not intended for resale.*

As indicated earlier in this section of the DEIS, the subject property is located in a deep recharge area. As such, the storage of any restricted toxic or hazardous materials, as defined in the SCSC, would be regulated by the SCDHS.

Article 12 – Toxic and Hazardous Materials Storage and Handling Controls

Article 12 of the SCSC relates to the storage and handling of toxic and hazardous materials and sets forth design and permitting requirements for facilities that may use such materials. The proposed action would include a backup generator associated with the STP, which would utilize diesel, and serve the STP

in the case of a power failure. The diesel would be stored in an approximately 400-gallon, double walled aboveground storage tank to be installed under the STP emergency generator. As such, an Article 12 permit would be obtained for the backup generator in compliance with the SCSC.

As the proposed uses include light industrial uses, the storage and handling of toxic and hazardous materials by individual tenants may be likely, but the types and volumes cannot be determined until tenants are identified. However, all tenants would be required to comply with Article 12 of the SCSC.

Suffolk County Subwatersheds Wastewater Plan

As described in Section 2.2.1 of this DEIS, the subject property is located outside of the groundwater contributing area to the following surrounding subwatersheds: Peconic River Middle and Tribs; Peconic River Upper and Tribs; and Fresh Pond Creek. Additionally, the SC SWP encourages the use of I/A OWTS and STP's for future development, and thus, the proposed action is consistent with same. Therefore, based on the above, the proposed action is not expected to have a significant adverse impact to those subwatersheds indicated above.

Nitrogen Loading – Mass Balance Calculation

A nitrogen mass balance calculation for the proposed development with the STP has been performed. As a comparative analysis, the use of conventional systems and I/A OWTS systems (only with the purchase of Pine Barrens credits) are also provided.

Development Nitrogen Discharge – Various Treatment Methods

Proposed Development with STP
Flow = 16,506 gpd/1,000,000 =0.0165 mgd
Total Nitrogen Effluent Concentration = 10 mg/L
Total Nitrogen Effluent Quantity = 10 mg/L * 8.34 *0.0165 mgd = **1.37 lbs./day**

Proposed Development with STP at Design Flow
Flow = 20,000 gpd/1,000,000 =0.02 mgd
Total Nitrogen Effluent Concentration = 10 mg/L
Total Nitrogen Effluent Quantity = 10 mg/L * 8.34 *0.02 mgd = **1.67 lbs./day**

Comparative Analyses

Conventional Sanitary Systems
Flow = 16,506 gpd
Total Nitrogen Effluent Concentration (TN) = 50 mg/L
Total Nitrogen Effluent Quantity = 50 mg/L * 8.34 *0.0165 mgd = **6.88 lbs./day**

I/A OWTS Systems
Flow = 16,506 gpd
Total Nitrogen Effluent Concentration (TN) = 19 mg/L
Total Nitrogen Effluent Quantity = 19 mg/L * 8.34 *0.0165 mgd = **2.61 lbs./day**

Based upon the above calculations, the utilization of the proposed STP, at design flow (20,000 gpd), with an effluent of 10 mg/L would result in a nitrogen loading that is approximately 1.67 lbs./day. As a comparison, if the development were to be accommodated via conventional or I/A OWTS at the projected flow (16,506 gpd), the nitrogen loading would increase to 6.88 lbs./day and 2.61 lbs./day, respectively.

For comparative purposes, utilizing a nitrogen mass balance calculation for an as-of-right development with a conventional system renders the following result:

As-of-Right Development – Allowable Sanitary Flow Commercial Site
GWMZ III = 300 gpd/acre

Area = 30.2545 acres
Flow = 30.2545 acres * 300 gpd/acre = 9,076 gpd
Flow = 9,076 gpd (9,076 gpd/1,000,000 = 0.00907 mgd)
Total Nitrogen Effluent Concentration (TN) = 50 mg/L
Total Nitrogen Effluent Quantity = 50 mg/L * 8.34 *0.00907 mgd = **3.78 lbs./day**

Accordingly, the proposed development plan with the STP at a design flow of 20,000 gpd would have less nitrogen loading than other development programs with I/A or conventional systems.

Nitrogen Loading and Impact to Nearby Surface Waters – BURBS Analysis

A model was developed to evaluate the proposed plan and the maximum development alternative plan, which is addressed in Section 5.2 of this DEIS. The particular model utilized was the BURBS model. The parameters utilized in the BURBS model are explained in detail in the BURBS analysis (see Appendix G of this DEIS). The BURBS model takes into consideration, not only the wastewater nitrogen, but impacts from atmospheric deposition, fertilization and runoff from impervious areas.

Since the proposed development would utilize an STP, the amount of nitrogen lost as a gas was increased from the standard level of 0.5 to 0.85 to reflect the reduced nitrogen levels in the treated effluent from the STP as compared to the conventional sanitary system. Additionally, the landscaped areas were conservatively modeled using a fertilizer application rate of 2.04 lbs. /1,000 SF, which is based upon the current accepted loading rates being utilized by Suffolk County. Once the landscaped areas, particularly the grassed areas have been established, the application rate of fertilizer would be reduced to as low as 1.00 lb./1,000 SF. This reduction in application rate would effectively reduce the potential impact of fertilizer in half.

Based upon the analysis of the BURBS model, the estimated amount of nitrogen leached from the proposed development is 685 pounds per year. This nitrogen loading represents a concentration of nitrogen of 2.13 mg/L associated with the proposed project. As noted earlier, the *208 Study* recommended a limit on groundwater nitrogen concentration of 4 mg/L for properties within Hydrogeologic Zone III. Based upon the results of the BURBS model, the proposed development would have a total nitrogen concentration of 2.13 mg/L, which is 53 percent of the limit (i.e., 4 mg/L) set forth by the *208 Study*. Based upon the aforementioned analysis, the proposed nitrogen loading represents an

increase over the existing conditions; however, the increase is significantly below the levels established in the *208 Study* and Article 6 with respect to both wastewater and fertilizer-based nitrogen.

Water Supply and Availability

Domestic and Fire Water System Demand

As indicated earlier in this section of the DEIS, the total projected potable water usage is 16,506± gpd. However, to provide some flexibility with respect to tenant needs, the proposed STP is being designed to accommodate 20,000± gpd. Therefore, the potable water usage would be a flow of 20,000± gpd. Based upon a 10-hour use of the subject property during project operations, 20,000± gpd equates to an average domestic water flow rate of 33 gallons per minute (gpm). Based upon industry standards, the peak domestic water usage demand ranges between two and four times the average flow. Using the average flow of 28 gpm, this would equate to a peak flow range of 66 to 132 gpm. It is noted that the water availability letter sent to RWD (see Appendix I of this DEIS) assumed a 12-hour use of the property per day but the proposed hours of operation has since been modified for a 10-hour use per day.

With respect to the fire service demand for the proposed development, the project engineer reviewed the 2020 NYS Fire Code. According to the project engineer, the proposed building is a Type IIA construction and would be provided with an automatic fire sprinkler system. As such, based on the 2020 NYS Fire Code Table B105.2, the minimum building fire sprinkler flow required is 375 gpm, assuming that the tenant dividing walls are fire rated and the building is Type IIA construction. Water for fire protection to the proposed development would be supplied from the same water distribution system that provides potable water.

The design of the water system and water mains would be capable of handling the water flows and pressure as required by the regulatory agencies (i.e., SCDHS and RWD). As shown on the Sanitary and Utility Plan (see Sheets C-13 through C-18 in Appendix C of this DEIS), an eight-inch diameter water service main is proposed and would connect to the existing 12-inch diameter water main in the RWD distribution system located on Middle Country Road. The proposed water supply system would consist of two services - one, 2.5-inch diameter domestic water service for each of the buildings and one, four-inch diameter service for fire protection. Each service would be provided with a reduced pressure zone (RPZ) backflow prevention device.

Irrigation Water Supply and Distribution System

The estimated volume of irrigation water for the on-site lawn and select planted areas (of approximately 2 acres) is 3,771± gpd during the peak irrigation season (mid-April to mid-October). The approximate 3,771 gpd of irrigation usage is based upon a volume of one-half inch of watering per week for the 2± acres of landscaping (refer to the Water Supply Source Study in Appendix H of this DEIS). It is noted that the 3,771 gpd is based on the 26-week irrigation season, but when averaged annually it equates to 1,881± gpd. The proposed action would include an irrigation system with smart irrigation controls to reduce or eliminate the use of the irrigation system during periods of rain. The irrigation system would be installed with a drip line to prevent evaporation as well as rain sensors so as to not go on while it is raining. The

proposed landscaping plan would also consist of native and/or drought-tolerant plants and groundcover to promote water conservation.

Public Supply Wells – Capacity Analysis

As indicated in Section 2.2.1 of this DEIS, consultations were undertaken by PWGC with the RWD during the preparation of this DEIS. In email correspondence sent January 14, 2021, PWGC requested capacity information from the RWD to evaluate the potential impacts of the proposed development on the public water supply (see Appendix I of this DEIS). PWGC requested the current capacity of all well fields in the RWD, the storage tank capacity and locations, information on all water services within the RWD, including types (i.e. domestic, fire, irrigation) and sizes of those connections, daily pumping records for the last 10 years, and any previous analysis or studies on the capacity of the RWD. In response, the RWD provided the RWD Draft Map and Plan Report.

This report provides a water system description of the RWD including the general service area, supply well facilities, storage facilities, and pumpage and demand, as well as the proposed extension of the RWD into Manorville, located to the southwest of the subject property.

RWD Supply and Storage Facilities

According to the RWD Draft Map and Plan Report, the current pumping capacity of the RWD wells is 13,930 gpm or the equivalent of 20.06 mgd. In addition to the RWD wells, the RWD operates and maintains two (2) elevated steel storage tanks, two (2) ground storage tanks, and two (2) standpipes. Between these facilities, there is a storage capacity of 6.24 million gallons.

The RWD also maintains four interconnections with the Suffolk County Water Authority (SCWA), two (2) of which provide water to the SCWA (the Peconic Boulevard interconnection) and two (2) of which can be used to receive water from the SCWA (the Dogwood Drive and Meroke Trail interconnections). Typically, these interconnections are utilized to meet peak demand and supplement water supplies as needed. The Peconic Boulevard interconnection can provide up to 750 gpm or 1.0 mgd to the SCWA, the Dogwood Drive interconnection can provide up to 800 gpm or 1.15 mgd to the RWD high zone, and the Meroke Trail interconnection can provide up to 500 gpm or 0.72 mgd to the RWD high zone, according to the RWD Draft Map and Plan Report.

RWD Pumpage and Demand

Per the RWD Draft Map and Plan Report, between 2010 and 2019, there was an average annual pumpage rate of 2,637.1 million gallons, an average demand of 8.32 mgd, and a maximum peak demand of 22.53 mgd. Refer to Table 6 in the Water Supply Source Study in Appendix H of this DEIS which depicts the pumpage and demand between 2010 and 2019. Over the course of the 10-year period, the pumpage remained relatively steady, however the RWD anticipates that annual pumpage will increase in the future due to commercial and residential development within the district.

According to the RWD Draft Map and Plan Report., in order to meet the average day demand of future commercial and residential development projects that have submitted requests to the RWD, an estimated 287,000 gpd or 0.287 mgd will be required. The projected peak day demand associated with

these requests is approximately 783,000 gpd or 0.783 mgd using a max-day to average-day ratio of 2.73. This does not include requests for projects with water demands less than 500 gpd, such as a residence or small commercial application.

RWD Proposed Extension

Per the RWD Draft Map and Plan Report, there is a proposed RWD extension (No. 94) to service Manorville, which is located in southwest portion of the Town of Riverhead. The proposed extension is in the high-pressure zone and will provide potable water and fire protection to 62 single family homes, Swan Lake Golf Course, and Suffolk County parklands and commercial properties located along River Road, Line Road, and Grumman Boulevard. The projected demand to serve these properties is 24,400 gpd, assuming all properties in the extension area connect to the public water supply.

Irrigation water for these properties would be expected to be supplied by the private wells that are currently on the individual properties, therefore there is no anticipated water demand for irrigation from the public water supply, according to the RWD Draft Map and Plan Report.

RWD Capacity Analysis

The RWD must comply with the New York State Sanitary Code (NYSSC) Part 5 (Drinking Water Standards) and the Ten States Standards for Water Works (TSSWW), as they are part of the NYSSC. As such, the current and future supply and storage capacity needs of the RWD were analyzed in the RWD Draft Map and Plan Report. See Table 11 below for the RWD capacity analysis parameters (also included as Table 7 in the Water Supply Source Study in Appendix H of this DEIS).

Table 11 – RWD Capacity Analysis Parameters

Parameter	**Demand/Capacity**
Maximum Average Day (between 2010 and 2019)	8.32 MGD (2015)
Maximum Peak Day (between 2010 and 2019)	22.53 MGD (2010)
Peak Hour Demand (Estimated)	1.45 MG (2020)
Maximum Peak Day plus Fireflow[1]	23.16 MGD (2010)
Future Average Demand	0.278 MGD
Future Peak Demand	0.783 MGD
Future Maximum Peak Day	23.313 MGD
RWD Current Capacity	20.06 MGD
RWD Approved Pumping Capacity per NYSDEC	24.034 MGD
RWD Peak Hour Capacity	0.8358 MG (13,930 GPM)
RWD Largest Well	2.3 MGD (Well No. 16)
RWD Current Capacity with Largest Well Out of Service[2]	17.76 MGD
Capacity Increase with Approved Pending Applications as NYSDEC	2.42 MGD (1,680 GPM)
[1] Fireflow rate of 3,500 GPM for 3-hours.	
[2] In accordance with TSSWW, the largest well is assumed to be out of service in order to perform the capacity analysis.	

Based on the information in Table 11 above, the RWD has the capacity to meet the maximum average daily demand (8.32 mgd) with the largest well out of service (17.76 mgd) and without utilizing storage or interconnections. The RWD does not have the capacity to meet the maximum peak daily demand (22.53 mgd) with the largest well out of service (17.76 mgd) and would rely on the full capacity of the interconnections and storage. This deficit would be further reduced upon approval of the pending applications at the NYSDEC (20.18 mgd to be supplied by wells with the remainder from interconnections and storage). The RWD does not have capacity to meet the peak hour demand (1.45 million gallons) with the largest well out of service and accounting for interconnections and storage. This deficit would be eliminated upon approval of the pending applications at the NYSDEC. The RWD does not have capacity to meet the maximum peak day plus fireflow (23.16 mgd) with the largest well out of service (17.76 mgd). This deficit would be further reduced upon approval of the pending applications at the NYSDEC. To overcome this deficit the RWD would rely on the capacity of the interconnections and storage.

According to the RWD Draft Map and Plan Report, to address the deficits referenced above, the RWD is actively addressing new sources of water and storage.

RWD Capacity Analysis with Proposed Development

The Water Supply Source Study analyzed the proposed development at peak demand and provides a conservative estimate of total water demand for the proposed action. As such, based on the conservative estimates of the Water Supply Source Study, the proposed development is anticipated to utilize 25,000 gpd (0.025 mgd) of potable water, six (6) days per week, with building occupancies anticipated to be at 50 percent for the sixth day. Between April and October of each year, the proposed development is anticipated to utilize an additional 3,771 gpd (0.0037 mgd) of water for irrigation, 7 days per week. In total, the project site would have a peak demand of 28,771 gpd (0.028 mgd) once Phase 1 and Phase 2 are both completed. Phase 1 is anticipated to be completed by 2023 and would have a peak demand of 19,462 gpd (0.019 mgd) (including the water for irrigation) and Phase 2 is anticipated to be completed in 2025 and would have a peak demand of 9,309 gpd (0.009 mgd). Therefore, the proposed development would not have a peak demand of 28,771 gpd (0.028 mgd) until 2025.

The RWD would have capacity to supply water to the subject property on projected average daily demands (8.626 mgd which includes future developments that have submitted applications to the RWD, as well as the proposed development). However, the RWD would not have capacity to supply water to the subject property on the projected maximum peak daily demands (23.341 mgd which includes future developments that have submitted applications to the RWD, as well as the proposed development). Similarly, the RWD would not have capacity to supply water to the subject property on the projected maximum peak daily demand plus fireflow (23.971 mgd which includes future developments that have submitted applications to the RWD, as well as the proposed development). To overcome these capacity deficits for the projected future demands, the RWD would have to rely on interconnections and storage, as well as approval of the pending applications with the NYSDEC.

Based on consultations with the RWD, water supply to the subject property for the proposed project would be possible with future planned infrastructure projects inclusive of new storage and supply wells. It is noted that the Water Supply Source Study is expected to be used and incorporated into a larger Map and Plan report being prepared by RWD for several development projects in Calverton. It is anticipated

that an impact fee or tax levy may be imposed for the completion of the future planned infrastructure projects. It is noted, however, that in the event such projects are not implemented by RWD, the feasibility of water supply via on-site supply wells has been evaluated as an alternative and is included in Section 5.3 of this DEIS.

Public Supply Wells – STP Analysis

With respect to evaluating the impact of a proposed STP on public wells the SCDHS provides guidance on determining the possible impact. The SCDHS provides Guidance Memorandum #28, Siting of a Sewage Treatment Plant, which requests nitrogen mass balance calculations to be performed when a proposed STP falls within a 2-50 year groundwater contributing area to public water wellfields. For this project, the proposed development falls within the 100-year groundwater contributing area to RWD's Plant 16 well field. The STP siting report prepared for the proposed action indicated that the proposed nitrogen mass loading from the STP at design flow is 1.67 lbs./day compared to the 3.78 lbs./day for the as-of-right development, or a 44 percent reduction (see Appendix G of this DEIS). Given that the SCDHS standards for as-of-right development were developed to protect groundwater and drinking water from nitrogen impacts, and since the proposed nitrogen loading is substantially less than the as-of-right, it can be concluded that the proposed action would not have a significant adverse impact on the public supply wells.

Private Wells – On and Nearby Off-Site Wells

As noted in Section 2.2.1 of this DEIS, SCDHS requires, as part of Guidance Memorandum #28, Siting of a Sewage Treatment Plant, that a search for private wells within a 500-foot radius of the subject property be conducted. Four (4) properties within the 500-foot radius, north of the subject property, are not connected to public water. Of the four (4) properties, it appears that all four lots are undeveloped and three (3) of the four (4) appear to be actively farmed, as noted in Section 2.2.1 of this DEIS. It is also noted that based on a review of the water wells provided by the NYSDEC, none of the 29 wells are located within the 500-foot radius (see Figure 13 in Appendix A of this DEIS). As indicated in Section 2.2.1 of this DEIS, groundwater flow in this area appears to flow northeast towards the Long Island Sound. As such, based on the above information, the proposed STP-would not have any significant adverse impacts on private wells.

Stormwater Runoff and Drainage

It is expected that the volume of stormwater runoff generated on the subject property would increase upon implementation of the proposed action as a result of the development of new buildings, associated surface parking stalls and loading docks, asphalt pavement areas for site circulation, and other impervious surfaces. The proposed drainage plan for the project has been designed and would be installed in accordance with the Town of Riverhead and NYSDEC SWPPP requirements. Specifically, the proposed drainage plan consists of a recharge basin, drywells, catch basins and pervious pavers, which have been sized to accommodate a nine-inch storm event which exceeds the 100-year storm event (8.77" over a 24-hour period) (see Overall Grading and Drainage Plan, Sheet C-8 in Appendix C of this DEIS).

As shown in

Table 9 above, the subject property currently generates approximately 43,929 CF of stormwater runoff, based on a two-inch rainfall event. Based on data provided by the project engineer, stormwater generation would increase upon implementation of the proposed development to approximately 172,304 CF during a two-inch rain event (see Table 12 below).

Table 12 – Proposed Stormwater Runoff Generation

	Proposed Site Coverage		**Coefficient**	**Rainfall**	**Proposed Volume (CF)**
	Acres	SF		2"	
Impervious	21.50±	936,645±	1[1]	(2/12)	156,108± CF
Pervious	7.79±	339,389±	0.2[2]	(2/12)	11,313± CF
Pervious Pavers	0.96±	41,850±	0.7	(2/12)	4,883± CF
TOTAL	**30.25±**	**1,317,884±**			**172,304± CF**

Notes: [1] – Buildings, pavement, roof, concrete and other impervious areas
[2] - Landscaped, grassed, natural or other pervious surfaces

As noted on the Overall Grading and Drainage Plan in Appendix C of this DEIS, the proposed design considers the 100-year storm event, or 8.77 inches over a 24-hour period. Based on analysis of the proposed site plan, the required volume for the entire project site is 299,631 CF (see the Stormwater Engineering Report within the SWPPP Report in Appendix E of this DEIS). The proposed recharge basin and 82 drywells provide a volume of 316,526 CF, which is greater than the required 299,631 CF. Overall, the proposed drainage design is capable of accommodating nine-inches over a 24-hour period. It is further noted that percolation tests were performed by Slacke Boring Co. in February 2021, which indicated that on-site soils have adequate drainage capacity (see Appendix J of this DEIS).

Town of Riverhead Stormwater Management Requirements

Chapter 257 of Town Code – Stormwater Management and Erosion and Sediment Control

As noted in Section 2.2.1 of this DEIS, Chapter 257 of the Town Code regulates stormwater management and discharge associated with land-disturbing activities equal to or greater than one acre, or activities disturbing less than one acre of total land area that is part of a larger common plan of development. The performance standards for stormwater management, as set forth in §275-7, and consistency of the proposed plans therewith are evaluated below.

A. Technical standards. For the purpose of this chapter, the following documents shall serve as the official guides and specifications for stormwater management. Stormwater management practices that are designed and constructed in accordance with these technical documents shall be presumed to meet the standards imposed by this chapter:

(1) The New York State Stormwater Management Design Manual (New York State Department of Environmental Conservation, most current version or its successor, hereafter referred to as the "Design Manual").

(2) New York Standards and Specifications for Erosion and Sediment Control (Empire State Chapter of the Soil and Water Conservation Society, 2004, most current version or its successor, hereafter referred to as the "Erosion Control Manual").

As part of the SWPPP, the stormwater management plan and the Soil Erosion and Sediment Control Plan have been developed and designed in accordance with the standards and specifications of the NYSDEC's *New York State Stormwater Design Manual* (2015) and *New York Standards and Specifications for Erosion and Sediment Contro*l*, Blue Book* (November 2016). The proposed action would be consistent with this provision of the Town Code.

B. Equivalence to technical standards. Where stormwater management practices are not in accordance with technical standards, the applicant or developer must demonstrate equivalence to the technical standards set forth in § 149-6A and the SWPPP shall be prepared by a licensed professional.

It is expected that the proposed development would be designed to meet all technical standards regarding stormwater management practices. The SWPPP has been prepared by a licensed professional. As such, the proposed action is consistent with this provision.

C. Water quality standards. Any land development activity shall not cause an increase in turbidity that will result in substantial visible contrast to natural conditions in surface waters of the State of New York.

As indicated in Section 2.2.1 of this DEIS, the nearest surface water bodies are State regulated freshwater wetlands and NWI freshwater ponds located at approximately 0.35-mile and 0.41-mile west of the project site; 0.78-mile, 0.87-mile, 0.91-mile southwest of project site; 0.87-mile and 1.23 miles southeast of the project site; and 1.16 miles south of the project site (see Figure 17 in Appendix A of this DEIS). The proposed action would implement the prepared SWPPP and a comprehensive stormwater management system such that all stormwater runoff would be collected and recharged on-site. The prepared Soil Erosion and Sediment Control plan (see Sheet C-30 in Appendix C of this DEIS) would also be implemented in which erosion and sedimentation controls would be undertaken prior to and during construction and would include, at minimum, stockpile protection, minimizing the extent and duration of exposed areas, stabilizing exposed areas, inlet sediment control devices for storm structure protection, silt fencing, and a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles. Thus, the proposed action is not expected to cause an increase in turbidity that would result in substantial visible contrast to natural conditions in surface waters of the State of New York.

Supplemental Guidelines for Industrial C Zoning District

As indicated in Section 2.2.1 of this DEIS, Section 301-124B.(5) of the Town Code sets forth supplementary guidelines for stormwater management in the Ind C Zoning District. The supplementary guidelines for stormwater management and consistency of the proposed plans therewith are evaluated below.

In order to provide recharge of the groundwater basin and minimize runoff, at least one of the following stormwater management techniques shall be used in parking lots where underlying soils support infiltration of precipitation to the groundwater:

(c) Where sanding and salting are not used in the winter, low-traffic or seasonal parking overflow areas of the parking lot shall be surfaced with porous pavement or gravel.

(d) Landscaped areas of the parking lot shall be sited, planted, and graded in a manner to provide infiltration and detention of runoff from paved areas.

All landscaped areas within the center drive aisle would be graded and planted in a manner that provides infiltration and detention of runoff from the paved parking areas. It is also noted that pervious pavers in between each set of buildings have been incorporated into the proposed design. It is further noted that percolation tests were performed which indicated that on-site soils have adequate drainage capacity (see Appendix J of this DEIS). Overall, the proposed drainage design is capable of accommodating stormwater runoff from the proposed parking areas.

Based upon the above analyses, the proposed development is consistent with Chapter 257 of the Town Code and the supplementary guidelines for development in the Ind C zoning district.

SPDES General Permit for Stormwater Discharges from Construction Activity

The SPDES General Permit (GP-0-20-001, current version) requires that a SWPPP be prepared for the proposed development and such SWPPP is to include a detailed erosion and sediment control plan to manage stormwater generated on-site during construction activities, as well as for post-construction stormwater management. In accordance with said regulations, a SWPPP has been prepared (see Appendix E of this DEIS) to ensure compliance with erosion and sediment control practices set forth in the NYSDEC's *New York Standards and Specifications for Erosion and Sediment Control, Blue Book* (November 2016). A Soil Erosion and Sediment Control Plan has been prepared (see Sheet C-30 in Appendix C of this DEIS), which includes, at minimum, stockpile protection, minimizing the extent and duration of exposed areas, stabilizing exposed areas, inlet sediment control devices for storm structure protection, silt fencing, and a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles. As noted in Section 1.4.1 of this DEIS, the Applicant sought approval from the NYSDEC to permit the disturbance of greater than 5 acres at any one time. The NYSDEC authorized the construction phasing as proposed in correspondence dated July 15, 2020 (see Appendix E of this DEIS).

As the proposed development would generate site run-off in an area of soil disturbance greater than five (5) acres from the proposed construction activity, the SWPPP has been prepared to ensure compliance with the water quality and quantity requirements and design standards set forth in the *New York State Stormwater Management Design Manual* (2015). As described in this section of the DEIS above, the proposed action would utilize a recharge basin on the southern portion of the subject property to capture and temporarily store all stormwater runoff from the project site before infiltrating to the underlying soils. As demonstrated above, the recharge basin would be sized to accommodate a 100-year storm event complying with the SPDES GP-0-20-001.

Furthermore, the dimensions, materials and installation details for post-construction stormwater control practices are shown on the Overall Grading & Drainage Plan (see Sheet C-8 in Appendix C of this DEIS) and the Overall Soil Erosion and Sediment Control Plan (Sheet C-30 in Appendix C of this DEIS) as required by the SPDES permit. As indicated in the SWPPP Report (see Appendix E of this DEIS), the hydrologic and hydraulic analysis for the structural components of the stormwater control system for applicable design storms are included in Appendix IV (Engineer's Report) of the SWPPP Report. Also, as indicated in the SWPPP Report, the Total Channel Protection Storage Volume (CPv), Total Overbank Flood Control (Qp) and Total Extreme Flood Control (Qf) requirements are in conformance with Sections 4.4 through 4.6 of the Stormwater Design Guidelines, as the ultimate discharge point is an on-site recharge basin and subsurface drywells. Overall, the prepared SWPPP has been designed to ensure compliance with the water quality and water quantity requirements of the SPDES GP-0-20-001.

New York State Stormwater Management Design Manual

As noted in Section 2.2.1 of this DEIS, the *New York State Stormwater Design Manual* provides structural standards for SMPs that are acceptable for stormwater management and water quality treatment. In accordance with the performance standards and SMPs of this manual, the proposed action would utilize a recharge basin on the southern portion of the subject property to capture and temporarily store all stormwater runoff from the project site before infiltrating to the underlying soils. As demonstrated above, the recharge basin would be sized to accommodate a 100-year storm event. Furthermore, as mentioned above in this section, a SWPPP has been prepared for the proposed action in accordance with the design standards of the *New York State Stormwater Design Manual.*

New York State Standards and Specifications for Erosion and Sedimentation Control (Blue Book)

As noted in Section 2.2.1 of this DEIS, the *New York State Standards and Specifications for Erosion and Sedimentation Control, Blue Book* (November 2016) provides standards and specifications for erosion and sediment control practices for the development of Erosion and Sediment Control Plans as part of the SPDES General Permit. A Soil Erosion and Sediment Control Plan has been prepared (see Sheet C-30 in Appendix C of this DEIS). As part of the prepared SWPPP, the proposed action includes the following erosion and sediment controls:

- Installation of a perimeter silt fence.
- Installation of a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles.
- Identification of the soil stockpile storage and construction staging areas.
- Application of dust control measures.
- Installation of temporary run-off and drainage control.
- Installation of material stockpile perimeter controls and stabilization.
- Installation of inlet sediment control devices for storm structure protection.
- Stabilization of exposed areas.
- Minimization of the extent and duration of exposed areas.

All erosion and sediment control measures would be routinely inspected and maintained such that no sediment would be transported off-site. These erosion and sedimentation controls would minimize the potential impacts associated with site development and construction activities to ensure proper function.

Nationwide Urban Runoff Program (NURP Study)

The relevant recommendations from the NURP Study, as it pertains to stormwater runoff for the protection of groundwater and surface water resources, are as follows along with the proposed project's consistency therewith.

Groundwater Recommendations:

- *Continue to use recharge basins wherever feasible for the disposal of stormwater and the replenishment of the groundwater.*

  The proposed stormwater management system includes the construction of a recharge basin along the southern portion of the subject property. In addition to the proposed recharge basin, the proposed comprehensive stormwater management system would include drywells, catch basins and pervious pavers throughout the project site to manage stormwater runoff, filter pollutants associated with runoff from impervious surfaces, and increase rainwater infiltration. Based on the above, the proposed action is consistent with this recommendation.

- *Avoid maintenance practices that would interfere with the natural revegetation of basins by grasses and shrubs.*

  As shown on the Landscape Plan (see Sheet C-23 in Appendix C of this DEIS), the proposed recharge basin would be seeded with groundcover and maintained only to the extent required for adequate retention and recharge.

- *Consider the use of in-line storage leaching drainage systems, or components thereof, as a substitute for recharge basins in areas, other than parking lots, where maintenance will be assured and where the value of the land for development purposes is greater than the cost of installing and maintaining the underground system. Storage leaching drainage systems should also be considered for use where the installation of recharge basins is not feasible.*

  As noted above, the stormwater management system includes the use of drywells and catch basins to assist in infiltration of stormwater into the ground. Additionally, pervious pavers would be constructed in between each set of buildings to allow for stormwater to be directly recharged from these areas. Upon completion of the proposed development, all elements of the stormwater management system would be properly maintained in accordance with this recommendation.

- *Prevent illegal discharges to drainage systems or recharge basins. Such discharges, which often result from improper storage or deliberate dumping or chemicals, must be controlled at the source.*

  The proposed drainage system has been designed in accordance with prevailing regulations, specifically, Chapter 257 of the Town Code, Section 301-124B.(5) of the Town Code (supplementary guidelines for development in the Ind C zoning district) and the *New York State Stormwater Management Design Manual* requirements. The proposed action would not involve any illegal discharges to the proposed drainage system or recharge basin. As indicated above in this section of the DEIS, all tenants would be required to comply with Article 12 of the SCSC as it regulates the storage and handling of toxic and hazardous materials for the protection of groundwater quality. As the proposed uses include light industrial uses, the storage and handling of toxic and hazardous materials may be likely, but the types and volumes cannot be determined until tenants are identified. No illegal discharges associated with the improper storage of chemicals would be expected as all tenants would be required to comply with Article 12 of the SCSC. As such, the proposed action is consistent with this recommendation.

Surface Water Recommendations:

- *Preclude any additional direct discharge of stormwater runoff into surface waters, using all available means for detention and/or recharge to reduce bacterial loads.*

  There are no surface waters or natural waterbodies located on or directly adjacent to the project site. As described above, all stormwater would be captured and recharged on-site and there would be no direct discharge of stormwater runoff into surrounding surface waters. As such, the proposed action complies with this recommendation.

- *Protect stream corridors from encroachment, so that the stream reaches that will become dry because of the lowering of the water table due to sewering will always be available for stormwater detention and recharge.*

  The subject property does not contain, nor is it located adjacent to any stream corridors. Thus, this recommendation is not applicable.

Nonpoint Source Management Program

The relevant recommendations provided in the Nonpoint Source Management Handbook were reviewed and a discussion of the proposed project's consistency therewith follows:

Chapter One - Land Use

- *Limit the removal of natural vegetation and the creation of lawn areas.*

  Implementation of the proposed action would involve the clearing of the entire 30.25-acre project site which currently consists of 13.83± acres of woodlands and forested areas as well as 16.42± acres of meadows and brushlands. However, 7.79± acres of lawn and landscaped areas

would be installed with native and/or adaptive, low-maintenance and drought tolerant species. The proposed landscape plan would include a variety of trees, including evergreen trees, ornamental trees and shade trees. The proposed landscaping also includes deciduous shrubs and evergreen. The proposed landscaping includes ornamental grasses as well as perennials. As shown on the Landscape Plans (see Sheets C-19 through C-23 in Appendix C of this DEIS), the proposed landscape plantings would be planted along the project site perimeter as well within the landscaped islands within the center drive aisle. The proposed lawn areas would be established within the front, rear and side yards of the proposed development.

It is also noted that 23.19 percent of the landscaped areas would be contiguous landscaping and open space. Overall, the proposed landscape plan provides for visual buffers from surrounding parcels and the Middle Country Road corridor and management would include a fertilizer application rate of 1.00 lb./1,000 SF. This reduction in application rate would effectively reduce the potential impact of fertilizer in half. If pesticides are required, only registered pesticides would be used and applied by certified applicators.

- *Minimize nitrate loadings to groundwater and surface waters by requiring natural vegetative controls to limit lawn areas, thereby decreasing fertilizer use.*

  As shown on the Overall Landscape Plan (see Sheet C-19 in Appendix C of this DEIS), the proposed project would incorporate low-maintenance, native plant species for landscaping. Once the landscaped areas, particularly the grassed areas have been established, the application rate of fertilizer would be reduced to as low as 1.00 lb./1,000 SF. This reduction in application rate would effectively reduce the potential impact of fertilizer in half. If pesticides are required, only registered pesticides would be used and applied by certified applicators.

<u>Chapter Two – Stormwater Runoff</u>

As excerpted from the Recommendations section of Chapter Two (pages 33-36), the following are recommendations relevant to the site planning and design of a stormwater management system:

- *Minimize grade changes and site clearing.*
- *Retain native vegetation on steep slopes, in swales, on excessively drained sandy-gravelly soils, on soils with a high content of silts, fine sands and clays, and in areas with a high-water table or adjacent to surface waters.*
- *Avoid the use of paved surfaces such as parking lots and roadways where the presence of the following conditions indicate potential problems:*
  - *Severely sloped terrain;*
  - *Flood plain areas;*
  - *Existing swales;*
  - *Lowland areas;*
  - *Depressions, kettleholes; and*
  - *Soil constraints listed as severe or moderate.*
- *Incorporate the following general stormwater controls checklist into the site design as needed:*
  - *Use swales and shallow depressions to collect stormwater on-site, wherever possible.*

- *Provide temporary on-site areas to receive stormwater runoff flows that are generated by construction and other site development activities.*
- *Do not allow increased sediment resulting from construction or operational phase of site development to leave the site or to be discharged into stream corridors, marine or freshwater wetlands.*
- *Do not allow the dumping or filling of excess soil or other materials generated from site development into swales and surface waters.*
- *Minimize the amount of soil area exposed to rainfall and the period of exposure. Cover or plant exposed soils as soon as possible.*

Upon implementation of the proposed action, as the subject property includes varied topography primarily in the northeast and western portions of the project site, the proposed grading program and design would result in the modifications of slopes to achieve a level building area. In accordance with the above recommendations, a Grading and Drainage Plan has been prepared (see Sheet C-8 through Sheet C-12 in Appendix C of this DEIS). Subsurface leaching structures and a network of catch basins and drywells would be installed and distributed throughout the subject property to collect stormwater runoff from impervious areas. Stormwater runoff would be conveyed to the recharge basin to be constructed along the southern portion of the subject property to detain runoff and reduce contaminant loadings before recharge to groundwater. It is also noted that percolation tests were performed which indicated that on-site soils have adequate drainage capacity (see Appendix J of this DEIS).

Sedimentation and erosion control measures would be employed during construction in accordance with the Soil Erosion and Sediment Control Plan that has been prepared (see Sheet C-30 in Appendix C of this DEIS). As indicated on the Soil Erosion and Sediment Control Plan, erosion and sedimentation controls would be undertaken prior to and during construction and would include, at minimum, stockpile protection, minimizing the extent and duration of exposed areas, stabilizing exposed areas, inlet sediment control devices for storm structure protection, silt fencing, and a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles. All erosion and sediment control measures would be routinely inspected and maintained such that no sediment would be transported off-site. These erosion and sedimentation controls would minimize the potential impacts associated with site development and construction activities to ensure proper function.

The following are recommendations relevant to stormwater management during site development (pages 43-52):

<u>Natural Vegetation</u>

- *Use natural vegetation as an important nonstructural alternative in the control of stormwater runoff and erosion/sedimentation.*
- *Stabilize exposed slopes during and after construction, by using temporary and/or permanent, structural or nonstructural stabilization measures.*

<u>Drainage Channels</u>

- *Use man made swales and other types of drainage channels to carry and recharge stormwater.*

Biofiltration Systems

- *Use a biofiltration system to detain runoff and reduce contaminant loadings.*

In-line Storage

- *Use an in-line storage system for the collection of stormwater runoff from parking lots and roadways.*

Permeable Paving

- *Use permeable paving for patios and walkways to reduce the volume of stormwater runoff by increasing infiltration to the ground below, thus allowing for recharge of the aquifer.*

Soil and Slope Stabilization Measures

- *Use stabilization techniques to prevent erosion.*

Upon implementation of the proposed action, as the subject property includes varied topography primarily in the northeast and western portions of the project site, the proposed grading program and design would result in the modifications of slopes to achieve a level building area. A Grading and Drainage Plan has been prepared (see Sheet C-8 through Sheet C-12 in Appendix C of this DEIS). Subsurface leaching structures and a network of catch basins and drywells would be installed and distributed throughout the subject property to collect and recharge stormwater runoff from impervious areas. Downspouts would be used to convey stormwater runoff from roofs to the leaching structures. Drywells would be installed along each side of the proposed buildings, including within the center drive aisle and parking areas, and in between each set of buildings. Catch basins would be installed along curb inlets to divert stormwater into the system of drywells. A single recharge basin would also be created to detain runoff and reduce contaminant loadings before recharge to groundwater. The recharge basin would be located along the southern portion of the project site and has been designed to accommodate a nine-inch storm event which exceeds the 100-year storm event (8.77 inch rainfall over a 24-hour period) requirement pursuant to the Town of Riverhead and the *New York State Stormwater Management Design Manual* requirements. The recharge basin would be seeded with groundcover as shown on the Landscape Plan (see Sheet C-23 in Appendix C of this DEIS).

The proposed action would clear the entire 30.25-acre project site which currently consists of 13.83± acres of woodlands and forested areas as well as 16.42± acres of meadows and brushlands. However, 7.79± acres of lawn and landscaped areas would be installed with native and/or adaptive, low-maintenance and drought tolerant species. It is also noted that 23.19 percent of the landscaped areas would be contiguous landscaping and open space. The proposed development would also incorporate approximately 0.96 acre of pervious pavers in between each set of buildings. Based on the above, the proposed action would be consistent with the above recommendations for stormwater management during site development.

Chapter Three - On-Site Systems

- *Follow County Health Department guidelines.*

The proposed STP would be designed and installed with all appropriate standards, regulations, and guidelines of the SCDHS. As such, the proposed action would be consistent with this recommendation.

Chapter Five – Fertilizer

- *Retain as much of the natural vegetation of the site as possible. Minimize grade changes and site clearing.*

The proposed grading program and design would result in the modifications of slopes to achieve a level building area as the subject property includes varied topography primarily in the northeast and western portions of the project site. The proposed action would clear the entire 30.25-acre project site which currently consists of 13.83± acres of woodlands and forested areas as well as 16.42± acres of meadows and brushlands. However, 7.79± acres of lawn and landscaped areas would be installed with native and/or adaptive, low-maintenance and drought tolerant species. It is also noted that 23.19 percent of the landscaped areas would be contiguous landscaping and open space. The proposed landscape plan would include a variety of trees, including evergreen trees, ornamental trees, and shade trees. The proposed landscaping also includes deciduous shrubs and evergreen shrubs. The proposed landscaping includes ornamental grasses as well as perennials. As shown on the Landscape Plans (see Sheets C-19 through C-23 in Appendix C of this DEIS), the proposed landscape plantings would be planted along the project site perimeter as well as within the landscaped islands in the center drive aisle. The proposed lawn areas would be established within the front, rear and side yards of the proposed development.

- *Use native plants for the planting of areas that have been disturbed by grading. Consider the use of alternative types of groundcover and other plant materials to avoid or reduce lawn area and the consequent need for fertilizer applications, extensive watering and maintenance.*

As provided by the project ecologist and discussed in Section 2.3.3 of this DEIS, the species listed on the Landscape Plan (see Sheet C-19 in Appendix C of this DEIS) include only native and/or adaptive, low-maintenance and drought tolerant species, which would reduce the need for fertilizer application, irrigation, other nutrient inputs and other maintenance. As noted in this section of the DEIS above, once the landscaped areas, particularly the grassed areas have been established, the application rate of fertilizer would be reduced to as low as 1.00 lb./1,000 SF. This reduction in application rate would effectively reduce the potential impact of fertilizer in half. If pesticides are required, only registered pesticides would be used and applied by certified applicators. As such, the proposed action is consistent with this recommendation.

Wetlands and Surface Waters

As indicated in Section 2.2.1 of this DEIS, the nearest surface water bodies are State regulated freshwater wetlands and NWI freshwater ponds located at approximately 0.35-mile and 0.41-mile west of the project site; 0.78-mile, 0.87-mile, 0.91-mile southwest of project site; 0.87-mile and 1.23 miles southeast of the project site; and 1.16 miles south of the project site (see Figure 18 in Appendix A of this DEIS). According to the USFWS NWI, there are five (5) farmed wetlands (non-freshwater), approximately 0.28-mile, 0.45-mile, 0.56-mile and 0.60-mile to the northeast of the subject property. The NWI also depicts one freshwater pond located 0.65-mile to the northeast of the subject property. However, these surface water bodies, including the freshwater pond, are not regulated by the NYSDEC. As evaluated by the project engineer, the southern portion of the subject property (approximately 4.49 acres) is located within the boundaries of the Peconic Estuary Watershed, noted in Section 2.2.1 of this DEIS, and illustrated on Figure 18 in Appendix A of this DEIS.

The proposed action would comply with all required provisions of Article 6, Article 7, and Article 12 of the SCSC. The proposed development also includes the installation and utilization of a STP which would reduce nitrogen loading from wastewater on the project site and would be developed and designed in accordance with all SCDHS standards and regulations. The proposed stormwater management system would also comply with the Town's and NYSDEC's stormwater regulations during and after construction. The stormwater drainage system has been designed to fully retain a nine-inch rainfall on-site, without the need for off-site discharge. The proposed action would also comply with the CCMP 2020, as described below. Overall, the proposed action would not have any significant adverse impacts to wetlands and surface waters.

Peconic Estuary Comprehensive Conservation and Management Plan, 2020

As discussed in Section 2.2.1 of this DEIS, the CCMP 2020 identifies four goals, each with corresponding objectives and actions for protection of the Peconic Estuary. The four goals of the CCMP 2020 include strong partnerships and engagement, resilient communities prepared for climate change, clean waters for ecosystem health and safe recreation and healthy ecosystem with abundant, diverse wildlife. As noted above, only 4.49 acres of the southern portion of the subject property is located within the boundaries of the Peconic Estuary Watershed. With respect to the impacts to the Peconic Estuary, the proposed development has been evaluated for impacts associated with increased nitrogen loading, pesticide application, and stormwater discharges; all of which are contributing factors to the quality of the Peconic Estuary.

As indicated in this section of the DEIS above, the projected nitrogen loading represents an increase over the existing conditions; however, the increase is significantly below the levels established in the *208 Study* and Article 6. While this alone represents a benefit to the groundwater and surface water, via a point source reduction in nitrogen loading, the location of the proposed STP also helps further reduce its impact on surface waters. The STP is proposed to be located in the central portion of the subject property, outside the Peconic Estuary Watershed boundary to maximize the distance to nearby surface waters. As mentioned earlier in Section 2.2.1 of this DEIS, the project site is not within any contributing area to surface waters and is not within the capture zones for the Peconic Estuary subwatersheds.

As stated in this section of the DEIS above, management of the landscaped areas would include a fertilizer application rate of 1.00 lb./1,000 SF. This reduction in application rate would effectively reduce the potential impact of fertilizer in half. If pesticides are required, only registered pesticides would be used and applied by certified applicators and would be limited to the impacted areas. The proposed development would also utilize licensed professionals for landscape maintenance.

The proposed stormwater management system would also comply with the Town's and the NYSDEC's stormwater regulations during and after construction. The stormwater drainage system has been designed to fully retain a nine-inch rainfall on-site, without the need for off-site discharge. In addition, a Soil Erosion and Sediment Control Plan and a SWPPP have been developed to control stormwater during construction of the proposed development.

Overall, based on the above, no significant adverse impacts to the Peconic Estuary Watershed are expected.

Floodplains

As indicated in Section 2.2.1 of this DEIS, the subject property is not located within the 100-year or 500-year flood zones (see Figure 19 in Appendix A of this DEIS). As such, no significant adverse flooding impacts would be expected.

Climate Change

Sea Level Rise

As indicated in Section 2.2.1 of this DEIS, the subject property is approximately 2.5 miles south of the Long Island Sound and 4.4± miles northwest of the Peconic River. These are the nearest mapped floodplains with sea level rise influence (see Figure 20 in Appendix A of this DEIS). Due to the distance, sea level rise is not expected to impact the proposed action. As such, no significant adverse impacts as a result of climate change are anticipated.

2.2.3 Proposed Mitigation

No significant adverse impacts to water resources have been identified, and thus, mitigation is not required. A summary of the measures included in the proposed project that effectively minimize or eliminate any potential adverse impacts follows:

- The proposed action includes the construction of a STP to accommodate all sanitary waste from the development. The proposed BESST system has demonstrated that effluent meets the NYSDEC SPDES requirements for reduction of nitrogen and suspended solids. Adequate space has also been allocated for the 100 percent expansion of the treatment plant and leaching pools in accordance with SCDHS requirements. Groundwater monitoring wells will be installed both upstream and downstream of the effluent disposal system to monitoring groundwater quality. Additionally, as required by the SPDES permit, a full-time operator will be present each day to make process adjustments to ensure the performance of the STP is optimized.

- The proposed action includes the installation of a stormwater management system that will contain, and recharge stormwater runoff associated with a 100-year storm event. The proposed stormwater management controls will include both structural infiltration (drywells, catch basins and pervious pavers) and non-structural methods (one recharge basin).

- The proposed SWPPP includes a detailed erosion and sediment control plan to manage stormwater generated on-site during construction activities, as well as post-construction stormwater management. Furthermore, the prepared SWPPP has been designed to ensure compliance with the water quality and water quantity requirements of the SPDES GP-0-20-001.

- The proposed project will incorporate native and/or drought tolerant plantings for water conservation and will utilize a smart irrigation control system to reduce or eliminate the use of the irrigation system during periods of rain.

- The proposed landscaping plan would consist of native and/or drought-tolerant plants and groundcover to promote water conservation and minimize the need for fertilization to the maximum extent practicable.

2.3 Ecological Resources

2.3.1 Existing Conditions

Ecological surveys were conducted at the 30.25-acre subject property on September 18, 2020 by Dr. William P. Bowman of Land Use Ecological Services, Inc. (LUES). Plant and wildlife lists for the project site are provided in Tables 13 through 16 of this DEIS. A total of 71 vascular plant species were observed at the project site, including 30 woody plants and 41 herbaceous plants. Additionally, 73 birds, 20 mammals and three (3) herpetiles were observed or are expected to occur on the project site.

Ecological Communities

The project site consisted of an agricultural field and a small residential area (1.2± acres) between 1947 and 2010. An aerial image of the project site from 1962 is provided in Figure 1 in Appendix J of this DEIS. Agricultural use of the property appears to have been abandoned in 2010, as indicated by historical aerial imagery from the Suffolk County GIS Viewer.[7] The existing ecological communities are the result of successional processes since the abandonment of agricultural uses at the project site. The existing ecological communities currently present at the project site include successional northern sandplain grassland, southern successional hardwood forests and successional shrublands, and pitch pine-oak forest.

The boundaries of the ecological communities were mapped based on 2020 conditions and are illustrated on Figure 2 in Appendix J of this DEIS. The calculations of the acreage of each ecological

[7] www.suffolkcountyny.gov/Portals/0/planning/Cartography/1930/sc19304f2WEB.pdf.

community type and the percentage of the total project site area are provided in Table 13 below. Descriptions of the ecological communities observed are provided below along with the New York Natural Heritage Program (NYNHP) community descriptions from Edinger et al (2014).

Table 13 – Ecological Communities at the Subject Property

Ecological Community	Acres	Percent of Site
Successional Northern Sandplain Grassland	17.84±	59.00%
Successional Southern Hardwoods	7.90±	26.10%
Pitch Pine – Oak Forest	4.30±	14.20%
Successional Shrublands	0.21±	0.70%
Totals	30.25±	100%

Successional Northern Sandplain Grassland

Successional northern sandplain grasslands represent 17.84± acres, or 59 percent of the project site. The following is the definition of this community as described by Edinger et al (2014):

> "**Successional northern sandplain grasslands**: a meadow community that occurs on open sandplains that have been cleared and plowed (for farming or development), and then abandoned. This community is usually dominated by a low, dry turf of sedges and grasses less than 30 cm [centimeters] (12 inches) tall and includes patches of open sand and patches of soil covered with mosses and lichens. These grasslands are dominated grasses and sedges, such as little bluestem (*Schizachyrium scoparium*), hairgrass (*Avenella flexuosa*), Pennsylvania sedge (*Carex pensylvanica*), common poverty grass (Danthonia spicata), panicgrasses (*Dichanthelium acuminatum ssp. columbianum, D. linearifolium, D. depauperatum*), and other sedges (*Carex rugosperma, C. lucorum*). Characteristic herbs with low percent cover include bracken fern (*Pteridium aquilinum var. latiusculum*), stiff-leaf aster (*Ionactis linariifolius*), butterflyweed (*Asclepias tuberosa*), round-head bushclover (*Lespedeza capitata*), whorled loosestrife (*Lysimachia quadrifolia*), and pale bluets (*Houstonia longifolia*). They have relatively few other herbs, but include small amounts of characteristic sandplain species, such as bitter milkwort (*Polygala polygama*), panic grass (*Dichanthelium xanthophysum*), common milkweed *(Asclepias syriaca*), jointweed (*Polygonella articulata*), and Houghton umbrella-sedge (*Cyperus houghtonii*). Wild lupine (*Lupinus perennis*), horsemint (*Monarda punctata*), and Great Plains flatsedge (*Cyperus lupulinus ssp. macilentus*) are good indicator species in eastern New York examples. These grasslands consist primarily of native species, although in some areas near roads they are invaded by non-native weeds such as spotted knapweed (*Centaurea stoebe ssp. micranthos*) and St. Johns-wort (*Hypericum perforatum*)."

The sandplain grasslands on the subject property have developed since the cessation of agricultural activities in 2010. Edinger et al (2014) indicates that this is a short-lived ecological community that succeeds to a shrubland, woodland, or forest community without physical disturbance such as mowing or fire. For example, other portions of the project site where agricultural uses were abandoned between 1969 and 1978 have transitioned to various successional forest communities.

At the project site, this ecological community is dominated by little bluestem (*Schizachyrium scoparium*), fall witch grass (*Digitaria cognata*), and mugwort (*Artemesia vulgaris*). Due to the proximity to Middle Country Road and other intensive land uses (the adjacent sand mine and sod farm), mugwort was abundant in the successional grasslands. Due to the short time period since cessation of agriculture, relatively few broad-leaved herbaceous plants trailing woody vines, and recruiting tree seedlings were present. Those that were observed included goldenrods (*Solidago rugosa* and *Euthamia gramnifolia*), common milkweed (*Asclepias syriaca*), brambles (Rubus allegheniensis, and Rubus flagellaris), multiflora rose (*Rosa multiflora*), pitch pine (*Pinus rigida*) and eastern red cedar (*Juniperus virginiana*) seedlings. Small patches of reindeer lichen are interspersed within the successional grasslands and stands of sweet fern (*Comptonia peregrine*) were present along the margins of these grasslands.

Successional grasslands are short-lived and are dependent on natural or anthropogenic disturbance (such as prescribed fires or mechanical mowing of trees and shrubs) for long-term persistence. The short-lived nature and dependence of successional grassland on periodic disturbance contributes to these ecological communities being classified with a rarity ranking of G4 and S3 indicating that these communities are likely considered "demonstrably secure" globally and "vulnerable" in New York State (Edinger et al, 2014).

Successional Southern Hardwoods

Successional southern hardwoods represent 7.90 acres, or 26.1 percent, of the project site. The following is the definition of this community as described by Edinger et al (2014):

> "**Successional southern hardwoods**: 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 (*U. rubra*), white ash (*Fraxinus americana*), red maple (*Acer rubrum*), box elder (*Acer negundo*), silver maple (*A. saccharinum*), 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. Southern indicators include American elm, white ash, red maple, box elder, choke-cherry, and sassafras. This is a broadly defined community and several seral and regional variants are known."

Edinger et al (2014) indicates that this ecological community is distributed throughout New York State with a rarity ranking of G5 and S5 indicating that these communities are considered "demonstrably secure" both globally and in New York State.

At the project site, this ecological community has developed along the western boundary and in the northeastern corner of the project site where agricultural uses were abandoned in the late 1970s to early 1980s. Dominant tree species include black cherry (*Prunus serotina*) and black locust (*Robinia pseudoacacia*) typically ranging from four to eight inches Diameter at Breast Height (DBH). Norway maple (*Acer platanoides*) is abundant in the northeastern portion of the project site in the vicinity of the former farm building. Eastern red cedar is abundant and principally located on the margins of the

successional grasslands. Some large oak trees (primarily scarlet oak, *Quercus coccinea*) are present within the successional hardwood stands particularly along the western property boundary. The understory and ground layers in the project site's successional forests consist of various brambles (*Rubus sp.*), goldenrods (*Solidago sp.* and *Euthamia gramnifolia*), Virginia creeper (*Parthenocissus quinquefolia*), Asiatic bittersweet (*Celastrus orbiculatus*), mile-a-minute vine (*Persicaria perfoliata*), Japanese honeysuckle (*Lonicera japonica*), poison ivy (*Toxicodendron radicans*), multiflora rose (*Rosa multiflora*), orchard grass (*Dactylis glomerata*), mugwort (*Artemesia vulgaris*), pokeweed (*Phytolacca americana*), and bitter dock (*Rumex obtusifolius*).

Pitch Pine – Oak Forest

Dense stands of young pitch pine (Pinus rigida) represent 4.3± acres, or 14.2 percent, of the subject property. The following is the definition of this community as described by Edinger et al (2014):

> "**Pitch pine-oak forest**: a mixed forest that typically occurs on well-drained, sandy soils of glacial outwash plains or moraines; it also occurs on thin, rocky soils of ridgetops. The dominant trees are pitch pine (*Pinus rigida*) mixed with one or more of the following oaks: scarlet oak (*Quercus coccinea*), white oak (*Q. alba*), red oak (*Q. rubra*), or black oak (*Q. velutina*). The relative proportions of pines and oaks are quite variable within this community type. Examples can range from having widely spaced pines that are often emergent above the oak canopy to a nearly pure stand of pines with only a few widely spaced oak trees. The shrub layer is well-developed with scattered clumps of scrub oak (*Quercus ilicifolia*) and a nearly continuous cover of low heath shrubs such as lowbush blueberries (*Vaccinium pallidum, V. angustifolium*) and black huckleberry (*Gaylussacia baccata*). The herbaceous layer is relatively sparse; characteristic species are bracken fern (*Pteridium aquilinum var. latiusculum*), wintergreen (*Gaultheria procumbens*), and Pennsylvania sedge (*Carex pensylvanica*)."

Edinger et al (2014) indicates that this ecological community is distributed throughout New York State with a rarity ranking of G4, G5 and S4 indicating that these communities are considered "apparently secure" both in globally and in New York State. The pitch pine-oak forests on the project site consist of dense, nearly pure stands of pitch pine. The dense shrub layer consisting of scrub oak and ericaceous shrubs often observed in pitch pine-oak forests is not present at this project site due to the high stand density of the pitch pine canopy and the short period of time since the cessation of agriculture uses and forest initiation. At this project site, the shrub understory and herbaceous ground layer in the pitch pine stands are very sparse consisting of widely scattered shrubs including bayberry, Japanese barberry, and privet.

Successional Shrublands

Small patches of successional shrublands are located at the margins between the project site's successional forests and sandplain grasslands. The successional shrublands represent 0.21 acres, or 0.70 percent, of the project site. The following is the definition of this community as described by Edinger et al (2014):

"**Successional shrublands**: a shrubland that occurs on sites that have been cleared (for farming, logging, development, etc.) or otherwise disturbed. This community has at least 50 percent cover of shrubs. Characteristic shrubs include gray dogwood (*Cornus racemosa*), eastern red cedar (*Juniperus virginiana*), raspberries (Rubus spp.), serviceberries (Amelanchier spp.), choke-cherry (*Prunus virginiana*), wild plum (*Prunus americana*), sumac (*Rhus glabra, R. typhina*), nanny-berry (*Viburnum lentago*), and arrowwood (*Viburnum dentatum var.lucidum*). Non-native invasive shrubs include hawthornes (*Crataegus spp.*), multiflora rose (*Rosa multiflora*), Russian and autumn olive (*Elaeagnus angustifolia, E. umbellata*), buckthorns (*Rhamnus cathartica, Frangula alnus*), and shrubby honeysuckles (*Lonicera tatarica, L. morrowii, L. maacckii*)."

At the project site, this ecological community consists of small dense stands of bayberry (*Morella pensylvanica*), multiflora rose (*Rosa multiflora*), and Alleghany blackberry (*Rubus allegheniensis*) on or near disturbed soils without interspersed successional trees or warm season grasses. Edinger et al (2014) indicates that this ecological community is distributed throughout New York State with a rarity ranking of G5 and S5 indicating that these communities are considered "demonstrably secure" both in globally and in New York State.

Plants

A plant list for the subject property was prepared based on ecological surveys completed by Dr. William P. Bowman and is included below. A total of 71 vascular plant species were observed at the project site, including 30 woody plants and 41 herbaceous plants.

Table 14 – Plant Species List

TREES, SHRUBS AND WOODY VINES

Common Name	***Scientific Name***
Norway Maple	*Acer platanoides*
Groundsel Bush	*Baccharis halimifolia*
Japanese Barberry	*Berberis thunbergia*
Gray Birch	*Betula populifolia*
Asiatic Bittersweet	*Celastrus orbiculatus*
Sweet Fern	*Comptonia peregrine*
Autumn Olive	*Elaeagnus umbellate*
Eastern Red Cedar	*Juniperus virginiana*
European Larch	*Larix decidua*
Privet	*Ligustrum sp.*
Japanese Honeysuckle	*Lonicera japonica*
Shrub Honeysuckle	*Lonicera sp.*
Bayberry	*Morella pensylvanica*
Virginia Creeper	*Parthenocissus sp.*
Pitch Pine	*Pinus rigida*
Black Cherry	*Prunus serotina*
Apple	*Pyrus malus*
White Oak	*Quercus alba*
Scarlet Oak	*Quercus coccinea*

Black Oak	*Quercus velutina*
Black Locust	*Robinia pseudoacacia*
Multiflora Rose	*Rosa multiflora*
Blackberry	*Rubus allegheniensis*
Northern Dewberry	*Rubus flagellaris*
Wineberry	*Rubus phoenicolasius*
Catbriar	*Smilax rotundifolia*
Poison Ivy	*Toxicodendron radicans*
Wisteria	*Wisteria sp.*

HERBACEOUS PLANTS

Common Name	***Scientific Name***
Yarrow	*Achillea millefolium*
Bent Grass	*Agrostis sp.*
Garlic Mustard	*Alliaria petiolate*
Field Garlic	*Allium vineale*
Indian Hemp	*Apocynum cannabinum*
Mugwort	*Artemisia vulgaris*
Common Milkweed	*Asclepias syriaca*
Pennsylvania Sedge	*Carex pensylvanica*
Reindeer Lichen	*Cladonia sp.*
Wild Carrot	*Daucus carota*
Hair Grass	*Deschampsia cepitosa*
Fall Witch Grass	*Digitaria cognata*
Crab Grass	*Digitaria sanguinalis*
Indian Strawberry	*Duchesnea indica*
Quack Grass	*Elytrigia repens*
Grass-leaved Goldenrod	*Euthamia graminifolia*
Slender-leaved Goldenrod	*Euthamia tenufolia*
Late Thoroughwort	*Eupatorium serotinum*
Fescue	*Festuca sp.*
Common St. John's Wort	*Hypericum perforatum*
Cat's Ear	*Hypochoeris radicata*
Mile a Minute Vine	*Ipomoea cairica*
Greene's Rush	*Juncus greenei*
Chinese Lespedeza	*Lespedeza cuneata*
Butter-and-Eggs	*Linaria vulgaris*
Deertongue Grass	*Panicum clandestinum*
Deertongue Grass	*Panicum sp.*
Switch Grass	*Panicum virgatum*
Mile-a-Minute	*Persicaria perfoliate*
Pokeweed	*Phytolacca americana*
English Plantain	*Plantago lanceolata*
Blue Grass	*Poa sp.*
Black Bindweed	*Polygonum convolvulus*

Bitter Dock	*Rumex obtusifolius*
Little Bluestem	*Schizachyrium scoparium*
Green Foxtail	*Setaria viridis*
Gray Goldenrod	*Solidago nemoralis*
Rough-stemmed Goldenrod	*Solidago rugosa*
Smooth White Oldfield Aster	*Symphyotrichum racemosum*
Common Dandelion	*Taraxacum officinale*
White Clover	*Trifolium repens*
Common Mullein	*Verbascum thapsus*
Periwinkle	*Vinca minor*

Wildlife

The birds, mammals, and herpetiles observed or expected to occur on the subject property (presented in Table 15, Table 16, and Table 17 below) are based on field surveys conducted by Dr. William P. Bowman. The wildlife species present on the project site are those that are found in early successional habitats and are tolerant of human activity and disturbance.

Birds

Approximately 73 bird species are expected to utilize the subject property based on project site observations and the habitat types present. The observed species are typical of suburban landscapes, open fields, shrublands and woodlands, and young forests. Approximately 74 percent of these birds (i.e. 54± species) may utilize the property for breeding habitat based on the observed habitat conditions and known bird breeding activity documented in the 2008 New York Breeding Atlas in the vicinity of Calverton (McGowan and Corwin, 2008). Approximately 66 percent of these birds (i.e. 48± species) are expected to transiently utilize the project site seasonally such as the summer months only, only during spring and autumn migrations, or as overwintering habitat. The remaining species (25± species) can be found year-round in appropriate habitats on Long Island.

Table 15 – Bird Species Observed/Expected On-site

BIRD SPECIES OBSERVED/EXPECTED ON-SITE[1]

Scientific Name	**Common Name**	**Observed/ Expected**	**Breeding Status (Y/N)[2]**	**Year Round/ Migrant/ Overwintering[3]**
Accipiter cooperii	Cooper's Hawk	E	N	Y
Accipiter striatus	Sharp-shinned Hawk	E	N	Y
Agelaius phoeniceus	Red-winged Blackbird	E	Y	Y
Ammodramus savannarum	Grasshopper Sparrow	E	N	M
Archilochus colubris	Ruby-throated Hummingbird	E	Y	M
Baeolophus bicolor	Tufted Titmouse	E	Y	Y
Bombycilla cedrorum	Cedar Waxwing	E	Y	Y
Bubo virginianus	Great Horned Owl	E	N	Y
Buteo jamaicensis	Red-tailed Hawk	O	N	Y

Cathartes aura	Turkey Vulture	E	N	Y
Catharus fuscescens	Veery	E	N	M
Colaptes auratus	Northern Flicker	E	Y	Y
Corvus brachyrhynchos	American Crow	O	Y	Y
Cardinalis	Northern Cardinal	E	Y	Y
Carduelis tristis	American Goldfinch	O	N	Y
Carpodacus mexicanus	House Finch	E	Y	Y
Carpodacus purpureus	Purple Finch	E	N	Y
Catharus guttatus	Hermit Thrush	E	Y	O
Chaetura pelagica	Chimney Swift	E	Y	M
Charadrius melodius	Killdeer	E	Y	Y
Circus hudsonius	Northern Harrier	E	N	Y
Colinus virginianus	Northern Bobwhite	E	N	Y
Corvus brachyrynchos	American Crow	O	Y	Y
Corvus ossifragus	Fish Crow	E	Y	Y
Cyanocitta cristata	Blue Jay	O	Y	Y
Dendroica coronata	Yellow-rumped Warbler	E	N	M
Dumetella carolinensis	Gray Catbird	O	Y	Y
Eremophila alpestris	Horned Lark	E	N	O
Falco sparverius	American Kestrel	E	Y	Y
Geothlypis trichas	Common Yellowthroat	O	Y	Y
Hiruno rustica	Barn Swallow	E	Y	Y
Icterus galbula	Baltimore Oriole	E	Y	M
Junco hyemalis	Dark-eyed Junco	E	N	M
Megascops asio	Eastern Screech Owl	E	Y	Y
Meleagris gallopavo	Wild Turkey	O	Y	Y
Melanerpes carolinus	Red-bellied Woodpecker	E	Y	Y
Melospiza melodia	Song Sparrow	O	Y	Y
Mimus polyglottos	Northern Mockingbird	O	Y	Y
Passerculus sandwichensis	Savannah Sparrow	E	Y	M
Passerella iliaca	Fox Sparrow	E	N	O
Passerina caerulea	Blue Grosbeak	E	Y	M
Passerina cyanea	Indigo Bunting	E	Y	M
Phasianus colchicus	Ring-necked Pheasant	E	Y	Y
Picoides pubescens	Downy Woodpecker	E	Y	Y
Picoides villosus	Hairy Woodpecker	E	N	Y
Pipilo erythrophthalmus	Eastern Towhee	E	Y	Y
Poecile atricapillus	Black-capped Chickadee	O	Y	Y
Pooecetes gramineus	Vesper Sparrow	E	N	M
Quiscalus quiscula	Common Grackle	E	Y	Y
Regulus calendula	Ruby-crowned Kinglet	E	N	M
Regulus satrapa	Golden-crowned Kinglet	E	N	M
Sialia sialis	Eastern Bluebird	E	Y	M
Sayornis phoebe	Eastern Phoebe	E	Y	Y
Setophaga discolor	Prairie Warbler	E	Y	M

Setophaga petechia	Yellow Warbler	E	Y	Y
Setophaga pinus	Pine Warbler	E	Y	M
Sitta carolinensis	White-breasted Nuthatch	E	N	Y
Spizella passerina	Chipping Sparrow	E	Y	Y
Spizella pusilla	Field Sparrow	E	Y	Y
Sphyrapicus varius	Yellow-bellied Sapsucker	E	N	O
Sturnella magna	Eastern Meadowlark	E	Y	Y
Sturnus vulgaris	European Starling	E	Y	Y
Tachycineta bicolor	Tree Swallow	O	Y	Y
Thyrothorus ludovicianus	Carolina Wren	E	Y	Y
Troglodytes aedon	House Wren	E	Y	Y
Turdus migratorius	American Robin	O	Y	Y
Tyrannus	Eastern Kingbird	E	Y	M
Toxostoma rufum	Brown Thrasher	E	Y	M
Vermivora pinus	Blue-winged Warbler	E	Y	M
Vireo griseus	White-eyed Vireo	E	Y	M
Zenaida macroura	Mourning Dove	O	Y	Y
Zonotrichia albicollis	White-throated Sparrow	E	N	O

[1]Species Observed During Field Surveys in 2020 (WP Bowman).
[2]Based on New York State Breeding Bird Atlas (McGowan and Corwin, 2008); Y = Yes, Suitable habitat is present on-site and breeding of this species is known to occur in local Breeding Bird Atlas Block (Block #6853C); N = No, Breeding is not known to occur in local Breeding Bird Atlas Block and/or suitable breeding habitat for this species is not present on the project site.
[3]Y= Species can be found year-round; M= Species can be found in summer months only (for breeding birds) or species can be found during spring or autumn migrations; O= Species are expected to overwinter

Mammals

Five (5) mammal species (or scat/sign of these species) were observed at the project site including eastern cottontail (*Sylvilagus floridanus*), woodchuck (*Marmota monax*), meadow vole (*Microtus pennsylvanicus*), raccoon (*Procryon lotor*), and white-tailed deer (*Odocoileus virginianus*). Table 16 provides a list of all mammal species observed or expected to occur on the project site based on habitat preferences (Connor, 1971) and the ecological communities present. All observed or expected mammals are common in suburban landscapes; prefer open, early successional habitats; and are tolerant of human activity.

The expected bat species, big brown bat (*Eptesicus fuscus*), eastern red bat (*Lasiurus borealis*), northern long-eared bat (*Myotis septentrionalis*), and little brown bat (*Myotis lucifugus*), are based on Fishman (2013) and Connor (1971). The northern long-eared bat (*Myotis septentroinalis*) was listed in 2016 as threatened by the USFWS and the NYSDEC. The northern long-eared bat can utilize a wide variety of upland woodland and forest types (NYNHP, 2016), but are typically associated with mature interior forest (Carroll et al, 2002) and tend to avoid woodlands with significant edge habitat (Yates and Muzika, 2006). Other studies have found that northern long-eared bat can also be found using younger forest types (NYNHP, 2016). Due to the northern long-eared bats potential use of various upland forest types, this species could utilize the project site for foraging habitat in the summer months.

Table 16 – Mammal Species Observed/Expected On-Site

MAMMAL SPECIES OBSERVED OR EXPECTED ON-SITE[1]	
Scientific Name	**Common Name**
Blarina brevicauda	Short-tailed Shrew
Didelphis virginiana	Virginia Opossum
Eptesicus fuscus	Big Brown Bat
Lasiurus borealis	Eastern Red Bat
Marmota monax[1]	Woodchuck
Microtus pennsylvanicus[1]	Meadow Vole
Mus musculus	House Mouse
Myotis lucifugus	Little Brown Bat
Myotis septentrionalis	Northern Long-eared Bat
Odocoileus virginianus[1]	White-tailed Deer
Peromyscus leucopus	White-footed Mouse
Pitymys pinetorum	Pine Mouse
Procyon lotor[1]	Raccoon
Rattus norvegicus	Norway Rat
Scalopus aquaticus	Eastern Mole
Sciurus carolinensis[1]	Gray Squirrel
Sorex cinereus	Masked Shrew
Sylvilagus floridanus[1]	Eastern Cottontail
Tamias striatus	Eastern Chipmunk
Vulpes	Red Fox

[1]Indicates species or sign observed on-site.

Reptiles and Amphibians

Few species of reptiles and amphibians are expected to occur on the project site due to the absence of water and lack of habitat diversity. The species that are expected to be present based on project site observations, existing habitat types, and the New York State Herpetological Atlas (NYSDEC, 2009) are listed in the table below. The New York State Herpetological Atlas provides known records of reptile and amphibian species from 1990-1998 for each 7.5-minute USGS topographic quadrangle within New York State. The expected reptile and amphibian species listed below are based on the Wading River, NY quadrangle. The eastern box turtle (*Terrapene carolina*) is listed as a New York State Species of Special Concern and is a common inhabitant of dry and moist woodlands, brushy fields, marsh edges, and bottomlands (Massachusetts Division of Fisheries and Wildlife, 2015). The common and ubiquitous garter snake can be found in various woodlands, fields, and suburban habitats. The black racer is a large snake of dry upland habitats including open woodlands, shrubby grasslands and pastures, and old fields (Gibbs et al, 2007).

Table 17 – Reptile and Amphibian Species Observed/Expected On-Site

REPTILE & AMPHIBIAN SPECIES OBSERVED OR EXPECTED ON-SITE	
Scientific Name	**Common Name**
Coluber constrictor	Northern Black Racer
Terrepene carolina	Eastern Box Turtle
Thamnophis sirtalis	Common Garter Snake

Endangered, Threatened, Rare Species or Significant Ecological Communities

No endangered, threatened, or rare species or significant ecological communities were observed during the ecological surveys conducted. New York Natural Heritage Program (NYNHP) correspondence from December 2, 2020 indicates that the NYNHP has records of two state-listed animals or plants occurring in the vicinity of the project site (see Appendix J of this DEIS), eastern tiger salamander (*Ambystoma tigrinum*) and short-eared owl (*Asio flammeus*). Neither of these protected species are expected to utilize the project site.

Short-eared owl is a New York State-endangered inhabitant of grasslands (including fallow farmlands and old fields) and freshwater and tidal marshes. Short-eared owls nest in grasslands in northern New York State around the Great Lakes and in the St. Lawrence and Lake Champlain Valleys and, occasionally, in salt marshes in Long Island's South Shore Estuary (NYNHP, 2021). On Long Island, short-eared owls overwinter in grasslands and tidal marshes including the grasslands in the nearby EPCAL site. This species tends to avoid small habitat patches during both breeding/nesting and overwintering seasons. The minimum patch size typically used by short-eared owls for overwintering and breeding habitat is 20± acres and 70± acres, respectively (Deschant et al, 1999). The optimal patch size for overwintering habitat is 125 acres or greater (Tate et al, 1992; Deschant et al, 1999). Accordingly, the approximate 18-acres of successional grasslands on the subject property do not provide potential high-quality overwintering habitat due to the small habitat area and absence of connectivity to the nearby EPCAL grasslands.

The NYNHP indicates that the New York State-endangered tiger salamander (*Ambystoma tigrinum*) is known to occur in the vicinity of the subject property. Freshwater wetlands located on the EPCAL property are known to be used by tiger salamanders as breeding ponds. Tiger salamanders spend the large majority of the year in pine barrens and deciduous (red maple and oak spp.) and mixed pine-deciduous (pitch pine-oak spp.) forests with a blueberry understory located within 1,000 feet of breeding ponds. During this time, adult tiger salamanders are found in surficial soils suitable for burrowing and in soils with extensive networks of burrows from small mammals. NYSDEC guidance for protection of tiger salamander habitat requires the conservation of forested uplands within 1,000 feet of breeding ponds. There are no freshwater wetlands on the subject property and the property is located more than 1,000 feet from any potential salamander breeding ponds. Therefore, the upland forests of the subject property are not potential habitat for tiger salamander.

The project site contains habitat that could be utilized by the northern long-eared bat during the summer months. The northern long-eared bat (*Myotis septentrionalis*) is listed as threatened by both the USFWS

and New York State. The project site is not expected to have suitable roosting sites for northern long-eared bat due to the absence of exfoliating bark and cracks/crevices/hollows on the project site's trees.

The New York State Breeding Bird Atlas indicates that the New York State-threatened northern harrier (*Circus hudsonia*) is a probable breeder in the project area. The northern harrier breeds and winters in freshwater and brackish marshes; meadows, old fields, and grasslands; shrublands; and riparian woodlands (MacWhirter and Bildstein, 1996). Minimum patch size for harrier nesting appears to range between 20 and 40 acres (Herkert et al, 1999); thus, the 18-acres of grassland on the subject property are not large enough to provide high-quality nesting habitat for northern harrier. The project site may provide transient foraging habitat for northern harriers hunting for small rodents over the grasslands and agricultural fields in the project area.

Six (6) species listed as Species of Special Concern by New York State may potentially occur on or utilize the project site. Species of Special Concern are species which are not recognized as endangered or threatened, but for which documented evidence exists relating to their continued welfare in New York State. The Special Concern category exists within NYSDEC rules and regulations, but such designation does not provide any additional protection. These six species include:

Eastern Box Turtle	*Terrapene carolina*
Cooper's Hawk	*Accipiter cooperii*
Sharp-shinned Hawk	*Accipiter striatus*
Grasshopper Sparrow	*Ammodramus savannarum*
Vesper Sparrow	*Pooecetes gramineus*
Horned Lark	*Eremophila alpestris*

The eastern box turtle (*Terrapene carolina*) is expected to be found in any of the vegetated upland habitats on-site. Eastern box turtle may be found in a wide variety of habitats including in open deciduous forests, woodlands, forested bottomlands, open field and field edges, thickets, marshes, bogs, and stream banks. Eastern box turtles are threatened by development of their habitat, mortality on roadways, mortality from mowing of lawns and early successional habitats, and collection as pets.

Cooper's hawk (*Accipiter cooperii*) and sharp-shinned hawk (*Accipiter striatus*) inhabit various upland and wetland forests during the breeding season including fragmented forests within agricultural, suburban, and urban landscapes with sharp-shinned hawks preferring forest edge habits. Cooper's hawk has been documented to nest in the project area by the 2008 New York State Breeding Bird Atlas (Atlas Block# 6853C) (McGowan and Corwin, 2008); however, Cooper's hawks breeding sites have been expanding in New York over the last several decades. The successional forests at the subject property are not suitable nesting habitat for Cooper's hawks, which prefer to nest in forests with a closed canopy, trees that are more than 30 years old, and moderate to heavy shrub cover (Liguori, 2003). Sharp-shinned hawks were not documented to nest anywhere in Nassau or Suffolk Counties by McGowan and Corwin (2008). During the winter months, both species frequent fragmented habitats in residential and agricultural landscapes to hunt for songbirds. Both species could be expected to utilize the project site as foraging habitat during any season.

Grasshopper sparrow (*Ammodramus savannarum*), vesper sparrow (*Pooecetes gramineus*), horned lark (*Eremophila alpestris*) are grasslands birds known to occur in expansive grassland habitats at the EPCAL property and other locations in the Town of Riverhead and Town of Brookhaven. Grasshopper sparrow has been documented to nest in the project area by the 2008 New York State Breeding Bird Atlas (Atlas Block# 6853C) (McGowan and Corwin, 2008). Grasshopper sparrows utilize open grasslands and grass-dominated hayfields with some bare areas (Bollinger, 1995; Whitemore, 1981), without significant shrub cover, and are not proximal to cultivated fields, fence lines, and woods (DeGraaf and Rappole, 1995; Vickery, 1996; Wiens, 1969). Grasshopper sparrow reproductive habitat is generally greater than 25 acres in area (DeGraaf and Rappole, 1995). Accordingly, the subject property is not likely to provide breeding habitat for grasshopper sparrow due to insufficient grassland area, encroaching shrub cover, and adjacent cultivated fields and forests.

Vesper sparrow and horned lark have also been documented to nest in the project area by the 2008 New York State Breeding Bird Atlas (Atlas Block# 6853C) (McGowan and Corwin, 2008). Vesper sparrows inhabit large expanses of grasslands and fields with relatively short grasses and abundant exposed soils (Wiens, 1969; Smith, 2008). In New York, vesper sparrows have been found to nest in potato fields, cornfields, and over-grazed pastures (Smith, 2008). Similarly, horned larks also prefer to nest in areas with sparse vegetation and exposed soil such as old meadows; plowed fields; pastures; potato, cabbage, corn, and bean fields, racetrack grounds, golf courses, sandy barrens, and dunes with beach grass (Bull, 1974; Pickwell, 1931). Due to the small size of the subject property and relative paucity of bare ground areas typical of agricultural fields, the subject property does not provide high-quality nesting habitat for vesper sparrows or horned larks. However, the project site does provide marginal nesting habitat and transient habitat during migrations for these species and overwintering habitat for horned lark.

2.3.2 Potential Impacts

Ecological Communities

As evaluated by Dr. William Bowman, the proposed action would affect 30.25± acres of the successional sandplain grasslands, successional southern hardwood forests, successional shrublands, and pitch pine-oak forests currently present at the project site. The proposed action would construct 9.47± acres (412,629± SF) of warehouse and manufacturing buildings, 12.03± acres (524,016 SF) of asphalt pavement and concrete walkways, 0.96 acres (41,850 SF) of pervious pavers, and 7.79 acres (339,389 SF) of lawn and landscaping area including a grassed recharge basin. The proposed action would result in the loss of 17.84± acres (100 percent) of successional sandplain grasslands, 7.90± acres (100.0 percent) of successional southern hardwood forests (100.0 percent), 4.3± acres pitch pine-oak forest (100.0 percent), and 0.21± acres of successional shrublands (100.0 percent) (see Table 18 below). The acreage of developed surfaces (including proposed buildings, asphalt pavement, concrete walkways, and pervious pavers) is proposed to increase from 0.0 acres to 22.46 acres and would then comprise 74.25 percent of the project site.[8] Native trees and shrubs with turfgrasses would be planted in the proposed landscape buffers located along NYS Route 25 (minimum 70 feet wide), on the side property boundaries (typically 40 feet to 44 feet wide with 14.2±-foot minimum width), and on the rear property boundary (minimum 31.9± feet wide). Native tree and shrub buffers within the peripheral landscaping would be

[8] It is noted that for this section of the DEIS pervious pavers are included in the proposed developed surfaces as they do not provide any beneficial habitat for ecological resources.

20 feet wide along NYS Route 25 and 10 feet wide along the side and rear property boundaries, and 20 feet wide along the rear property boundary.

Table 18 – Proposed Changes in Ecological Community Coverages

Ecological Communities	Existing (Acres)	Percent of Existing	Proposed (Acres)	Percent of Proposed	Change in Acres	Percentage Change
Successional Sandplain Grassland	17.84±	59.0	0.0	0.0	-17.84	-100%
Successional Southern Hardwoods	7.90±	26.1	0.0	0.0	-7.90±	-100%
Pitch Pine-Oak Forest	4.30±	14.2	0.0	0.0	-4.3±	-100%
Successional Shrublands	0.21±	0.7	0.0	0.0	-0.21±	-100%
Developed Surfaces (Roofs, Roadways, Sidewalks, Curbing and Pervious Pavers)	0.0	0.0	22.46	74.25	+22.46±	+ 74.25%
Landscaping (including turf grass and grassed Recharge Basin)	0.0	0.0	7.79	25.75	+7.79±	+25.75%
Total Site	30.25	100%	30.25	100%	30.25	100%

The loss of 30.25± acres of early successional grassland and forest communities would result in decreased habitat availability for the plants, birds, and wildlife that utilize these habitats and a decrease in the abundance and diversity of the plant and wildlife species present. The proposed action would result in an increase of 22.46± acres of buildings and impervious surfaces. The proposed 7.79 ± acres of mowed lawn and landscaping consists of maintained turf grass with 10-20± foot wide rows of trees and shrubs along the property boundaries. The proposed landscaping trees and shrubs would consist primarily of native species including eastern red cedar (*Juniperus virginiana*), eastern white pine (*Pinus strobus*), red maple (*Acer rubrum*), ninebark (*Physocarpus opulifolius 'Summer Wine'*), arrowwood (*Viburnum dentatum*), black chokeberry (*Aronia melanocarpa*) and inkberry holly (*Ilex glabra 'Compacta'* and *'Strong Box'*). The proposed landscaping plantings do not include any species listed as invasive by the Long Island Invasive Species Management Area[9] or included on Suffolk County's "No Sale/Transfer List" (Suffolk County Local Law No. 22-2007, Adopted 6-26-2007).

Under the proposed conditions, human disturbance and activity would be substantially increased, the currently existing natural habitats would be lost, and remaining habitat would be limited to only the narrow strips of landscaping and border trees. These landscape buffers would not provide any significant ecological benefits due to the poor diversity and wildlife habitat provided by these areas. Accordingly, under the proposed conditions, only commonplace and commensal (i.e. tolerant of human activity) wildlife species, such as raccoon (*Procryon lotor*), eastern cottontail (*Sylvilagus floridanus*), American robin (*Turdus migratorius*), house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), and mockingbird (*Mimus polyglottos*) are expected to utilize the project site. Those species that are less tolerant of human activity, require greater habitat quality, habitat diversity, or larger patch sizes would not utilize the project site under the proposed conditions.

[9] http://www.liisma.org/

The resulting habitat loss and any subsequent reductions in local abundance of bird or wildlife species is not a significant adverse environmental impact as:

- The project site's successional sandplain grasslands do not provide high-quality early successional habitat due to their small size, encroachment of invasive species (i.e., mugwort) and woody vegetation, and the adjacent industrial (i.e., sand mine) and agricultural (i.e., sod farm) uses that limit connectivity to nearby EPCAL grasslands. The successional grasslands are a relatively short-lived community that succeed to shrubland, woodland, or forest community. For example, the successional forests in northeastern and western portions of the property have developed within 30 to 40 years of cessation of agricultural uses. Therefore, the existing sandplain grasslands on the subject property would be lost without active management through prescribed fire and/or mechanical removal of woody plants.

- While many grassland habitats are considered vulnerable by the NYNHP and have importance in supporting grassland-specialist bird species, grasslands must be sufficiently large to support the breeding of grassland birds. Studies of grassland bird abundance in Maine have indicated that grassland patches should be a minimum of 125 acres and ideally should be greater than 500 acres to support grassland birds (Vickery et al, 1994). More specifically, the successional sandplain grasslands at the project site (approximately 18 acres) are below the minimum patch size requirements for short-eared owl (20-70 acres), northern harrier (20-40 acres), and grasshopper sparrow (25 acres) and do not contain sufficient areas of exposed, bare soil to provide high-quality nesting habitat for vesper sparrow and horned lark. Moreover, the total area and quality of the successional grasslands at the project site would decline in the future due to the encroachment of woody trees and shrubs and gradual transition to successional shrubland or forest habitat. Accordingly, the loss of the successional grassland area associated with this project is not expected to have any significant adverse impacts to grassland birds.

- The southern successional hardwood forest, pitch pine-oak forest, and successional shrubland habitats on the project site are classified by the NYNHP as "demonstrably secure" or "apparently secure" both in New York State and globally (Edinger et al. 2014). Accordingly, these habitats are abundant both locally and throughout New York State.

- The forests and successional grasslands present at the project site are not known to provide high-quality habitat for any endangered, threatened, or rare wildlife or plant species.

- The populations of the commonplace plant and wildlife species inhabiting the forests and successional grasslands found at the subject property are largely considered abundant and stable.

Endangered, Threatened, Rare Species or Significant Ecological Communities

No endangered, threatened, or rare species or significant ecological communities are known or expected to be present on the project site. The project site is located more than 1,000 feet from any known tiger salamander breeding ponds and is separated from potential breeding habitat by large tracts of land uses unsuitable for salamander movement (i.e., sand mine and sod farm uses). The approximate 18-acres of

successional sandplain grasslands are substantially smaller than optimal grassland patches for wintering short-eared owls (20-125 acres) and northern harrier (20-40 acres).

The project site contains habitat that could be utilized by the northern long-eared bat (*Myotis septentrionalis*) during the summer months. The northern long-eared bat is listed as threatened by both the USFWS and New York State. Due to the presence of summer roost habitat at the project site and documentation of northern long-eared bat foraging over various habitat types throughout eastern Suffolk County, the NYSDEC recommends that any clear-cutting of trees occur during the winter months (between December 1 and February 28 in Suffolk County) to avoid any potential take of this protected species.

Six species listed as Species of Special Concern by New York State are expected to occur on the project site including eastern box turtle (*Terrapene carolina*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), grasshopper sparrow (*Ammodramus savannarum*), vesper sparrow (*Pooecetes gramineus*), and horned lark (*Eremophila alpestris*).

The eastern box turtle (*Terrapene carolina*) would be expected to utilize any of the naturally vegetated upland habitats on project site. While box turtles are expected to be present on the project site, the barriers (i.e. sand mine, sod farm, and NYS Route 25) located to the west, north, and east of the project site likely limit this species current abundance on the project site. The project would result in a loss of approximately 30.25 acres of habitat for eastern box turtle and the proposed conditions would provide poor habitat for this species due to potential mortality from mowers in maintained lawn areas and vehicles in roads and parking areas. This is not likely to pose a significant impact to this species due to the regional abundance of suitable habitat for this species.

The proposed action would result in a loss of foraging habitat and degradation of habitat quality for Cooper's hawk (*Accipiter cooperii*) and sharp-shinned hawk (*Accipiter striatus*), although these species would likely continue to hunt the human-tolerant songbirds and doves that would utilize the developed property and its lawns and landscaped borders.

The proposed action would result in loss of transient habitat for foraging grasshopper sparrow (*Ammodramus savannarum*), but no loss of suitable breeding habitat, as grasshopper sparrow reproductive habitat is generally greater than 25 acres in area (DeGraaf and Rappole 1995). Due to the small size of the subject property and relative paucity of bare ground areas typical of agricultural fields, the subject property does not provide high-quality nesting habitat for vesper sparrows or horned larks. The proposed project would result in the loss of marginal nesting habitat and transient habitat during migrations for vesper sparrow and horned lark and overwintering habitat for horned lark. Furthermore, the total area and quality of the successional grasslands at the project site would decline without active management (such as prescribed fire or mowing) due to the encroachment of woody trees and shrubs and gradual transition to successional shrubland or forest habitat. Accordingly, the loss of the short-lived, low-quality, successional grassland area associated with this project is not expected to have any significant adverse impacts to vesper sparrow or horned lark populations.

Overall, the proposed action would not have significant adverse impact on endangered, threatened, rare species or significant ecological communities.

2.3.3 Proposed Mitigation

The following measures have been incorporated into the project to minimize or eliminate potential adverse impacts to ecological resources:

- The proposed landscaping trees and shrubs will consist primarily of native species including eastern red cedar (Juniperus virginiana), eastern white pine (*Pinus strobus*), red maple (*Acer rubrum*), ninebark (*Physocarpus opulifolius* 'Summer Wine'), arrowwood (*Vburnum dentatum*), black chokeberry (*Aronia* melanocarpa) and inkberry holly (*Ilex glabra 'Compacta'* and '*Strong Box*'). The proposed landscaping plantings will not include any species listed as invasive by the Long Island Invasive Species Management Area or included on Suffolk County's "No Sale/Transfer List" (Suffolk County Local Law No. 22-2007, Adopted 6-26-2007).

- Any clear-cutting of trees would occur during the winter months (between December 1 and February 28) in accordance with NYSDEC recommendations to avoid any potential take of northern long-eared bat (*Myotis septentrionalis*) in Suffolk County, a species listed as threatened by both the USFWS and New York State. Winter clearing of the trees will also minimize potential impacts to breeding wildlife and birds.

3.0 HUMAN ENVIRONMENTAL RESOURCES

3.1 Land Use and Zoning

3.1.1 Existing Conditions

Land Use

Subject Property

The subject property comprises 30.25 acres of undeveloped, former agricultural land on the south side of Middle Country Road approximately 405 feet east of Fresh Pond Avenue (see Figure 1 in Appendix A of this DEIS and Photographs 1, 2, 3, 6, 7, and 8 in Appendix K of this DEIS). The project site consists of 13.81± acres of woodland with 16.42± acres of meadows and brushlands associated with the former agricultural land use. Remnants of former agricultural-use buildings in the form of foundations and isolated walls also exist on the subject property.

Surrounding Properties

The surrounding area can be generally characterized by large lot commercial and retail uses on the south side of Middle Country Road, interspersed with agricultural and residential land uses to the north. As indicated on the Land Use Map (see Figure 4 in Appendix A of this DEIS), the land uses within a 1,000-foot radius of the subject property include retail, commercial, industrial, residential and agriculture. Below is a general description of the land uses in the immediate surrounding area and the Calverton area as a whole (both within and outside the 1,000 foot radius). The corresponding photographs taken to illustrate the surrounding land uses within 1,000 feet of the subject property are noted and included in Appendix K of this DEIS.

- West: To the west of the project site is the Tractor Supply Company retail store (see Photographs 2, 4, 9, and 12 in Appendix K), the Sky Materials Site (see Photographs 9 through 11 and 13 in Appendix K) as well as a former sand mining operation and a single-family residence. Further west on the south side of Middle Country Road is recreational and open space. On the north side of Middle Country Road are single-family residential uses with recreational uses beyond. Beyond and outside of the 1,000-foot radius, is the Stony Brook University Incubator at Calverton, as well as the Town-owned EPCAL property (including Grumman Memorial Park) (see Photographs 14 and 15 in Appendix K).

- North: To the north of the subject property are agricultural land uses and several commercial land uses (see Photographs 16 and 17 in Appendix K). On the north side of Middle Country Road are agricultural and residential land uses as well as vacant land (see Photographs 18 in Appendix K). Further north along Sound Avenue, outside of the 1,000-foot radius, is agricultural and recreational land.

- East: To the east of the project site is an active sod farm (see Photographs 19 and 20 in Appendix K), residential uses and industrial uses east of Frances Boulevard. Beyond that to the east, south of Middle Country Road, there is a mix of industrial (e.g., FedEx Ship Center), commercial (e.g., gas stations, a farm equipment supplier, Moto 1 Long Island Motorsports Park, PODS Moving & Storage, and Splish Splash Water Park), residential, and institutional (i.e., Riverhead Charter School and the United States Post Office) uses interspersed with agricultural uses. Northeast of the subject property, north of Middle Country Road, are a mix of agricultural, industrial and recreational uses with residential uses interspersed (see Photographs 21, 22, 23 and 24).

- South: To the south is the Town-owned EPCAL property and a portion of the EPCAL recreational bike path (see Photograph 25 in Appendix K). Further south, outside the 1,000-foot radius, are recreational and open space uses within the Town of Brookhaven.

Sky Materials Site

According to the Final Scope for the DEIS, the adjacent active C&D processing facility owned and operated by Sky Materials is a potential impact issue for consideration. As indicated in Section 2.1.2 of this DEIS, based on review of historical aerial photographs, there is no evidence of piles of soil or debris, or other evidence of improper dumping associated with the Sky Materials Site on the subject property. A field visit was also conducted by PWGC staff on April 3, 2021 to observe site conditions and compare to aerial photography. Based on the field visit, there is evidence of a possible access road/trail that appears to be associated with the Sky Materials Site that encroached onto the southwestern corner of the subject property from approximately 2006 to 2010 (the trail is currently overgrown with vegetation). Based on the documented history of poor housekeeping, violations, and non-compliance with permit conditions (as noted in Section 2.1.1 of this DEIS) it is possible that soils, C&D debris and/or other materials from Sky Materials may have been improperly dumped along the common boundary with the subject property. Accordingly, prior to construction, sampling would be performed to determine whether improper dumping has occurred and has been included in the proposed SMMP (see Appendix F of this DEIS).

Zoning

The subject property is located within the Ind C zoning district of the Town of Riverhead (see Figure 5 in Appendix A of this DEIS). As indicated on the Land Use Map (see Figure 4 in Appendix A of this DEIS), the properties to the adjacent east and west are similarly zoned (i.e., Ind C). To the south are properties zoned Light Industry (LI) and the north, on the opposite side of Middle Country Road, are properties within the Rural Corridor (RLC) District, followed by the APZ. An analysis of the zoning within 1,000 feet of the subject property includes entirely Ind C to the east of the subject property on the south side of Middle Country Road, and APZ parcels along the north side of Middle Country Road. To the west of the project site, are Calverton Office (CO)-zoned properties (to the west of the adjacent Ind C zoned parcel) on the south side of Middle Country Road and Hamlet Center (HC) along the north side of Middle Country Road, with Residence B-40 (RB40) zoned properties situated to the north thereof.

As set forth in §301-122 of the Town Zoning Code, the permitted uses of the Ind C zoning district include:

(1) Offices.
(2) Warehouses.
(3) Greenhouses.
(4) Wholesale businesses.
(5) Laboratories, including prototype manufacturing.
(6) Vocational schools.
(7) Golf courses.
(8) Parks and playgrounds.
(9) Equestrian facilities.
(10) Commercial sports and recreation facilities.
(11) Dog and horse training and boarding facilities.
(12) Manufacturing (indoor).

Pursuant to §301-122 of the Town Code, the accessory uses of the Ind C zoning district that are incidental to any of the above permitted uses when located on the same lot, including: *(1) Cafeteria for an office or other building, when contained within the building or ancillary structure on the same parcel, for the purpose of serving employees and their guests.*

The bulk and dimensional requirements associated with the Ind C zoning district are included in

Table 19, below.

Table 19 – Bulk and Dimensional Requirements for Industrial C Zoning District

Dimensional Regulation	Requirement
Minimum Lot Area:	80,000 SF
Minimum requirements:	
Lot width	300 feet
Front yard	30 feet
Side yard	30 feet
Both side yards	60 feet
Rear yard	50 feet
Lot, Yard and Bulk Requirements	20% of shall be contiguous open space areas which shield views of the development from arterial roads
Building coverage (footprint) (without sewer)	40%
Impervious Surface	60%
Building height	30 feet
Design Standards	Development of multiple buildings in the Industrial C district shall be planned in a campus layout
	Continuous sidewalks, and bike racks close to business entrances shall be provided for properties fronting Route 25
	Dumpster areas shall be screened by wood fences or landscaping
	20 feet of planting buffering along frontage and 10 feet planting buffer along all other property lines
Parking Standards	Planted berms shall be used to screen automobiles from public R.O.W.
	Off-street parking prohibited in front yard, within 20 feet of side, and 10 feet of rear yard
Dumpsters	Dumpster screening of 5 feet minimum/6 feet max height

Relevant Planning Documents

Town of Riverhead Comprehensive Plan dated November 2003

In 2003, the Town of Riverhead updated its comprehensive plan and, as part of this effort, created a Proposed Land Use Plan which incorporates all the goals, policies and recommendations of the Town Comprehensive Plan elements (i.e., agriculture, natural resources conservation, scenic and historic resources, business districts, economic development, housing, transportation, utility service, parks and recreation, and community facilities) into a single, coherent plan for development and conservation. The updated Town Comprehensive Plan proposed several new commercial zoning districts, lower density residential districts, an industrial/recreational district, an agricultural protection zone, an institutional district, and a multifamily residential overlay zone. The "Proposed Land Use Plan modifies existing zoning patterns and boundaries to bring about farmland and open space preservation, and create compact, well planned pedestrian and transportation-friendly communities" (page 2-5).

Land Use

Pursuant to the Proposed Land Use Plan (Figure 2-1 in the Town Comprehensive Plan), the subject property is planned for Industrial/Recreation (I/R) Use (see Figure 3 in Appendix A of this DEIS), as stated in Sections 1.3.2 and 2.1.2 of this DEIS. The purpose of the I/R, as excerpted from Table 2-14 in Chapter 2 (Land Use Element) of the Town Comprehensive Plan, is to "allow a mix of light industrial and commercial recreation uses in the area between Enterprise Park and the terminus of the LIE." The preferred industrial land uses in the I/R include offices, warehouses, light manufacturing, mechanical contractor's offices (e.g., construction, plumbing etc.), wholesale and outdoor storage as an accessory use (page 2-20).[10]

Relevant to the subject property, is its proposed light industrial use. Section 2.5 sets forth the goal and policy for land use, which are summarized below.

- *Goal 2.1: Adopt a land use plan for Riverhead that embodies the goals and policies of the Comprehensive Plan.*
  - *Policy 2.1A: Adopt Figure 2-1 as the basis and implementing authority for the Town's new zoning map and update the Town's zoning ordinance to include the new zoning districts shown on Figure 2-1 and described in this Element.*

Scenic and Historic Resources

Chapter 5 (Scenic and Historic Preservation Element) of the Town Comprehensive Plan addresses the scenic and historic resources in the Town. The subject property is not on the list of Town Landmarks and historic districts.[11] Furthermore, based upon the Town's website and publicly available information, the subject property is not within a designated scenic corridor.

Economic Development

Within Chapter 7 (Economic Development Element) of the Town Comprehensive Plan, the vision statement expressed that "…Riverhead should continue to pursue a diverse economic base by promoting office and industrial development, agriculture, retail development, and entrepreneurial and small-business activity in appropriate locations. Economic development pursuits must be balanced with the conservation policies expressed in the other sections of this plan, particularly with regard to historic, scenic, and natural resources." Section 7.4 addressed the demand for office and industry in the Town of Riverhead. Of importance are the noted reasons for the increased demand:

- *First, as land becomes more scarce and expensive in Towns to the west, more businesses will look to Riverhead for space.*

[10] It is noted that several zoning designations were applied to the I/R area, including Industrial-A, Industrial-B and Industrial C which closely follow the intent, purpose and permitted uses within of the planned I/R land use.
[11] Town of Riverhead, Landmarks Preservation Committee. *Riverhead Town Landmarks and Historic Districts*. Retrieved from: https://www.townofriverheadny.gov/files/documents/document958100405032717.pdf. Accessed March 2021.

- *Second, although Riverhead is about 15 to 20 miles east of the more developed areas of the County, the Central Pine Barrens region restricts development for much of that stretch. This means that despite Riverhead's distance from existing business centers, it is the next major location available for significant office and industrial growth.*
- *Third, Riverhead has a great deal of developable land available for office and industrial development, particularly in Enterprise Park and adjacent areas.*
- *Fourth, the Long Island Expressway (LIE) provides excellent accessibility to the Town's major office and industrial locations.*

The following are the relevant office and industry goals and policies from Chapter 7 of the Town Comprehensive Plan.

- *Goal 7.10: Strengthen the industrial zoning outside the Enterprise Park to be more responsive to market demands and surrounding uses.*
  - *Policy 7.10E: Continue to allow and encourage a mix of office and industrial development in the industrial zones.*
- *Goal 7.11: Ensure that office and industrial development fits into the Town's rural character.*
  - *Policy 7.11A: Increase the minimum lot size for development in the industrial zones, in order to reserve those areas for large-scale development and to require greater open space preservation.*
  - *Policy 7.11G: Adopt design guidelines for office and industrial development in the industrial zones, as well as roadways and parking lots in those areas.*

Transportation

Chapter 9 addresses the Transportation element within the Town of Riverhead. As excerpted from the Vision Statement (p. 9-1), "Route 25 and Route 58 should remain Riverhead's primary east-west traffic corridors, while other east-west roads are discouraged from being used as bypass routes. Road improvements throughout Riverhead should be undertaken in a manner that is sensitive to the Town's residential neighborhoods and its historic, scenic, and natural resources." It is recognized in the Town Comprehensive Plan that "as industry, commerce, housing, and tourism grow in Riverhead, it is inevitable that demands on the transportation system will increase. As is the case on the rest of Long Island and indeed much of the country, auto travel is the mode of choice for an overwhelming majority of travelers, meaning that Riverhead's roadway system will feel the most immediate impacts of growing travel demands." (p. 9-2)

Relevant to the subject property is its frontage along NYS Route 25 and situated between the intersections of Fresh Pond Avenue to the west (unsignalized intersection) and Edwards to the east (signalized intersection). Section 9.3 sets forth the goals and policies for the transportation corridor, which are summarized below.

- *Goal 9.3: On an ongoing basis, work to reduce traffic congestion on roads throughout Riverhead.*
  - *Policy 9.3A: Encourage NYSDOT to conduct a study of the Route 25 corridor between the Brookhaven border and the LIE.*

- *Policy 9.3C: Continue to assess the traffic impacts of new development, and require developers to provide roadway improvements and/or other transportation amenities to mitigate those impacts.*
- *Policy 9.3D: Continue to consider road improvement projects Townwide on a case-by-case basis, in order to address issues of traffic congestion, but avoid road widening along scenic corridors.*
- *Policy 9.3E: Through the site plan review process, require cross access agreements and linked parking lots between new commercial development and adjacent commercial sites.*

- *Goal 9.4: Provide a Townwide roadway system that ensures the safety of cars, trucks, buses, pedestrians, and bicycles.*
  - *Policy 9.4A: Work with State and County agencies to improve roads and intersections with safety deficiencies, while being respectful of adjacent neighborhoods and businesses and helping preserve Town's natural, scenic, and historic resources.*

Section 3.1.2 of this DEIS evaluates the consistency of the proposed action with the relevant goals and policies of the Town Comprehensive Plan.

Long Island North Shore Heritage Area Management Plan, 2005

The subject property is located within the Long Island North Shore Heritage Area. The Long Island North Shore Heritage Area Management Plan ("Heritage Plan"), recognizing the rich diversity of natural and manmade resources that comprise northern Long Island, was developed by Long Island North Shore Heritage Area Planning Commission with the intent of:

(1) Preserving the historic qualities and heritage of the geography;
(2) Providing protection for various environment, maritime, and natural resources; and
(3) Enhancing the cultural identity and economic vitality of the region.

The defined "heritage area" within the Heritage Plan contains all or portions of 65 separate cities, towns, and villages within both counties of Long Island (i.e., Suffolk and Nassau counties), and is generally identified as that area north of either NYS Route 25 or the LIE (whichever is further south) within the two aforementioned counties, as well as the entirety of the Long Island North Fork. This heritage area geography contains the entirety of the Town of Riverhead, in which the subject property is located.

In order to achieve this previously articulated intent, the Heritage Plan contains three distinct elements, including: (1) a management plan, which "sets forth a framework with specific actions and policies for achieving goals and objectives" (pg. 7); (2) a strategic plan that "defines and organizes a vision for the future of the region" (pg. 8); and (3) an implementation plan, including "specific recommendations…to support the region and its individual communities." The Implementation Plan includes "sources of potential support and funding, including community capacity building, traditional economic revitalization sources and grant sources…" (pg. 8)

Prior to the discussion of these three components, the Heritage Plan contains an overview section that articulates five guiding principles for the plan components, including: (1) protection (preservation and

revitalization strategies); (2) connection (weaving together the various resources of the Heritage Plan geography into a cohesive whole); (3) package (identification of core themes that define the Heritage Plan area for coordination among stakeholders); (4) promotion (advance appreciation of the Heritage Plan area's resources); and (5) partnerships (identify unique partnerships, collaborators, programs, and initiatives to sustain the various resources of the Long Island North Shore). These principles inform the various objectives and recommendations of the component plans of the Heritage Plan, the pertinence of which to the subject property and proposed action is evaluated in the Potential Impacts subsection of this DEIS (Section 3.1.2).

Long Island Region Opportunity Zone

The subject property is located within a federal Opportunity Zone (Long Island Region) community development program (see Figure 6 in Appendix A of this DEIS). Opportunity Zones were created under the Tax Cuts and Jobs Act of 2017 (Public Law 115-97) and are a tool used to stimulate economic development and job creation, by incentivizing long-term investments in low-income neighborhoods. Opportunity Zones are defined by individual census tract as economically distressed communities, nominated by each state's governor, and certified by the United States Secretary of the Treasury.[12] Opportunity Zones have are intended to encourage private investment in low-income urban and rural communities in exchange for incentives through federal funding and tax deferments.

Section 3.1.2 of this DEIS evaluates the consistency of the proposed action with the goals and objectives of the Opportunity Zone.

3.1.2 Potential Impacts

Land Use

The proposed development would convert the subject property from vacant, former agricultural land to a mix of 75 percent light industrial warehouse uses and 25 percent indoor manufacturing uses. A cafeteria/commissary for all tenants is also incorporated into the proposed design, which is anticipated to reduce traffic leaving and entering the project site for meals. Phase 1 of the proposed development would include the first 226,469 SF of the overall 412,629 SF industrial park and would consist of four (4) buildings to be occupied by various tenants, as well as a 1,500 SF cafeteria as an ancillary offering intended to serve employees of the various tenants. Phase 2 would include remaining 186,160 SF and would consist of the remaining four (4) buildings.

Two buildings to be constructed during Phase 1 of the proposed development would be located on the west side of the subject property and divided into 10 spaces within each building (i.e., Building 1 and Building 3) of various sizes for tenants (see Sheet A1.1 of Architectural Building Plans and Elevations in Appendix C of this DEIS). The remaining two buildings to be constructed during Phase 1 of the proposed development would be located on the east side of the subject property (i.e., Building 2 and Building 4).

[12] United States Department of Housing and Urban Development. *Opportunity Zones.* Retrieved from: https://opportunityzones.hud.gov/. Accessed January 2021.

Building 2 would be divided into six spaces of various sizes for tenants (see Sheet A1.1 of Architectural Building Plans and Elevations in Appendix C of this DEIS). The north side of Building 2 would have an additional 1,500 SF space for the cafeteria/commissary. Building 4 would be divided into six (6) spaces with spaces of various sizes for tenants. The remaining four (4) buildings would be constructed during Phase 2 of the proposed development. Two buildings would be located on the west side of the subject property (i.e., Building 5 and Building 7). Building 5 would be divided into 10 spaces and Building 7 would be divided into nine (9) spaces of various sizes (see Sheet A1.2 of Architectural Building Plans and Elevations in Appendix C of this DEIS). The remaining two buildings to be constructed during Phase 2 of the proposed development would be located on the east side of the subject property (i.e., Building 6 and Building 8). Building 6 would be divided into five (5) spaces and Building 8 would be divided into four (4) spaces (see Sheet A1.2 of Architectural Building Plans and Elevations in Appendix C of this DEIS).

Each building is proposed as a multi-tenant occupancy with user types differing on the east and west sides. The eastern buildings are proposed to be developed with loading docks capable of handling tractor trailers, while the western buildings envision users requiring box trucks. All proposed buildings would be equipped with highspeed loading dock doors and seals.

Access is proposed via one (1) full-movement driveway along Middle Country Road, with signalization of the project site driveway. The proposed site plan includes a total of 101 loading spaces to be located on the east and west sides of the property (i.e., between the building and property line) with approximately 40 to 44 feet of landscape buffers in the side yards. All passenger vehicle parking would be situated in the central portion of the property, between the two rows of buildings. The parking field would be separated by a 26-foot width, two-way drive aisle.

As set forth on the Overall Site Plan (see Sheet C-3 in Appendix C of this DEIS), the Town of Riverhead ordinance requires one parking stall per 400 SF of gross floor area for an industrial/indoor manufacturing and one parking stall per 1,000 SF up to 5,000 SF of floor area and one additional space for each additional 10,000 SF of gross floor area for a warehouse. Accordingly, the proposed action requires 324 parking stalls. The proposed site plan includes 326 total parking spaces, inclusive of 16 ADA accessible parking spaces. As such, the proposed site plan complies with the Town parking requirement for the proposed design. All parking spaces would be 10 feet wide by 20 feet deep in accordance with the Town ordinance and industry standards.

From a land use perspective, the proposed action is consistent with the underlying intent of the prevailing zoning for light industrial land uses (see Zoning in this section of the DEIS below). The surrounding area can be generally characterized by large lot commercial and retail uses on the south side of Middle Country Road to the east of the project site, interspersed with agricultural and residential land uses on the north.

The width of the property is limited to 511± feet, while the depth of the property (2,510± feet) allows for the bulk of the development to be situated out of the roadway corridor viewshed. The proposed land use, as explained in the Consistency with Land Use Plans in this section of the DEIS below, responds to the stated demand for industrial development in the Town of Riverhead. This is further supported by the market and demand data provided by the Fundamental Market Study prepared by BBG Inc. (see Appendix D of this DEIS). Finally, the proposed land use is consistent with the economic goals for the federal Opportunity Zone. Overall, given that the proposed land use is consistent with the prevailing

zoning, Town Comprehensive Plan, and the Opportunity Zone, while also affording a site geometry that will serve to limit views of the development from Middle Country Road, no significant adverse impacts would occur from the proposed development.

Zoning

As excerpted from §301-121 of the Town Zoning Code, the intent of the Ind C zoning district is "*…to allow a mix of light industrial, warehouse development, and office campuses in the area between Enterprise Park and the terminus of the Long Island Expressway. The Ind C Zoning Use District is intended for moderate-sized businesses generally defined as those with less than 40 employees. In addition, the district allows and encourages commercial recreation businesses. The use of generous landscaping and open space buffers is intended to help protect the rural appearance and minimize views of development from the expressway and arterial roads*." Among the 12 permitted uses in the Ind C zoning district, as set forth in §301-122.A, are warehouses and manufacturing (indoor). The Ind C zoning district also permits the proposed accessory use for a "Cafeteria for an office or other building, when contained within the building or ancillary structure on the same parcel, for the purpose of serving employees and their guests." As such, the proposed action is consistent with the permitted and accessory uses in the Ind C district.

A consistency analysis with the bulk and dimensional requirements, and supplementary guidelines, for development within the Ind C zoning district is included in the Bulk Zoning Table on the Overall Site Plan (see Sheet C-3 Appendix C of this DEIS) and below.

Table 20 – Consistency with Bulk and Dimensional Requirements for Ind C Zoning District

Dimensional Regulation	**Requirement**	**Proposed Action**
Minimum Lot Area:	80,000 SF	1,317,884± SF
Minimum requirements:		
Lot width	300 feet	511.18± feet
Front yard	30 feet	124.7± feet
Side yard	30 feet	100 feet
Both side yards	60 feet	221 feet
Rear yard	50 feet	195.2± feet
Lot, Yard and Bulk Requirements	20% of shall be contiguous open space areas which shield views of the development from arterial roads	23.19±-percent of landscape area with front yard landscape buffer. Open landscape provided. Dense landscape buffer in front yard to shield development provided
Maximum permitted dimensions:		
Building coverage (footprint) (without sewer)	40% (527,154 SF)	31.31±-percent (412,629 SF)
Impervious Surface	60% (790,730 SF)	71.07±-percent* (936,645 SF)
Building height	30 feet	29± feet
Supplementary Guidelines		
Design Standards	Development of multiple buildings in the Industrial C district shall be planned in a campus layout	Campus layout achieved with individual buildings separated by pervious pavers, sidewalks, landscaped parking areas and separation of truck and passenger vehicle areas.

Dimensional Regulation	Requirement	Proposed Action
	Continuous sidewalks, and bike racks close to business entrances shall be provided for properties fronting Route 25	Continuous sidewalks and bike racks provided
	Dumpster areas shall be screened by wood fences or landscaping	Dumpsters will be screened by 6 feet high wooden stockade fence enclosures
	20 feet of planting buffering along frontage and 10 feet planting buffer along all other property lines	70 feet minimum planted buffer along front yard, 14.2± feet minimum buffer on side yards, and 31.9± feet minimum buffer in rear yard
Parking Standards	Planted berms shall be used to screen automobiles from public R.O.W.	Landscape and planted berm provided
	Off-street parking prohibited in front yard, within 20 feet of side, and 10 feet of rear yard	No parking in front yard provided 20 feet or greater from proposed parking to side yard property No parking in rear proposed
Dumpsters	Dumpster screening of 5 feet minimum/6 feet max height	Dumpsters will be screened by 6-foot high wooden stockade fence enclosures

*Variance Required.

As noted above, the proposed development would exceed the maximum impervious surface area permitted in the Ind C district by 11.07 percent or 145,915 SF. As such, an area variance is being requested from the Town of Riverhead Board of Zoning Appeals (BZA) for the additional impervious surface. An analysis of the bulk and dimensional requirements set forth in §301-123, as well as the supplementary guidelines set forth in §301-124 for development in the Ind C zoning district are included below.

§301-123 - Lot, yard, bulk and height requirements.

A. No buildings shall be erected nor any lot or land area utilized unless in conformity with the Zoning Schedule incorporated into this chapter by reference and made a part hereof with the same force and effect as if such requirements were herein set forth in full as specified in said schedule, except as may be hereafter specifically modified.

As indicated in Table 20, above, the proposed action complies with the bulk and dimensional requirements for developments within the Ind C zoning district, with exception to the proposed impervious coverage, which exceeds the maximum 60 percent requirement by 11.07 percent (i.e., 71.07 percent). The additional 11.07 percent of impervious surface area (inclusive of buildings and pavement) is due to the pavement area necessary for the truck circulation and turning movements. It is noted the building coverage is less than the 40 percent permitted, with 31.31 percent proposed. As part of the proposed action, an area variance is being requested from

the BZA for the additional impervious surface and a consistency analysis with such is presented in this section of the DEIS, below.

B. *In order to foster environmental conservation as well as preservation of the Town's scenic and rural quality, properties shall provide attractively landscaped contiguous open space areas, equal to at least 20% of the lot area, that shield views of the development from arterial roads and the Long Island Expressway. Preference is given to preservation of existing habitat (such as meadows or forests) rather than clearance and creation of new habitat. The open space should serve to provide on-site stormwater management.*

As indicated in the proposed Landscape Plans (Sheets C-19 through C-23), the proposed action includes generous landscaping along the front, side and rear yards, as well as contiguous open space in accordance with the noted intent of the Ind C zoning district. As shown in Table 20**Error! Reference source not found.**, above, the proposed landscape design exceeds the minimum 20-foot front yard landscape requirement with a minimum 70-foot planting buffer along the entire frontage. As described in Section 1.2.1 of this DEIS, the planting buffers within the side yards would be between 40 feet and 44 feet. It is noted that the side yard planting buffer east of the access road for STP maintenance vehicles would be 14.2± feet and a 32-foot buffer would be provided near the proposed dumpster locations. Further, approximately 23.19 percent of the property would be contiguous landscaping, which exceeds the minimum requirement of 20 percent. As such, the extensive front and rear yard landscaping and buffers would effectively screen the development from the corridor traffic along NYS Route 25 and the EPCAL walking trail, respectively, while the minimum required landscaping along the side yards would screen the development from the adjacent land uses.

The proposed action also includes the construction of a recharge basin in the southern portion of the subject property. The recharge basin is part of the continuous open space area and would serve to provide stormwater management and recharge on-site.

§301-124 – Supplementary guidelines.

In addition to the bulk and dimensional requirements, development within the Ind C zoning district is subject to supplementary guidelines which include design and parking standards. The proposed action's consistency with the supplementary guidelines, as set forth in §301-124 of the Town Code, are provided below:

A. *Design standards.*

(1) Developments of multiple buildings in the Ind C District shall be planned in a campus layout.

The project site's geometry with 2,510± feet in lot depth and 511± feet in lot width results in a layout that is linear and symmetrical, but the proposed design seeks to achieve a campus layout with eight individual buildings of varying sizes, with an on-site cafeteria/commissary for tenant use. Pervious pavers in between each set of buildings have been incorporated into the proposed design. Interior parking areas have been designed with a landscaped drive aisle and landscaped islands to create separate parking fields of no more than 50 spaces. Interior sidewalks have also

been included on the proposed plan to create for safe pedestrian movements. Truck activity, including loading and unloading areas, as well as drive aisles, are proposed only along the property perimeter. Overall, the campus layout is achieved.

(2) Continuous sidewalks, off-street transit stops (where routes exist or are planned) and bike racks close to business entrances shall be provided for properties fronting Route 25 or other major arterial street.

The proposed development includes a continuous four (4)-foot concrete sidewalk along the project site frontage on Middle Country Road and along the east side of the proposed site access driveway. A six (6)-foot wide crosswalk would also be placed in front of the site access along Middle Country Road. Interior to the project site, the proposed design includes sidewalks along the sides of the proposed buildings facing the center drive aisle. Also, bike racks would be installed along the north side of each building within the central drive aisle. Thus, the proposed action is consistent with this design standard.

(3) Signage shall be provided in accordance with Article XLVIII, Signs, of this chapter.

As shown on the Overall Site Plan (see Sheet C-3 in Appendix C of this DEIS), the proposed freestanding sign would be located toward the northwest side of the subject property fronting Middle Country Road and would be setback a minimum of 20 feet from the front property line and a minimum of 25 feet from the side yard. The proposed freestanding sign would have a maximum area of 32 SF. As such, the proposed action is consistent with §301-249C. of *Article XLVIII* of the Town Code.
The proposed action would also install wall mounted signs along the proposed buildings facing the center drive aisle. The proposed wall signs would include "No Parking Anytime" and "Reserved Parking & Van Accessible" in the appropriate locations. The sign dimensions would be designed in accordance with the sizing limitations. As such, the proposed action is consistent with §301-250F. of *Article XLVIII* of the Town Code.

Lastly, all construction signage would be designed and placed on-site in accordance with the provisions of §301-251C. of *Article XLVIII* of the Town Code. Refer to discussion below of the proposed action's compliance with *Article XLVIII* of the Town Code.

(4) Buffering and transitions.

(a) Trash/dumpster areas shall be screened by wood fences or landscaping, or a combination thereof, pursuant to § 245-8.

The proposed development would include eight (8) dumpster enclosures appropriately located for throughout the project site for convenient access by tenants. All dumpster enclosures would be screened by a six (6) foot high wooden stockade fence.

(b) Along borders with public streets, buffer plantings of a minimum twenty-foot depth shall be provided. Along property lines shared with Enterprise Park and other properties, buffer

plantings of a minimum ten-foot depth shall be provided. Buffer plantings shall minimize views of paving and buildings from public streets and from Enterprise Park.

The subject property borders a public road only on its north side (frontage) at NYS Route 25. As indicated on the proposed Landscape Plans (Sheets C-19 through C-23), a minimum front yard landscape buffer of 70 feet along the northeast portion and 130 feet along the northwest portion of the subject property would be provided. The planting buffers within the side yards would be between 40 feet and 44 feet. It is noted that the side yard planting buffer east of the access road for STP maintenance vehicles would be 14.2± feet and a 32-foot buffer would be provided near the proposed dumpster locations. The rear yard would include a minimum of 31.9 feet of planting buffers Accordingly, the proposed landscape design would effectively screen the development from viewers along NYS Route 25 and the EPCAL walking trail, respectively, while the minimum required landscaping along the side yards would screen the development from the adjacent land uses. Renderings of the proposed development have also been prepared, and included in Appendix M of this DEIS, to illustrate the views from the north and south and are discussed in Section 3.3 of this DEIS.

B. Parking standards

(1) The number of off-street parking spaces in the Ind C Zoning Use District shall be provided in accordance with § 301-231, Off-street parking, of this chapter.

The Town of Riverhead ordinance requires one (1) parking stall per 400 SF of gross floor area for a manufacturing establishment and one (1) parking stall per 1,000 SF up to 5,000 SF of gross floor area plus one (1) parking stall per additional 10,000 SF of gross floor area for a warehouse. As such, the proposed development requires 324 parking stalls. The proposed site plan includes 326 total parking spaces, inclusive of 16 ADA accessible parking spaces which meets the Town's parking requirement (see the Parking Calculations table included on Sheet C-3 of the Overall Site Plan in Appendix C of this DEIS). As such, the proposed development complies with the parking standard.

(2) Planted berms shall be used to screen the view of automobiles from public roadways.

The proposed landscape design includes one (1) three-foot high berm on the northwest portion of the project site with a 130-foot vegetative buffer and one (1) three-foot high berm on the northeast portion of the project site with a minimum 70-foot vegetative buffer. The use of generous landscaping and open space buffers along the subject property's frontage is intended to protect the rural appearance and minimize views of the proposed development from NYS Route 25.

(3) Off-street parking is prohibited in front yards and within 20 feet of side property lines and within 10 feet of rear property lines.

No parking is proposed in the front or rear yards. All parking to be located along the side yards would be greater than 40 feet from the property lines, as the planting buffers within the side yards would be between 40 feet and 44 feet. It is noted that the side yard planting

buffer east of the access road for STP maintenance vehicles would be 14.2± feet and a 32-foot buffer would be provided near the proposed dumpster locations; however no parking is proposed in these areas. As such, the proposed action complies with this standard.

(4) In order to soften the appearance of parking lots, large areas of surface parking should be broken up by rows of landscaping no less than 10 feet in width, in order to create parking fields of no more than 50 spaces each. Landscaping shall include ground cover, ornamental grasses, or low shrubs. This landscaping requirement is in addition to the twenty-percent parcel-wide landscaping mentioned above.

As illustrated on the Proposed Landscape Plan (see Sheets C-19 through C-23), the center drive aisle would be landscaped and planted islands would be placed throughout the parking areas to separate and soften the hardscape. The required planting of a minimum of 10-feet in width is provided throughout the center drive aisle such that the parking spaces are broken up to create parking fields of no more than 16 parking spaces in a single area. The proposed landscaping islands would include shade trees (i.e., Skyline Thornless Honey Locust *[Gleditsia triacanthos inermis 'skycole' TM]*) and evergreen shrubs (i.e., Blue Chip Juniper *[Juniperus horizontalis 'blue chip'*]). The installation of landscaped islands near the proposed parking spaces is in addition to the 23.19 percent of contiguous landscaping. As such, the proposed action complies with this standard.

(5) In order to provide recharge of the groundwater basin and minimize runoff, at least one of the following stormwater management techniques shall be used in parking lots where underlying soils support infiltration of precipitation to the groundwater:

(a) Where sanding and salting are not used in the winter, low-traffic or seasonal parking overflow areas of the parking lot shall be surfaced with porous pavement or gravel.
(b) Landscaped areas of the parking lot shall be sited, planted, and graded in a manner to provide infiltration and detention of runoff from paved areas.

All landscaped areas within the center drive aisle would be graded and planted in a manner that provides infiltration and detention of runoff from the paved parking areas. It is also noted that pervious pavers in between each set of buildings have been incorporated into the proposed design. It is further noted that percolation tests were performed which indicated that on-site soils have adequate drainage capacity (see Appendix J of this DEIS). Overall, the proposed drainage design is capable of accommodating stormwater runoff from the proposed parking areas.

Overall, the proposed site plan complies with the design and parking standards set forth in Section 301-124 of the Town Code.

§245-8 – Dumpsters

As the proposed action involves the use of dumpsters for discarded solid waste to be generated from the proposed industrial use, the proposed action's consistency with the dumpster guideline, as set forth in Section 245-8 of the Town Code is provided below:

> *All dumpsters shall be fully enclosed by an appropriate screening enclosure of no less than five feet and no more than six feet in height. Said dumpster shall be equipped with a lid and shall be of durable construction. Said lid shall be closed and locked when not physically in use. In addition, the fence enclosure shall meet all of the fence specifications as set forth by the Riverhead Town Architectural Review Board. All enclosures will remain in working condition and must function properly at all times. All dumpsters in use before the effective date of this article shall be in compliance with said specifications set forth within six months of the effective date of this article. Site plan review may be waived if the enclosure meets all requirements set forth by the Architectural Review Board. All application forms shall be received by the Building Department of the Town of Riverhead.*

As indicated on the proposed site plan, there would be a total of eight (8) dumpster enclosures throughout the project site. Two (2) enclosures would be located on the northern portion of the subject property, north of Buildings 1 and 2. These enclosures would each have two (2) individual dumpsters, each sized for six to eight CY of solid waste material. Each of the remaining six (6) enclosures would include four (4) individual dumpsters each, sized to accommodate six to eight CY of solid waste material. These six (6) enclosures would be located between Building 1 and Building 3, between Building 2 and Building 4, between Building 3 and Building 5, between Buildings 4 and 6, between Building 5 and Building 7, and between Building 6 and Building 8. Overall, the eight (8) enclosures with 28 dumpsters would accommodate between 168 and 224 CY of material on-site. Bins for recycling and cardboard would be included within the dumpster enclosures. Each of the eight (8) dumpster enclosures would be screened by a six (6) foot high wooden stockade fence. It is expected that all solid waste would be picked up from the development twice per week or as necessary, to ensure a properly maintained site. As such, the proposed action is consistent with this provision of the Town Code.

Chapter 301 – Part 3 – Supplementary Regulations

In addition to the bulk and dimensional requirements and the supplementary guidelines for Ind C, the proposed development is subject to supplementary regulations. The proposed action's consistency with the relevant supplementary regulations, as set forth in Article XLIX, *Exterior Lighting*, Article LIIB, *Water Conservation in Landscaping* and Article XLVII, *Signs*, of the Town Code, are provided below.

<u>Article XLIX, Exterior Lighting</u>

<u>Town Code Section 301-256 – Purpose.</u>

As indicated in Section 301-256, the "general purpose of this article is to protect and promote the public health, safety and welfare of the residents of Riverhead, as well as preserve the quality of life, retain the

rural character of Riverhead and afford the public the ability to view the night sky, by establishing regulations and a process for review of exterior lighting. This article establishes standards for exterior lighting in order to accomplish the following:

A. To provide safe roadways for motorists, cyclists and pedestrians;
B. To protect against direct glare and excessive lighting;
C. To ensure that sufficient lighting can be provided where needed to promote safety and security;
D. To prevent light trespass in all areas of the Town;
E. To protect and reclaim the ability to view the night sky;
F. To allow for flexibility in the service of lighting fixtures;
G. To provide lighting guidelines;
H. To provide assistance to property owners and occupants in bringing nonconforming lighting into conformance with this article;
I. To promote the conservation of energy for exterior lighting;
J. To reduce the impact of artificial lighting on human health, flora, fauna, and the environment."

The proposed site lighting would consist of light poles and wall-mounted building fixtures (see Lighting Plans, Sheets C-24 through C-28 in Appendix C of this DEIS). The proposed site lighting has been designed to illuminate the subject property in an efficient manner that would minimize nuisances from light intensity, glare and light trespass. See below for an in-depth discussion of the proposed lighting plan in accordance with §301-259 of the Town Code.

<u>Town Code Section 301-259 – Exterior lighting standards.</u>

A. General standards.
(1) All exterior lighting shall be designed, located and lamped in order to prevent:
(a) Overlighting;
(b) Energy waste;
(c) Glare;
(d) Light trespass;
(e) Skyglow.

(2) All nonessential exterior commercial and residential lighting is encouraged to be turned off after business hours and/or when not in use. Lights on a timer are encouraged. Sensor-activated lights are encouraged to replace existing lighting that is desired for security purposes.

(3) Canopy lights, such as service station lighting, shall be fully recessed and full cutoff luminaries so as to ensure that no light source is visible from or causes glare on public rights-of-way or adjacent properties.

(4) Area lights. All area lights shall be full-cut-off-type luminaires.

The proposed site lighting would consist of only light poles and mounted building fixtures. As illustrated on the proposed Lighting Plans (see Sheets C-24 through C-28 in Appendix C of this DEIS), the proposed lighting has been designed, located, lamped, directed and maintained in

order to prevent those lighting impacts as listed above. The proposed area light poles would be installed along the east and west sides of the site access point from Middle Country Road, along the east side of the subject property between the proposed landscaped buffers and the eastern fire lane as well as two area light poles at the northside and southside of the subject property between the western proposed landscaped buffers and the western fire lane. The remainder of the project site would be illuminated with wall-mounted building fixtures. A photometric analysis of each proposed lighting pole was performed as illustrated on the proposed Lighting Plans and indicates there would be no off-site or trespass lighting with the proposed lighting in place. All lamp poles along the internal drive aisles and adjacent to surface parking areas as well as all wall-mounted, building fixtures would include a shielded LED luminaire to direct all light downwards with no upward glare. The lighting system would be designed to comply with the above provisions. As such, the proposed action is consistent with this provision of the Town Code.

B. Types of luminaires.

(1) All exterior lighting, with an exemption granted to municipal recreational fields, rated to be lamped at greater than 1,800 lumens (100 watts incandescent) shall use full cutoff luminaires as determined by photometry test or certified by the manufacturer and installed as designed with the light source directed downward.

(2) All exterior light fixtures rated to emit 1,800 lumens (100 watts incandescent) and less, regardless of the number of lamps, shall use fully shielded fixtures (See Figure 1.) and shall be installed as designed (See Figure 1.).

As noted above, the proposed lighting fixtures would include a shielded LED luminaire to direct all light downwards with no upwards glare. As shown on the Overall Lighting Plan (see Sheet C-24 in Appendix C of this DEIS), the proposed type of lighting fixtures to be installed on the light poles complies with the fixtures illustrated on Figure 1 of this provision. As such, the proposed action is consistent with this standard of the Town Code.

D. Placement and height of luminaires.

(1) Luminaires, exclusive of municipal streetlighting, and municipal recreational fields, shall be mounted no higher than 16 feet from the level ground to the lowest light-emitting part of the fixture.

(2) Luminaires on commercially used properties shall be located and shielded in a manner to prevent light projection beyond the property line.

(4) Sign lighting. Lighting shall be mounted on the top of the sign, directed downward, and positioned and shielded so that the light source is not visible. No individual lamp shall exceed 1,000 lumens. Mounting height of lights shall not exceed 16 feet.

The proposed building would include exterior site lighting and wall-mounted fixtures. Based on the proposed Lighting Plan (see Sheets C-24 through C-28), the proposed exterior site lighting would consist of pole-mounted light fixtures at 16 feet in height and equipped with housing shields to direct light downward. The proposed wall-mounted fixtures would be mounted at 16 feet above grade level and equipped with housing shields. All proposed lighting fixtures are would include a shielded LED luminaire to direct all light downwards with no upward glare. It is also noted that all proposed lighting would be dark sky compliant. Thus, the proposed action is consistent with this provision of the Town Code.

E. Illuminance and type of lamp.

(1) Illuminance levels for parking lots, sidewalks, and other walkways affected by side-mounted building lights and freestanding sidewalk lights (not streetlights) shall not exceed illuminance levels listed in the IESNA Recommended Practices, either PR33 or RP20, depending on the application.

(2) Parking lot lighting shall not exceed an overall average illumination as listed on Table 1.

(3) Streetlight luminaires shall be full cutoff luminaires and be lamped with high-pressure sodium or compact fluorescent light source.

(4) All existing and/or new exterior lighting shall not cause light trespass and shall protect adjacent properties from glare and excessive lighting.

As illustrated on the proposed Lighting Plans (see Sheets C-24 through C-28 in Appendix C of this DEIS), the proposed lighting consists of light poles and wall-mounted lighting fixtures. The proposed lighting has been designed, located, lamped, directed and maintained in order to prevent those lighting impacts as listed above. The proposed light poles would be installed along the site access from Middle Country Road as well as on the east side of the property between the proposed landscaped buffers and the eastern fire lane. The remainder of the project site, including all parking areas, would be illuminated with wall-mounted building fixtures.

A photometric analysis of each proposed lighting pole was performed as illustrated on the proposed Lighting Plans and indicates there would be no off-site or trespass lighting with the proposed lighting in place. All light poles along the site access from Middle Country Road and to the east side of the proposed development between the landscape buffers and ester fire lane as well as all wall-mounted, building fixtures would include a shielded LED luminaire to direct all light downwards with no upward glare. The proposed site lighting would be designed to comply with all relevant provisions of the Town Code. As such, the proposed action would be consistent with this provision of the Town Code.

Article LLIB, Water Conservation in Landscaping

Town Code Section 301-283.16 – Water conservation landscape requirements

A. *All applicants seeking a permit or approval of a site improvements or development project identified in § 301-283.15A above shall provide a landscape design to include and be installed meeting the following criteria:*

(1) *All landscape designs shall employ best management practices and include a minimum of 15% of the total landscaped area xeriscape or drought-tolerant or low-water-using plantings of the total landscaped areas; and*

(2) *All landscape designs which include the installation of irrigation system(s), be it at the time of issuance of the building permit or at any and all times after issuance of building permit, shall adhere to the following requirements*

(a) *Low-volume irrigation shall be used in all landscaped areas less than eight feet in width in any direction; mulched areas; areas within 24 inches of a nonpermeable surface unless no runoff occurs or the adjacent nonpermeable surface drains entirely to permeable surfaces capable of admitting and retaining the irrigation runoff; and, on slopes greater than 25% (where "25%" means one foot of vertical elevation change for every four feet of horizontal length), unless an alternative design having the effect of low-volume irrigation (e.g., micro-sprayers) and which will avoid runoff and erosion is approved by the Director of the Planning and Building Department, Planning Board or Town Board; and;*

(b) *Smart irrigation controllers shall be required for all irrigation systems and must be able to accommodate all aspects of the design. Individual controllers irrigating an area of 10,000 or more square feet shall be installed with a rain sensor(s) which shall be properly installed (e.g., in a location suitable for detecting rain without interference from structures and irrigation spray); and*

(c) *Irrigation systems shall not be planned, installed or operated so as to permit water to spray on public sidewalks, paved areas or neighboring parcels. No underground piping shall be laid within the Town highway right-of-way; and*

(d) *Nothing in this section shall be construed to limit, restrict or prohibit irrigation of any sort which is accomplished by obtaining water by means that would not deprive or otherwise retard recharge of the US EPA designated sole source aquifer system under the Safe Water Drinking Act.*

The proposed irrigation system would implement smart irrigation controls to reduce or eliminate the use of the irrigation system during periods of rain. The irrigation system would be installed with a drip line to prevent evaporation as well as rain sensors so as to not go on while it is raining. The proposed irrigation system would not spray water on public sidewalks, paved areas, or neighboring parcels. The proposed landscaping plan would also consist of native and/or drought-tolerant plants and groundcover

to promote water conservation. As such, the proposed action is consistent with this provision of the Town Code.

Article XLVII, Signs

Town Code Section 301-249– Primary sign allowed with permit.

Only one primary sign shall be permitted at each business location or premises. Where feasible, primary signs may be double-sided. Combinations of various types of primary signs shall not be permitted. Secondary signs maybe permitted at the discretion of the Architectural Review Board. Permitted primary signs shall not indicate business hours of operation, telephone numbers, fax numbers, or web addresses. All primary signs must be located on the site facing towards a public right-of-way. Each of the following types of primary signs is allowed by permit from the Town of Riverhead:

C. Freestanding signs (including pole and monument signs).

(1) No freestanding sign shall be permitted on premises where buildings or structures are set back less than 20 feet from the front property line.

(2) The maximum area for such a sign shall be 32 square feet.

(3) Said sign may not exceed 10 feet in vertical height from the grade of the ground surrounding the sign except as otherwise provided in this chapter.

(4) Said sign(s) shall be at least 25 feet from each sideline of the property and at least 15 feet from the front and rear property lines.

(5) Except for the height of a monument sign, any embellishment thereon extending up to 12 inches on any side shall not be considered in determining compliance with the area or size limitation of a sign supported by a monument structure.

As indicated earlier, the proposed freestanding sign would be located toward the northwest side of the subject property fronting Middle Country Road. The proposed freestanding sign would be setback a minimum of 20 feet from the front property line and a minimum of 25 feet from the side yard. The proposed freestanding sign would have a maximum area of 32 SF. As such, the proposed action is consistent with this provision of the Town Code.

Town Code Section 301-250– Secondary signs allowed with permit.

F. Wall sign. Wall signs may be considered secondary signs, provided that:

(1) Such a sign is not located on a facade having any other wall sign.

(2) Such a sign shall not exceed 10% of the wall area, with a maximum permitted area of 150 square feet.

As shown on the Overall Site Plan (see Sheet C-3 in Appendix C of this DEIS), the proposed action would install wall mounted signs along the proposed buildings facing the center drive aisle. The proposed wall signs would include "No Parking Anytime" and "Reserved Parking & Van Accessible" in the appropriate locations. The sign dimensions would be designed in accordance with the sizing limitations. As such, the proposed action is consistent with this provision of the Town Code.

Town Code Section 301-251– Additional sign types requiring permits.

B. Construction signs. One sign shall be permitted to be erected at any construction site, provided that such sign:

(1) Shall not be erected prior to project approval by the Town of Riverhead Building Department.

(2) Shall not be illuminated.

(3) Shall not exceed 32 square feet in area.

(4) Shall display the name(s) of the contractor(s), architect(s), and financing institution(s) connected to development of the site.

(5) Shall be located at least 25 feet from each sideline of the property and at least 15 feet from the front and rear property lines. No such sign shall be placed within a parking lot, roadway, or sidewalk area.

(6) Shall be removed no later than 15 days after completion of the project to which it relates or one year from the date of installation of said sign, whichever occurs first.

All construction signage would be designed and placed on-site in accordance with the above provisions.

Overall, based on the above, as the proposed action is consistent with the relevant zoning provisions of the Town Code for industrial developments, no significant adverse impacts are expected.

Area Variance Consistency Analysis

The proposed action requires an area variance from the Town of Riverhead BZA as the proposed action exceeds the maximum percentage of impervious surfaces. Specifically, the maximum permitted impervious lot coverage is 60 percent and 71.07 percent is proposed.

New York State Town Law Article 16, Section 267-B, sets forth the specific criteria that must be considered by the BZA in its review of and decision on an area variance application. Such determination is required to undertake a balancing evaluation, which takes into "*consideration the benefit to the applicant if the variance is granted, as weighed against the detriment to the health, safety, and welfare of the neighborhood or community by such grant.*" Each of these five criteria and an analysis of the proposed action's consistency therewith, is presented below:

1. ***Whether an undesirable change will be produced in the character of the neighborhood or a detriment to nearby properties will be created by the granting of the area variance.***

The proposed design exceeds the maximum permitted impervious coverage by 11.07 percent, but is below the maximum building coverage (Permitted: 40 percent; Proposed: 31.31 percent), exceeds the minimum landscape requirement (Required: 20% contiguous in front yard; Proposed: 23.19 percent), and provides for greater front, side and rear yard setbacks than what is required (Required Front, Side, and Rear Yards: 30 Feet, 60 Feet Combined, and 50 Feet, respectively; Proposed: 124.7 Feet, 221 Feet, and 195.2 Feet). The requested exceedance of 11.07 percent is to accommodate the perimeter driveways and loading areas for safe truck movements and activity. As noted on the plan, the proposed design seeks to separate passenger vehicles from truck activity with vehicular parking on both sides of the center drive aisle, and truck loading, unloading and access on the east and west sides of the buildings. The proposed plan achieves this design intent while also exceeding all required setbacks such that views of the subject property upon implementation of the proposed development would not be adversely impacted from the surrounding parcels or the Middle Country Road corridor.

As illustrated on the renderings prepared by the project architect (see Appendix M of this DEIS), the proposed buildings would be set back from the roadway to maintain the existing viewshed of open space. The use of generous landscaping and open space buffers is intended to preserve the rural appearance and minimize views into the property from Middle Country Road and adjacent parcels. The size of the property at 1,317,884 SF, which is far greater than the minimum lot area of 80,000 SF, allows for the proposed development to be designed with greater setbacks in order to maintain views and not adversely impact surrounding properties. Finally, all stormwater generation from a nine-inch rain event would be contained and recharged on-site through a system of drainage infrastructure, inclusive of a recharge basin in the rear of the property.

Overall, based on the above, the proposed development would not result in an undesirable change to the character of the neighborhood, nor would there be any detriment to nearby properties with the granting of the requested variance.

2. ***Whether the benefit sought by the applicant can be achieved by some method, feasible for the applicant to pursue, other than an area variance.***

Due to the type of development and the truck activity that is projected to occur on-site, the separation of truck activity and driveways from the passenger vehicles is preferred for safety purposes. The site geometry requires a rather linear and symmetrical development plan that impacts the flexibility of design options for an intended light industrial park. While the variance could be avoided with the elimination of buildings, the overall investment cost does make this a feasible option for the Applicant.

3. ***Whether the requested area variance is substantial.***

The proposed design exceeds the maximum permitted impervious coverage by 11.07 percent, but the property size is over 16 times greater than the minimum permitted (i.e., the subject property is 1,317,884 SF and the minimum lot area permitted is 80,000 SF). A variance of 11.07 percent on an

80,000 SF parcel would be considered substantial and likely prove difficult to meet all required setbacks and contiguous landscape. However, with a site area at over 1.3 million square feet, the requested variance is being sought but the proposed design exceeds all of the minimum setback and landscape requirements and complies with all of the supplementary design standards and guidelines for the Ind C development. As such, this requested variance is not considered substantial.

4. ***Whether the proposed variance will have an adverse effect or impact on the physical or environmental conditions in the neighborhood or district.***

As noted above, the proposed design exceeds the maximum permitted impervious coverage by 11.07 percent in order to accommodate the perimeter driveways and loading areas for safe truck movements and activity. However, the proposed plan is below the maximum building coverage (Permitted: 40 percent; Proposed: 31.31 percent), exceeds the minimum landscape requirement (Required: 20 percent contiguous in front yard; Proposed: 23.19 percent), and provides for greater front, side and rear yard setbacks than what is required (Required Front, Side, and Rear Yards: 30 Feet, 60 Feet Combined, and 50 Feet, respectively; Proposed: 124.7 Feet, 221 Feet, and 195.2 Feet). The proposed buildings would be set back from the roadway and the use of generous landscaping and open space buffers is intended to preserve the rural appearance and minimize views into the property from Middle Country Road and adjacent parcels. All stormwater generation from a nine-inch rain event would be contained and recharged on-site through a system of drainage infrastructure, inclusive of a recharge basin in the rear of the property. Finally, the proposed development includes rooftop solar sized for a 3.245 MW solar array with an output of 2.4 MW to the community solar program. Accordingly, the proposed variance would have no adverse impact on the physical or environmental conditions in this neighborhood or Ind C district.

5. ***Whether the alleged difficulty was self-created; which consideration shall be relevant to the decision of the board of appeals, but shall not necessarily preclude the granting of the area variance.***

As noted above, the site geometry requires a rather linear and symmetrical development plan that impacts the flexibility of design options for an intended light industrial park. Due to the type of development and the truck activity that is projected to occur on-site, the separation of truck activity and driveways from the passenger vehicles is preferred for safety purposes. While the variance is self-created, the design intent for safe movements and separation of truck and passenger vehicle traffic is beneficial.

Overall, based on the above, the granting of the requested variance would not be a detriment to the health, safety and welfare of the community.

Consistency with Relevant Planning Documents

Town of Riverhead Comprehensive Plan, November 2003

As noted in Section 3.1.1 of this DEIS, in 2003, the Town of Riverhead updated its comprehensive plan and, as part of this effort, created a Proposed Land Use Plan which incorporates all the goals, policies and recommendations of the Town Comprehensive Plan elements into a single, coherent plan for development and conservation. The relevant goals and policies of the Town Comprehensive Plan, and the proposed action's consistency therewith is present below.

Land Use

As noted in Section 3.1.1 of this DEIS, Section 2.5 of the Town Comprehensive Plan sets forth the goal and policy for land use, as shown below.

- *Goal 2.1: Adopt a land use plan for Riverhead that embodies the goals and policies of the Comprehensive Plan.*
  - *Policy 2.1A: Adopt Figure 2-1 as the basis and implementing authority for the Town's new zoning map, and update the Town's zoning ordinance to include the new zoning districts shown on Figure 2-1 and described in this Element.*

  Pursuant to the Proposed Land Use Plan as set forth in the Town Comprehensive Plan, the subject property is planned for IR Use, as indicated in Section 3.1.1 of this DEIS (see Figure 3 in Appendix A of this DEIS). As indicated in Table 2-14 of the Town Comprehensive Plan, the purpose of the IR area is to "allow a mix of light industrial and commercial recreation uses in the area between Enterprise Park and the terminus of the Long Island Expressway." Furthermore, as noted in Section 2.1.1 of this DEIS, the Town Comprehensive Plan states, "the Proposed Land Use Plan sets a precedent for future development because once it is adopted it will become the basis and implementing authority for the Town's new zoning map (page 2-2)." As the proposed action would convert the subject property to the permitted light industrial use (i.e., warehouse and indoor manufacturing), it is consistent with the preferred land use and zoning, as set forth in the Town Comprehensive Plan and the current Town Zoning Map (2015), respectively.

Economic Development

As noted in Section 3.1.1 of this DEIS, Chapter 7 (Economic Development Element) of the Town Comprehensive Plan included a vision statement that expressed "…*Riverhead should continue to pursue a diverse economic base by promoting office and industrial development, agriculture, retail development, and entrepreneurial and small-business activity in appropriate locations. Economic development pursuits must be balanced with the conservation policies expressed in the other sections of this plan, particularly with regard to historic, scenic, and natural resources*." As listed above in Section 3.1.1 of this DEIS, relevant to the proposed action, Section 7.4 addressed the demand for office and industry in the Town of Riverhead with the reasons for increased demand. The following are the relevant office and industry goals and policies from the Town Comprehensive Plan and the proposed action's consistency therewith.

- *Goal 7.10: Strengthen the industrial zoning outside the Enterprise Park to be more responsive to market demands and surrounding uses.*
  - *Policy 7.10E: Continue to allow and encourage a mix of office and industrial development in the industrial zones.*

Pursuant to the Town Comprehensive Plan, "Riverhead's land use regulations should be flexible enough to accommodate both office and industrial development, allowing the market to decide how much of each will ultimately be built" (page 7-16). As indicated in the FMS (see Appendix D of this DEIS), the proposed development demonstrates excellent functional utility given the limited supply of warehouse distribution facilities with highly efficient ceiling heights. The proposed units would offer adequate loading space and docks, high ceilings, and a mix of roll-up and dock-high doors which would allow for local smaller businesses such as landscapers, interior decorators and craftsmen. An on-site cafeteria/commissary will support businesses by allowing convenient access of food and beverage to its employees without the need to leave the project site. The proposed development serves to meet the unmet demand for industrial warehouse and distribution in eastern Long Island. It is also noted that the proposed development is projected to generate approximately 50 to 60 construction jobs and 459 permanent jobs (refer to Section 1.3.2 of this DEIS). Finally, upon implementation of the proposed action, an increase in tax revenues are expected.

- *Goal 7.11: Ensure that office and industrial development fits into the Town's rural character.*
  - *Policy 7.11A: Increase the minimum lot size for development in the industrial zones, in order to reserve those areas for large-scale development and to require greater open space preservation.*

The subject property is situated on a 30.25±-acre parcel intended for large-scale light industrial development according to the Proposed Land Use Plan of the Town Comprehensive Plan and the current Town Zoning Map (2015). Pursuant to Chapter 301-Attachment 3 of the Town Code (*Commercial Districts Schedule of Dimensional Regulations*), the minimum lot size for development within the Ind C zoning district is 80,000 SF and the subject property is 1,317,884 SF in area. As demonstrated above in the zoning consistency analysis, the proposed action would preserve 23.19 percent of contiguous landscape and open space.

  - *Policy 7.11G: Adopt design guidelines for office and industrial development in the industrial zones, as well as roadways and parking lots in those areas.*

Section 301-124 (*Supplementary guidelines*) of the Town Code sets forth the design guidelines and parking standards for developments within the Ind C zoning district. As demonstrated above in the zoning consistency analysis, overall, the proposed site plan complies with the design guidelines and parking standards set forth in Section 301-124 of the Town Code. The proposed action would use generous landscaping and open space buffers along the subject property's frontage to protect the rural appearance and minimize views of the proposed development from Middle Country Road. The proposed development would also provide continuous sidewalks along NYS Route 25 and install bike racks to accommodate bicyclists.

Overall, the proposed development is consistent with the relevant polices and goals of Chapter 7 (Economic Development Element) of the Town Comprehensive Plan.

Transportation

As noted in Section 3.1.1 of this DEIS, the Transportation Element of the Town Comprehensive Plan include a vision statement that expressed "*Route 25 and Route 58 should remain Riverhead's primary east-west traffic corridors, while other east-west roads are discouraged from being used as bypass routes. Road improvements throughout Riverhead should be undertaken in a manner that is sensitive to the Town's residential neighborhoods and its historic, scenic, and natural resources*" (p. 9-1). The following are the relevant transportation goals and policies from the Town Comprehensive Plan and the proposed action's consistency therewith.

- *Goal 9.3: On an ongoing basis, work to reduce traffic congestion on roads throughout Riverhead.*
  - *Policy 9.3A: Encourage NYSDOT to conduct a study of the Route 25 corridor between the Brookhaven border and the LIE.*
  - *Policy 9.3C: Continue to assess the traffic impacts of new development, and require developers to provide roadway improvements and/or other transportation amenities to mitigate those impacts.*
  - *Policy 9.3D: Continue to consider road improvement projects Townwide on a case-by-case basis, in order to address issues of traffic congestion, but avoid road widening along scenic corridors.*
  - *Policy 9.3E: Through the site plan review process, require cross access agreements and linked parking lots between new commercial development and adjacent commercial sites.*

  As discussed in Section 3.3 of this DEIS, a Traffic Impact Study (TIS) has been prepared by Stonefield for the proposed action to assess the traffic impacts of the proposed new development. Access is proposed via one (1) full-movement driveway along Middle Country Road, with signalization of the site driveway. Consultations have been undertaken with the NYSDOT regarding the preferred signalization and preliminary acceptance of the proposed plan has been accepted. It is further noted that, if the proposed signal is not accepted, a roadway striping modification to accommodate a two-way left-turn lane on Middle Country Road along the project site frontage would be implemented. The TIS evaluated the feasibility of a cross-access agreement with the owner of the property to the west of the project site. The TIS also evaluated the feasibility of creating a roundabout at the intersection of NYS Route 25 and Fresh Pond Avenue. While a site access configuration has not been confirmed, NYS Route 25 is under the jurisdiction of the NYSDOT and a Highway Work Permit would be required. Stonefield would continue to coordinate with the NYSDOT to determine an appropriate site access configuration. The site access conditions are evaluated in the TIS (see Appendix L of this DEIS) and summarized in Section 3.2 of this DEIS. As such, the proposed action is consistent with the goals and policies of the Town Comprehensive Plan.

- *Goal 9.4: Provide a Townwide roadway system that ensures the safety of cars, trucks, buses, pedestrians, and bicycles.*

- *Policy 9.4A: Work with State and County agencies to improve roads and intersections with safety deficiencies, while being respectful of adjacent neighborhoods and businesses and helping preserve Town's natural, scenic, and historic resources.*

As noted above, site access is proposed via one (1) full-movement driveway along Middle Country Road, with signalization of the site driveway. By providing signalization at the site access, this would ensure the safety of cars, trucks, buses, pedestrians and bicyclists. To accommodate pedestrians, the proposed development includes a continuous four (4)-foot concrete sidewalk along the site frontage on Middle Country Road and along the east side of the proposed site access driveway. A six (6)-foot wide crosswalk would also be placed in front of the site access along Middle Country Road. Interior to the project site, the proposed design includes sidewalks along the sides of the proposed buildings facing the center drive aisle. Also, bike racks would be installed along the north side of each building within the central drive aisle. Thus, the proposed action is consistent with the goals and policies of the Town Comprehensive Plan.

Overall, the proposed development is consistent with stated land use, polices and goals for increased industrial development, as set forth in the Town Comprehensive Plan.

Long Island North Shore Heritage Area Management Plan, 2005

As stated in the *Heritage Plan*, the management element of the *Heritage Plan* "provides a system to guide preservation and revitalization" (pg. 35). Recommendations and goals of the management plan relevant to the subject property and proposed action include:

- *Act as good stewards of significant cultural, historic and natural resources. (pg. 38)*

As discussed in further detail in Section 3.4 of this DEIS (Historic and Archaeological Resources), the potential cultural significance of the subject property has been addressed during this environmental review process, which included the preparation of Phase IA Archaeological Assessment, Phase IB Archaeological Survey, and Phase II field investigations, which all culminated in an ultimate finding of no archaeological significance from the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) on February 23, 2021. The proposed site plan considers the natural resources on the subject property, with significant landscaping along the project site frontage, as well as the side and rear yards. Further, approximately 23.19 percent of the property would be contiguous landscaping and open space, which exceeds the minimum requirement of 20 percent. Native tree and shrub buffers within the peripheral landscaping will be 20 feet wide along NYS Route 25, 10 feet wide along the side and rear property boundaries, and 20 feet wide along the rear property boundary. The proposed landscaping plantings will not include any species listed as invasive by the Long Island Invasive Species Management Area or included on Suffolk County's "No Sale/Transfer List" (Suffolk County Local Law No. 22-2007, Adopted 6-26-2007).

Furthermore, as indicated in Section 2.3.2 of this DEIS, any clear-cutting of trees would occur during the winter months (between December 1 and February 28) in accordance with NYSDEC recommendations to avoid any potential take of northern long-eared bat in Suffolk County, a

species listed as threatened by both the USFWS and New York State. Winter clearing of the trees will also minimize potential impacts to breeding wildlife and birds.

- *Target development to areas where it can be accommodated by existing infrastructure.* (pg. 49)

  The proposed development would be accommodated by existing utilities that are available along Middle Country Road. Consultations were undertaken by Emtec with PSEG Long Island and National Grid where service availability for the full build out was requested. PSEG Long Island and National Grid have confirmed adequate capacity to service the proposed development (see Appendix O of this DEIS). However, National Grid noted that the commitment is valid only until February 24, 2023. Due to the timing of Phase 2 (i.e., 2025), the Applicant would coordinate with National Grid prior to construction of Phase 2 in accordance with the direction set forth by National Grid (see correspondence in Appendix O of this DEIS).

  Due to the depth of the subject property (approximately 2,510 feet), the proposed development would include an extension of the service area of the RWD to service the subject property. An application has been submitted to the RWD for such extension and the Applicant's project team is actively coordinating with the consultants to the RWD. As explained in Section 1.2.4 of this DEIS, the original application submitted to the RWD for such extension included a quantity of water demand of 18,857± gpd (inclusive of potable and irrigation). As the project has been modified to incorporate an STP, a subsequent request for water availability was filed with the RWD by PWGC on December 17, 2020 (see Appendix I of this DEIS) for an increase in water quantity to 20,000 gpd for domestic water supply. A response is pending; however, consultations have been ongoing with the RWD and it is expected that water will be available to the proposed project upon commencement of construction.

Strategic Plan

The Heritage Plan describes the strategic plan component as a "coordinated program to identify "centerpiece" elements of the Heritage Experience, to build the concepts around them and to provide linkages and wayfinding among them." (pg. 57). The strategic plan component of the Heritage Plan articulates a "preservation concept" and a "revitalization concept;" however, as an undeveloped former agricultural-use site that is zoned for industrial development (i.e., Ind C Zoning), the strategic plan does not generally relate to the nature of the subject property or the proposed action.

Implementation Plan

The implementation strategy of the Heritage Plan identifies tactics, marketing, funding sources, and next steps in order to make the goals and objectives of the Heritage Plan a reality. While the implementation plan methods are mostly global and general in nature, there are some proposals that generally relate to the subject property and proposed action, discussed below.

- *Evaluate the impact of development plans and proposals of regional significance on the heritage, cultural and natural resources of the Heritage Area.* (pg. 113)

As previously discussed, and further evaluated in Section 3.4 of this DEIS, the subject property is not considered archaeologically significant nor are there structures of cultural significance. Further, the prevailing zoning and Town Comprehensive Plan support the proposed development. As discussed in Section 1.3.2 of this DEIS, the Proposed Land Use Plan for the Town Comprehensive Plan illustrates the subject property located within an area planned for IR use to "allow a mix of light industrial and commercial recreation uses in the area between Enterprise Park and the terminus of the Long Island Expressway" (see Figure 3 in Appendix A of this DEIS). As a proposed light industrial development, the proposed action is consistent with the intended purpose, as set forth in Town Comprehensive Plan. Furthermore, as indicated on the current Town Zoning Map (2015) (see Figure 5 in Appendix A of this DEIS), the subject property is currently zoned Ind C and the proposed action would convert the subject property to the permitted light industrial use (i.e., warehouse and indoor manufacturing).

- *Support economic and job development efforts.* (pg. 119)

The proposed action would include eight (8) buildings with a total gross floor area of 412,629± SF for a building program consisting of 75 percent light industrial warehouse use and 25 percent indoor manufacturing use at the subject property. As indicated in Section 1.3.2 of this DEIS, the proposed development would create temporary construction jobs, permanent jobs, while also increasing tax revenues to the various jurisdictions (i.e., Town of Riverhead, Riverhead UFSD, etc.). Specifically, the proposed development is projected to generate approximately 50 to 60 temporary construction jobs and 459 permanent jobs. Based on a projected tax rate of 217.156/1000, the redevelopment of the project site is estimated to increase tax generation to approximately $1,130,000 to $1,300,000, with the probable amount of $1,215,000. This represents an increase of approximately $1,106,447.22 to $1,276,447.22 in annual tax revenue as the project site currently generates $23,552.78 for existing conditions.

Of further importance is the project's response to a demand for companies seeking approximately 5,000 to 50,000 SF of light industrial warehouse and distribution space in eastern Long Island. The proposed units would offer adequate loading space and docks, high ceilings, and larger drive-in doors. The CIP would also be conveniently located on Middle Country Road with easy access to all major transportation corridors, which is ideal for companies looking to do business on both the North and South Forks of Long Island, and vice-versa, allowing East End companies to bring their goods and services to Western Long Island as well. Overall, the proposed development serves to meet the unmet demand for industrial warehouse and distribution in eastern Long Island and supports the Town of Riverhead Comprehensive Plan and the larger Heritage Plan region.

Long Island Region Opportunity Zone

The subject property is located within a federal Opportunity Zone (Long Island Region) (see Figure 6) community development program, which has the intent and purpose of encouraging private investment in low-income urban and rural communities in exchange for incentives through federal funding and tax deferments. The proposed action would offer the opportunity for job creation and the attraction of new

tenants to the Calverton area. As indicated in Section 1.3.2 of this DEIS, the proposed development is projected to generate approximately 50 to 60 construction jobs and 459 permanent jobs. Also, the proposed development would generate a significant increase in tax revenues to the Town and its taxing jurisdictions. As indicated in Section 1.3.2 of this DEIS, based on a projected tax rate of 217.156/1000, the redevelopment of the project site is estimated to increase tax generation to approximately $1,130,000 to $1,300,000, with the probable amount of $1,215,000.

3.1.3 Proposed Mitigation

Based on the above analyses, the proposed action is not expected to result in any significant adverse land use or zoning impacts. The proposed action has incorporated the following design elements that effectively mitigate any potential adverse impacts:

- The planting buffers within the side yards would be between 40 and 44 feet and the rear yard would include a minimum of 31.9 feet of planting buffers, which far exceed the 10-foot buffer requirement (§301-124A.4.B). The proposed landscaped buffers along the side yards and rear yard would screen the development from the adjacent land uses and the EPCAL waking trail, respectively.

- Approximately 23.19 percent of the subject property would be contiguous landscaping, which exceeds the minimum requirement of 20 percent, pursuant to §301-123.B. The proposed extensive front yard landscaping and open space buffers would effectively screen the development from the corridor traffic along Middle Country Road.

- The proposed design provides for greater front, side and rear yard setbacks than what is required (Required Front, Side, and Rear Yards: 30 Feet, 60 Feet Combined, and 50 Feet, respectively; Proposed: 124.7 Feet, 221 Feet, and 195.2 Feet) to maintain the rural appearance of the surrounding area.

3.2 Transportation

The transportation analyses presented in Section 3.2 of this DEIS are a summary of the "Traffic Impact Study for Proposed Industrial Park" (TIS) prepared by Stonefield and completed in April 2021. The TIS can be found in its entirety in Appendix L of this DEIS.

3.2.1 Existing Conditions

Methodology

The TIS has been prepared in accordance with the recommended guidelines and practices outlined by the Institute of Transportation Engineers (ITE) within the *Transportation Impact Analyses for Site Development*. The TIS was prepared in accordance with the Final Scope for the DEIS and included the following:

- A detailed field investigation was performed to assess the existing conditions of the adjacent roadway network.
- A data analysis effort was completed to identify the existing traffic volumes at the study intersections to serve as a base for the traffic analyses.
- A capacity analysis was performed using the *Highway Capacity Manual, 6th Edition* (HCM) and Synchro 10 Software for all study conditions to assess the roadway operations.
    - For an unsignalized intersection, Level of Service (LOS) A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle.
    - For a signalized intersection, LOS A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 80 seconds per vehicle.
    - The traffic signal timing utilized within the signalized analysis is based on signal timing directives provided by the New York State Department of Transportation (NYSDOT).

Roadway Characteristics

The subject property is located on the south side of Middle Country Road (NYS Route 25) between Fresh Pond Avenue to the west and Edwards Avenue to the east. The principal roadways within the TIS study area include Middle Country Road (NYS Route 25), Fresh Pond Avenue, Edwards Avenue, and Burman Boulevard. A description of the principal roadways follows:

- Middle Country Road is under the jurisdiction of New York State and is classified as a principal arterial roadway with a general east-west orientation with a posted speed limit of 50 miles per hour (mph). The roadway provides one (1) lane in each direction and curb and sidewalk are not provided along either side of the roadway, shoulders are generally provided along both sides of the roadway, and on-street parking is not permitted along either side of the roadway. NYS Route 25 provides access between Manhattan and Orient Point for predominantly residential and commercial.

- Fresh Pond Avenue is under the jurisdiction of the Town of Riverhead and is classified as an urban minor arterial roadway with a general north-south orientation with a posted speed limit of 45 mph. The roadway generally provides one (1) lane in each direction and curb and sidewalk are not provided along either side of the roadway, shoulders are not provided along either side of the roadway, and on-street parking is not permitted along either side of the roadway. Fresh Pond Avenue provides access between Sound Avenue at its northerly terminus and Middle Country Road at its southerly terminus for predominantly commercial uses along its length.

- Edwards Avenue is under the jurisdiction of the Town of Riverhead and is classified as an urban minor arterial roadway with a general north-south orientation with a posted speed limit of 45 mph. The roadway generally provides one (1) lane in each direction and curb and sidewalk are not provided along either side of the roadway, shoulders are generally not provided along either side of the roadway, and on-street parking is not permitted along either side of the roadway. Edwards Avenue provides access between Beach Way and Railroad Avenue to South River Road for predominantly commercial uses along its length.
- Burman Boulevard is under the jurisdiction of the Town of Brookhaven and is classified as a local roadway with a general north-south orientation with a posted speed limit of 30 mph. The roadway generally provides one (1) lane in each direction and curb, sidewalk, and shoulders are not provided along either side of the roadway, and on-street parking is not regulated along either side of the roadway. Burman Boulevard provides access between Middle Country Road at its northerly terminus and Grumman Boulevard at its southerly terminus for predominantly industrial uses along its length.

Study Intersections

The following intersections are located in the vicinity of the subject property:

1. Long Island Expressway (Interstate Route 495) Exit 71 and Edwards Avenue
2. Middle Country Road and Edwards Avenue
3. Middle Country Road and Burman Boulevard
4. Middle Country Road and Fresh Pond Avenue
5. Long Island Expressway eastbound off-ramp and Edwards Avenue.

The lane configurations at the intersection approaches of the Long Island Expressway (Interstate Route 495) Exit 71 at Edwards Avenue consists of the following:

1. Two (2) one-way eastbound lanes.

The lane configurations at the intersection approaches of Middle Country Road and Edwards Avenue consists of the following at the two (2)-phase traffic signal operating on a variable cycle length:

1. The eastbound and westbound approaches of Middle Country Road each provide one (1) shared left-turn/through/right-turn lane.
2. The northbound and southbound approaches of Edwards Avenue each provide one (1) shared left-turn/through/right-turn lane.

The lane configurations at the intersection approaches of Middle Country Road and Burman Boulevard consists of the following at the three (3)-leg T-intersection controlled by a two (2)-phase traffic signal operating on a variable cycle length:

1. The eastbound approach of Middle Country Road provides one (1) exclusive through lane and one (1) exclusive right-turn lane.
2. The westbound approach of Middle Country Road provides one (1) exclusive left-turn lane and one (1) exclusive through lane.
3. The northbound approach of Burman Boulevard provides one (1) exclusive left-turn lane and one (1) exclusive right-turn lane.

The lane configuration at the intersection of Middle Country Road and Fresh Pond Avenue consists of the following at the unsignalized four (4) leg intersection with the southbound approach of Fresh Pond Avenue and the northbound approach of the Tractor Supply Co. driveway operating under stop control:

1. The eastbound and westbound approaches of Middle Country Road each provide one (1) shared left-turn/through/right-turn lane.
2. The southbound approach of Fresh Pond Avenue provides one (1) shared left-turn/through/right-turn lane. The northbound approach of the Tractor Supply Co. driveway provides one (1) shared left-turn/through/right-turn lane.

The lane configuration at the intersection of Edwards Avenue and the Long Island Expressway eastbound off-ramp consists of the following at the unsignalized three (3) leg T-intersection:

1. The eastbound approach of the Long Island Expressway off-ramp operating under stop control.
2. The northbound and southbound approaches of Edwards Avenue each provide two (2) exclusive through lanes.
3. The eastbound approach of the Long Island Expressway off-ramp provides one (1) exclusive left-turn lane and one (1) exclusive right-turn lane.

Existing Transit Service

There are several modes of public transportation accessible from the subject property. The Riverhead Long Island Rail Road (LIRR) Station, which is serviced by the Ronkonkoma Branch and provides service to New York City, is six (6) miles from the subject property. Three (3) Suffolk County Transit (SCT) bus routes are in close proximity and provide service to various points throughout Suffolk County; the SCT Bus Routes S62 (700± feet), S58 (300± feet), and 8A (2± miles).

2020 Existing As-Counted Traffic Volumes

Intersection turning movement counts were collected at the following intersections on Wednesday, October 14, 2020 from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 7:00 p.m. as well as on Saturday, October 17, 2020 from 11:00 a.m. to 2:00 p.m.:

- Signalized intersection of Middle Country Road and Edwards Avenue
- Unsignalized intersection of Middle Country Road and Fresh Pond Avenue

The study time periods were chosen as they are representative of the peak periods of both the adjacent roadway network and the proposed action. Based on the review of the count data the weekday morning peak hour occurred from 7:30 a.m. to 8:30 a.m.; the weekday evening peak hour occurred from 4:00 p.m. to 5:00 p.m.; and the Saturday midday peak hour occurred from 12:15 p.m. to 1:15 p.m.

In accordance with the Final Scope, in order to evaluate existing traffic conditions and potential impacts on a broader roadway network, turning movement counts were also collected at the following intersections on Saturday, December 12, 2020 from 11:00 a.m. to 2:00 p.m., Tuesday, December 15, 2020 from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m., and Tuesday, December 22, 2020 from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m.:

- Signalized intersection of Middle Country Road and Edwards Avenue,
- Unsignalized intersection of Middle Country Road and Fresh Pond Avenue,
- Signalized intersection of Middle Country Road and Burman Boulevard, and
- Unsignalized intersection of Edwards Avenue and the LIE East exit ramp.

The study time periods were chosen as they are representative of the peak periods of both the adjacent roadway network and the proposed action. Based on the review of the count data the weekday morning peak hour occurred from 7:30 a.m. to 8:30 a.m.; the weekday evening peak hour occurred from 4:15 p.m. to 5:15 p.m.; and the Saturday midday peak hour occurred from 12:15 p.m. to 1:15 p.m.

Full turning movement count data can be found on Figures 2 and 3 in the TIS (see Appendix L of this DEIS).

2020 Existing Adjusted Traffic Volumes

Due to the COVID-19 pandemic and gathering and travel restrictions put in place by Governor Andrew Cuomo, current roadway operating conditions are not considered typical at the date of this report. In addition to the traffic movement counts at key intersections, Automatic Traffic Recorder (ATR) data was collected along Middle Country Road approximately 490 feet west of LIE Service Lane on Tuesday, December 15, 2020. The 24-hour collected ATR data was compared to ATR data published by the NYSDOT, which was collected at the same location on Tuesday, December 4, 2018, to evaluate existing traffic conditions and identify the impacts of COVID-19 restrictions on traffic volumes within the study network.

Based on a comparison of the ATR data, traffic volumes along Middle Country Road were approximately 15 percent lower than the published 2018 NYSDOT traffic volumes during the weekday morning peak hour and approximately 12 percent greater during the weekday evening peak hour. Therefore, the December 2020 turning movement counts were increased accordingly during the weekday morning peak hour to represent typical traffic volumes along the study network. Turning movement counts collected during the weekday evening peak hour were not adjusted due to the increase in volumes observed from the published 2018 NYSDOT data. It is important to note that historical NYSDOT ATR data

was not available for Saturday and therefore this methodology could not be utilized to calibrate the existing as-counted Saturday volumes.

A comparison of the turning movement counts collected at the intersections of Middle Country Road and Fresh Pond Avenue and Middle Country Road and Edwards Avenue on Saturday, October 17, 2020 and Saturday, December 12, 2020 showed that the subject intersections experienced approximately 11 percent greater traffic volumes during the October count versus the December count. Therefore, the turning movement counts collected at the intersection of Middle Country Road and Burman Boulevard and the intersection of Edwards Avenue and the LIE East exit ramp on Saturday, December 12, 2020 were increased accordingly to reflect the more conservative October 2020 count volumes. Turning movement counts collected on October 17, 2020 were maintained at the study intersections of Middle Country Road and Fresh Pond Avenue and Middle Country Road and Edwards Avenue.

Figure 4 in the TIS, (see Appendix L of this DEIS), summarizes the 2020 Existing Adjusted Weekday Morning, Weekday Evening, and Saturday Midday Peak Hour Volumes.

2020 Existing Level of Service (LOS)/Capacity Analysis

A Level of Service (LOS) and Volume/Capacity analysis was conducted for the 2020 Existing Condition during the weekday morning, weekday evening, and Saturday midday peak hours at the study intersections.

Under the 2020 Existing Condition, the following LOS conditions were determined:

- The signalized intersection of Middle Country Road and Burman Boulevard operates at LOS A during weekday morning and Saturday midday peak hours, LOS B during weekday evening peak hours. The turning movements at the signalized intersection are calculated to operate at LOS D or better during the study peak hours.
- The signalized intersection of Middle Country Road and Edwards Avenue operates at LOS B during the weekday morning, weekday evening, and Saturday midday peak hours. The turning movements at the signalized intersection are calculated to operate at LOS C or better during the study peak hours.
- The turning movements at the unsignalized intersection of Middle Country Road and Fresh Pond Avenue operate at LOS D or better during weekday morning peak hour. It is important to note the northbound left movement, which operates as part of a private driveway for the Tractor Supply Company are calculated to operate at LOS F during the weekday evening and Saturday midday peak hours. Also note that the southbound approach of Fresh Pond Avenue is calculated to operate at Level F during the weekday evening peak hour and LOS E during the Saturday midday peak hour. Turning movements at the intersection are otherwise calculated to operate at LOS C or better during weekday evening and Saturday midday peak hours.
- The turning movements at the unsignalized intersection of Edwards Avenue and the LIE East exit ramp are calculated to operate at LOS A during the weekday morning and weekday evening peak periods and LOS B during the Saturday midday peak hour.

Table 21 below summarizes the LOS for the 2020 Existing Condition and is included as Table A1 in the TIS (see Appendix L of this DEIS).

Table 21 – Comparative Level of Service (Delay) Tables (A1)

STONEFIELD

Table A1
Comparative Level of Service (Delay) Tables
X (n) = Level of Service (seconds of delay)

Intersection	Lane Group	2020 Existing Condition			2023 No-Build Condition Phase 1			2023 Build Condition A - Phase 1			2023 Build Condition B - Phase 1			2023 Build Condition C - Phase 1		
		AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)	AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)	AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)	AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)	AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)
Middle Country Road (E/W) & Burman Boulevard (N/S)	EB Through	A (3.5)	A (4.0)	A (3.0)	A (3.7)	A (4.2)	A (3.2)	A (3.7)	A (4.3)	A (3.2)	A (3.7)	A (4.3)	A (3.2)	A (3.7)	A (4.3)	A (3.2)
	EB Right	A (2.5)	A (3.1)	A (2.2)	A (2.6)	A (3.3)	A (2.2)	A (2.6)	A (3.3)	A (2.2)	A (2.6)	A (3.3)	A (2.2)	A (2.6)	A (3.3)	A (2.2)
	WB Left	A (4.2)	A (4.5)	A (3.3)	A (4.5)	A (4.9)	A (3.5)	A (4.6)	A (4.9)	A (3.5)	A (4.6)	A (4.9)	A (3.5)	A (4.6)	A (4.9)	A (3.5)
	WB Through	A (3.0)	A (4.8)	A (3.0)	A (3.1)	A (5.1)	A (3.2)	A (3.1)	A (5.2)	A (3.2)	A (3.1)	A (5.2)	A (3.2)	A (3.1)	A (5.2)	A (3.2)
	NB Left	D (38.3)	D (38.2)	D (36.0)	D (38.2)	D (38.0)	D (35.9)	D (38.2)	D (38.0)	D (35.9)	D (38.2)	D (38.0)	D (35.9)	D (38.2)	D (38.0)	D (35.9)
	NB Right	D (36.7)	D (41.0)	D (36.1)	D (36.8)	D (41.1)	D (36.1)	D (36.8)	D (41.1)	D (36.1)	D (36.8)	D (41.1)	D (36.1)	D (36.8)	D (41.1)	D (36.1)
	Overall	**A (5.8)**	**B (12.6)**	**A (4.8)**	**A (6.0)**	**B (12.8)**	**A (5.0)**	**A (6.0)**	**B (12.6)**	**A (5.0)**	**A (6.0)**	**B (12.6)**	**A (5.0)**	**A (6.0)**	**B (12.6)**	**A (5.0)**
Middle Country Road (E/W) & Edwards Avenue (N/S)	EB Left				B (11.4)	C (29.1)	B (19.5)	B (13.9)	C (30.5)	C (21.1)	B (13.9)	C (30.5)	C (21.1)	B (13.9)	C (30.5)	C (21.1)
	EB Left/Through/Right	B (17.2)	B (10.2)	B (12.1)	C (22.1)	B (12.0)	B (11.4)	C (29.8)	B (13.3)	B (13.2)	C (29.8)	B (13.3)	B (13.2)	C (29.8)	B (13.3)	B (13.2)
	WB Left				D (38.2)	B (18.4)	B (18.7)	D (48.7)	C (21.3)	C (22.4)	D (48.7)	C (21.3)	C (22.4)	D (48.7)	C (21.3)	C (22.4)
	WB Left/Through/Right	A (8.6)	B (13.4)	B (12.1)	A (8.9)	B (16.2)	B (11.5)	B (10.9)	B (17.2)	B (12.5)	B (10.9)	B (17.2)	B (12.5)	B (10.9)	B (17.2)	B (12.5)
	NB Left				D (39.8)	C (31.1)	C (29.5)	D (53.4)	C (32.6)	C (29.7)	D (53.4)	C (32.6)	C (29.7)	D (53.4)	C (32.6)	C (29.7)
	NB Left/Through/Right	C (30.7)	C (27.1)	C (27.2)	C (29.7)	C (21.7)	C (25.3)	C (33.3)	C (22.3)	C (24.5)	C (33.3)	C (22.3)	C (24.5)	C (33.3)	C (22.3)	C (24.5)
	SB Left				C (34.4)	C (24.5)	C (30.1)	D (38.9)	C (25.2)	C (29.3)	D (38.9)	C (25.2)	C (29.3)	D (38.9)	C (25.2)	C (29.3)
	SB Left/Through/Right	C (28.4)	C (25.1)	C (24.0)	C (30.8)	C (23.2)	C (23.6)	C (34.5)	C (23.8)	C (23.0)	C (34.5)	C (23.8)	C (23.0)	C (34.5)	C (23.8)	C (23.0)
	Overall	**B (19.2)**	**B (15.8)**	**B (16.1)**	**C (30.8)**	**B (17.6)**	**B (16.0)**	**C (29.7)**	**B (18.7)**	**B (16.9)**	**C (29.7)**	**B (18.7)**	**B (16.9)**	**C (29.7)**	**B (18.7)**	**B (16.9)**
Middle Country Road (E/W) & Fresh Pond Avenue (N/S)	EB Left	A (8.0)	A (9.7)	A (9.2)	A (8.1)	A (9.8)	A (9.3)				A (8.1)	A (9.9)	A (9.4)	A (8.1)	A (9.9)	A (9.4)
	EB Left/Through/Right							A (6.5)	A (5.6)	A (6.5)						
	WB Left	A (9.7)	A (8.8)	A (9.0)	A (9.9)	A (9.0)	A (9.3)	A (3.1)	A (3.3)	A (3.6)	A (9.9)	A (9.0)	A (9.3)	A (9.9)	A (9.0)	A (9.3)
	WB Through/Right							A (3.8)	A (7.7)	A (5.9)						
	NB Left	D (28.9)	F (69.9)	F (60.1)	D (33.0)	F (124.4)	F (120.0)	D (36.3)	D (35.1)	D (35.1)	D (34.1)	F (147.3)	F (130.0)	D (33.9)	F (135.0)	F (123.2)
	NB Through/Right	C (15.6)	C (19.5)	C (19.6)	C (16.3)	C (20.1)	C (20.8)	D (36.2)	D (36.0)	D (36.4)	C (16.6)	C (20.6)	C (21.2)	C (16.6)	C (20.2)	C (20.8)
	SB Left/Through/Right	C (17.1)	F (53.4)	E (43.2)	C (19.1)	F (76.6)	F (68.6)	D (39.1)	D (35.9)	D (36.4)	C (23.2)	F (94.3)	F (88.8)	C (23.1)	F (89.0)	F (82.7)
	Overall							**A (7.9)**	**A (9.4)**	**A (9.2)**						
LIE Off-Ramp (N) & Edwards Avenue	NB Left	A (9.1)	A (8.7)	B (12.1)	A (9.2)	A (8.7)	B (12.7)	A (9.4)	A (8.9)	B (13.1)	A (9.4)	A (8.9)	B (13.1)	A (9.4)	A (8.9)	B (13.1)
	NB Right	A (8.5)	A (8.4)	B (10.2)	A (8.5)	A (8.4)	B (10.3)	A (8.5)	A (8.4)	B (10.3)	A (8.5)	A (8.4)	B (10.3)	A (8.5)	A (8.4)	B (10.3)
Middle Country Road & Site Driveway	WB Left							A (9.5)	A (9.0)	A (9.3)				A (10.0)	A (9.4)	A (9.7)
	WB Left/Through										A (3.2)	A (8.2)	A (5.9)			
	EB Through/Right										A (5.1)	A (5.4)	A (5.8)			
	NB Left							C (16.8)	C (21.2)	C (19.4)	D (36.0)	C (34.9)	C (34.9)	C (18.5)	C (23.5)	C (21.3)
	NB Right							C (16.8)	B (14.7)	C (15.6)	D (41.4)	D (37.2)	D (37.2)	C (16.8)	B (14.7)	C (15.6)
	Overall										**A (4.9)**	**A (8.3)**	**A (7.2)**			

Motor Vehicle Collision Analysis

As indicated in the TIS, the three (3) most recent years of available motor vehicle collision data were obtained from the NYSDOT. The study time period spans from February 1, 2017 to January 31, 2020, which is unaffected by COVID-19. Table B1 in the TIS summarizes the manner and severity of the motor vehicle collisions reported.

A total of 181 collisions were reported within the study network. Of those accidents, 67 were rear end collisions. It is noted that zero (0) fatalities occurred as a result of the reported motor vehicle collisions in the study network.

3.2.2 Potential Impacts

2023 Phase 1 No-Build Condition Background Growth

The 2020 Existing Condition traffic volume data, including the applicable aforementioned other planned developments, was grown to a future horizon year of 2023, which is when Phase 1 of the action is expected to be constructed. Based on data provided by the NYSDOT Office of Technical Services' Traffic Monitoring Section, the roadway network is anticipated to experience an ambient annual growth of approximately one percent. However, the existing traffic volumes at the study intersections were conservatively increased by 1.5 percent annually for three (3) years to generate the 2023 Base Traffic Volumes. These volumes are summarized in Figure 5 in the TIS (see Appendix L of this DEIS).

Other Planned Development Projects

In coordination with the Town and its consultants (see correspondence in Appendix P of this DEIS), three (3) other potential developments were identified for the TIS and the DEIS to review: Island Water Park, Proposed Tractor Supply Site and Calverton Industrial Subdivision. The Final Scope required the TIS to additionally evaluate the cumulative traffic impacts associated with the EPCAL development as well as to consider the future safety enhancements to be made at the intersection of NYS Route 25 and Edwards Avenue. Additional information regarding the status and description of the projects considered for the DEIS are included in Section 4.4 of this DEIS.

In coordination with the Town of Riverhead Planning Department (see Appendix P of this DEIS), this DEIS assumes that the applications of the Island Water Park and Tractor Supply retail build-out as well as the safety enhancements at NYS Route 25 and Edwards Avenue will occur prior to completion of Phase 1 of the proposed development (i.e., 2023). Accordingly, the growth rate in the TIS has assumed the potential build-out of these projects to coincide with the completion of Phase 1 of the proposed action in 2023. EPCAL was not included in the evaluation. No additional planned developments were identified that would impact the full build-out of Phase 2. It is expected that Phase 2 would also precede the development of EPCAL and is therefore not included in the 2025 growth rate.

EPCAL is located approximately one (1) mile west of the subject property and is a 2,000± acre subdivision to facilitate a mixed-use development which will include a combination of commercial, retail, industrial, government, energy park, recreation, utilities, and residential uses. The application is currently under review by Town of Riverhead Planning Department. It is Stonefield's understanding that

the Town of Riverhead is in the process of determining a suitable developer for the EPCAL property and that one has not been identified. Additionally, a development application has not been submitted for EPCAL and it is expected that the proposed action would likely precede EPCAL. Therefore, traffic volumes associated with EPCAL are not included in the TIS.

The TIS also considered safety enhancements to be made at NYS Route 25 and Edwards Avenue. This intersection is expected to undergo intersection widening and include the addition of exclusive left-turn lanes at all approaches. Construction is anticipated to be completed before the anticipated Phase 1 build-out of the proposed action. The signal timing and phasing of this intersection remains unchanged as the modifications are not known at this time.

Figure 6 in the TIS (see Appendix L of this DEIS), illustrates the site-generated traffic associated with the other planned developments.

2023 Phase 1 No-Build Traffic Volumes

The site-generated trips associated with the other planned developments were added to the 2023 Base Traffic Volumes to calculate the 2023 No-Build Traffic Volumes for the weekday morning, weekday evening, and Saturday midday peak hours. Figure 7 in the TIS summarizes the trip generation under the No-Build Condition.

2023 Phase 1 No-Build LOS/Capacity Analysis

A LOS and Volume/Capacity analysis was conducted for the 2023 Phase 1 No-Build Condition, including the safety improvements at Middle Country Road and Edwards Avenue, during the weekday morning, weekday evening, and Saturday midday peak hours at the study intersections. Under the 2023 Phase 1 No-Build Condition, the following conclusions were drawn:

- The southbound approach of the intersection of Middle Country Road and Fresh Pond Avenue is calculated to degrade from LOS E to LOS F, experiencing a 25.4 second increase in delay during the Saturday midday peak hour.
- The northbound movements at the subject intersection, which were calculated to operate at LOS F during the weekday evening and Saturday midday peak hours under the 2020 Existing Condition, experience a significant increase in delay during the subject peak hours under the 2023 Phase 1 No-Build Condition.
- The turning movements at the unsignalized intersection of Middle Country Road and Fresh Pond Avenue are calculated to continue to operate with capacity issues during the weekday evening and Saturday midday peak hours.
- The overall intersection of Middle Country Road and Edwards Avenue is calculated to operate generally consistent with the findings of the 2020 Existing Condition, and the exclusive left-turn movements are calculated to operate at LOS D or better during the weekday morning peak hour and LOS C or better during the weekday evening and Saturday midday peak hours.
- Study intersections are otherwise calculated to operate generally consistent with the findings of the 2020 Existing Condition.

Figure 1 included above, which is included as Table 1A in the TIS (see Appendix L of this DEIS), summarizes the LOS condition for the 2023 Phase 1 No-Build Condition.

2023 Phase 1 Build Condition

The site-generated traffic volume of the proposed development was estimated to identify the potential impacts of the project. For the purpose of this analysis, Phase 1 "build out" is assumed by 2023.

Site Access Conditions

Improvements in the public right-of-way would be needed to permit access to the subject property. It is important to note that a virtual meeting was held with the NYSDOT, the Town of Riverhead, the Town's consultants, L.K. McLean Associates (LKMA), and the Applicant on December 16, 2020 to discuss the potential access plans. It was requested that several potential site access conditions be analyzed in the TIS. Per the date of the TIS, a final access configuration has not been confirmed; however, signalization is preferred. As Middle Country Road is under the jurisdiction of the NYSDOT, a Highway Work Permit is required and Stonefield will continue to coordinate with the State regarding access.

In addition to the proposed site access, the TIS considered three (3) other site access conditions for the proposed action (Conditions A, B, and C). Additionally, the Final Scope required the following:

- *The proposed site access to NY 25 is 400' from the Fresh Pond Avenue intersection. Accident potential will be reduced by enabling westbound left turns to enter both sites,*
- *Evaluate the feasibility of a roundabout at the NY 25/Fresh Pond Avenue intersection before considering a traffic signal.*

These additional conditions are described below. It is important to note that Condition A is presented as Alternative 7 – Proposed Development with Cross Access Across Sky Materials Site in Section 5.7 of this DEIS.

<u>Site Access Conditions – Condition A</u>

Site Access Condition A considers cross access with the property immediately to the west of the project site. Access would be provided via two points - a signalized access point at the intersection of Middle Country Road and Fresh Pond Avenue and an unsignalized access point along the Middle Country Road frontage. The widening of Middle Country Road to provide a westbound left-turn lane at the westbound approach to the traffic signal at Fresh Pond Avenue and a two-way left-turn lane extending between the aforementioned left-turn lane and the eastern extent of the proposed action's Middle Country Road frontage is also considered under this access.

The proposed signal was analyzed to operate on a two (2)-phase, 110-second cycle length signal timing during the weekday morning, weekday evening, and Saturday midday peak hours. Trucks would be restricted from executing left turn movements into and out of the unsignalized driveway while passenger vehicles would have the option to execute left turn movements at either access point. This assumes that the Applicant and the owners of the property to the west of the project site come to a cross access

agreement. Calverton Industries, the owner of a portion of the property to the west of the subject property, issued a letter dated March 9, 2021 denying the proposal for a cross-access agreement with the Applicant (see Appendix P of the DEIS). Also, the second owner (New England Retail Properties, Inc.) was contacted by various emails but there appears to be no interest, particularly with future planned development of additional pad sites on the property (see Section 4.4 [Cumulative Impacts] of this DEIS). Therefore, Condition A would not be feasible.

Site Access Conditions – Condition B

Site Access Condition B considers access via a full-movement signalized access point along the Middle Country Road frontage. The proposed signal was analyzed to operate on a two (2)-phase, 108.5 second cycle length signal timing during the weekday morning, weekday evening, and Saturday midday peak. To assist in determining whether a traffic signal should be installed, Stonefield has prepared a Traffic Signal Warrant Analysis, dated April 19, 2021, which is appended to the TIS (included as Appendix L of this DEIS). Based on the adjacent roadway volumes and site generated traffic, a traffic signal is warranted at the subject location per the Manual on Uniform Traffic Control Devices (MUTCD) standards. Note that the NYSDOT retains jurisdiction over improvements in the Middle Country Road right-of-way and review with the NYSDOT is on-going. No improvements would be provided at the adjacent intersection with Fresh Pond Avenue which would remain unsignalized. Cross access to the property to the west would not be provided.

Site Access Conditions – Condition C

Site Access Condition C considers access via an unsignalized access point along the Middle Country Road frontage. The widening of Middle Country Road to provide a westbound left-turn lane at the westbound approach to the traffic signal at Fresh Pond Avenue and a two-way left-turn lane extending between the aforementioned left-turn lane and the eastern extent of the project site's Middle Country Road frontage is also considered under this access.

Alternative Access Via Roundabout

The TIS also discussed the potential viability of creating a roundabout at the intersection of Middle Country Road with Fresh Pond Avenue. The advantage of providing a roundabout at this location would increase safety by eliminating the proposed left-turn, improve delays/queuing as traffic would be continuously moving, and reduce operational costs and maintenance as there would be no traffic signal. The disadvantage of providing a roundabout at this location is it requires more intersection space than is available, there is a gap reduction due to the continuous flow of traffic, there is an equal approach opportunity for all vehicles, and the intersection configuration utilizing the NYSDOT right-of-way would require the agency's review and approval. NYSDOT has stated that signalized access is preferred based on the corridor characteristics and subject intersection geometry. Based on a meeting held with Stonefield, Town of Riverhead and NYSDOT, the roundabout was not analyzed for highway capacity as a fourth access alternative. Refer to the Appendix section of the TIS for the meeting minutes.

Projected Trip Generation

The TIS includes an evaluation of the 2023 Build Condition along with projected trip generation rates for Phase 1 of the proposed action. Trip generation projections for Phase 1 of the proposed industrial park were prepared utilizing ITE's *Trip Generation Manual*, *10th Edition* rates for "Industrial Park" (Land Use 130). As indicated in Table 22 below, the peak hour trips for the proposed action include: 90 total trips (73 entering, with 68 passenger vehicles and 5 trucks, and 17 exiting, with 11 passenger vehicles and 6 trucks) during the weekday morning peak hour, 90 total trips (19 entering, with 16 passenger vehicles and 3 trucks, and 71 exiting, with 65 passenger vehicles and 6 trucks) during the weekday evening peak hour, and 99 total trips (32 entering, with 28 passenger vehicles and 4 trucks, and 67 exiting, with 61 passenger vehicles and 6 trucks) during the Saturday midday peak hour. As less than 100 vehicle trips would be introduced, it is not likely the LOS of the adjacent roadway system would change. It is noted the proposed commissary would not generate traffic or parking demand independent of the industrial park as it would be used only by tenants. The projected trip generation for Phase 1 of the proposed action would not significantly adversely impact the adjacent roadway network.

Table 22 – Projected Phase 1 Trip Generation

Land Use		Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
		Enter	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
224,969 SF Industrial Park *Land Use 130*	Passenger Vehicles	**68**	**11**	**79**	**16**	**65**	**81**	**28**	**61**	**89**
	Trucks	**5**	**6**	**11**	**3**	**6**	**9**	**4**	**6**	**10**
	Total	**73**	**17**	**90**	**19**	**71**	**90**	**32**	**67**	**99**

Trip Assignment/Distribution

The trips generated by the proposed development were distributed based on the expected travel patterns of the proposed action's various tenants' employees and patrons along with the access management plan of the subject property.

- Traveling along Edwards Avenue and the segment of Middle Country Road between the subject property and Edwards Avenue, 75 percent of trucks would travel to or come from the LIE.
- Traveling along the segment of Middle Country Road west of the subject property, 25-percent of the trucks would travel to or come from NYS Route 25 and 25A and roadways that connect to these routes including but not limited to William Floyd Parkway and NYS Route 112.

Passenger vehicle traffic has been routed based on the following macroscopic patterns:

- Traveling along Edwards Avenue and the segment of Middle Country Road between the subject property and Edwards Avenue, 50 percent of passenger vehicles would travel to or come from the LIE.

- Traveling along the segment of Middle Country Road and NYS Route 25A west of the subject property, 12.5 percent of the passenger vehicles would travel to or come from Long Island's North Shore in Suffolk County traveling along William Floyd Parkway and Middle Country Road.
- Traveling along the segment of Middle Country Road and NYS Route 25A west of the subject property, 12.5 percent of the passenger vehicles would travel to or come from Long Island's South Shore in Suffolk County traveling along William Floyd Parkway and Middle Country Road.
- Traveling along Sound Avenue, Fresh Pond Avenue, and Middle Country Road in the immediate vicinity of the subject property, 12.5 percent of passenger vehicles would travel to or come from locations along Long Island's South Form traveling along NYS Route 24 to Edwards Avenue and the segment of Middle Country Road between the subject property and Edwards Avenue.

While there are multiple routes to and from the LIE to the subject property, providing one route was needed to provide a conservative analysis and concentrated the traffic at study intersections.

2023 Phase 1 Build Traffic Volumes

The total site-generated trips for Phase 1 were added to the 2023 No-Build Traffic Volumes to calculate the 2023 Phase 1 Build Traffic Volumes for Conditions A, B, and C. Figure 1 included above, which is included as Table 1A in the TIS (see Appendix L of this DEIS), summarizes the three LOS conditions for each Build Condition.

2023 Phase 1A Build LOS/Capacity Analysis

As noted above, Condition A is the same as Alternative 7 in the DEIS. The turning movements at the unsignalized intersection of Middle Country Road and the proposed site driveway are calculated to operate at LOS C or better during the peak hours. To align with the proposed conditions, this analysis was completed as though the intersection was signalized with an exclusive westbound left turn lane. The signalized intersection of Middle Country Road and Fresh Pond Avenue is calculated to operate at overall LOS A and the turning movements at the subject intersection are calculated to operate at LOS D or better during the peak hours. The study intersections are otherwise calculated to operate generally consistent with the findings of the 2023 Phase 1 No-Build Condition during the peak hours. The Highway Capacity Analysis Detail Sheet for 2023 Phase 1A Build Traffic Conditions is appended to the TIS (included in Appendix L of this DEIS) on pages A111-A125.

2023 Phase 1B Build LOS/Capacity Analysis

The signalized intersection of Middle Country Road and the proposed site driveway is calculated to operate at an overall LOS A and the turning movements at the subject intersection are calculated to operate at LOS D or better during the peak hours. The turning movements at the unsignalized intersection of Middle Country Road and Fresh Pond Avenue are calculated to continue to operate with capacity issues during the weekday evening and Saturday midday peak hours. The study intersections are calculated to operate generally consistent with the findings of the 2023 Phase 1 No-Build Condition during the peak hours. The Highway Capacity Analysis Detail Sheet for 2023 Phase 1B Build Traffic Conditions is appended to the TIS (included in Appendix L of this DEIS), on pages A126-A140.

2023 Phase 1C Build LOS/Capacity Analysis

The turning movements at the unsignalized intersection of Middle Country Road and the proposed site driveway are calculated to operate at LOS C or better during the peak hours. The turning movements at the unsignalized intersection of Middle Country Road and Fresh Pond Avenue are calculated to continue to operate with capacity issues during the weekday evening and Saturday midday peak hours. The study intersections are calculated to operate generally consistent with the findings of the 2023 Phase 1 No-Build Condition during the study peak hours. The Highway Capacity Analysis Detail Sheet for 2023 Phase 1C Build Traffic Conditions is appended to the TIS (included in Appendix L of this DEIS), on pages A141-A155.

Phase 1 of the proposed action would not result in significant adverse impacts to the traffic operations of the adjacent roadway network. Minor signal timing modifications to the nearby signalized intersection of Middle Country Road and Edwards Avenue are expected; however, it is important to note that per consultations with NYSDOT, this intersection will undergo roadway improvements, which may proactively mitigate any increases in delay integrated into the TIS. The proposed driveway and on-site layout have been designed to provide for effective access to and from the subject property and access condition.

2025 Phase 2 No-Build Condition Background Growth

The 2023 Phase 1 Build Condition traffic volume was grown to a future horizon year of 2025, which is when Phase 2 of the proposed action is expected to be fully constructed. Based on data provided by the NYSDOT Office of Technical Services' Traffic Monitoring Section, the existing traffic volumes at the study intersections were increased by one percent annually for two (2) years.

Other Planned Development Projects

As discussed above, the development horizons of EPCAL and the Calverton Industrial Subdivision extend beyond 2025 and would not impact the build-out and completion of Phase 2 of the proposed action. Traffic considerations for the other two developments are considered in volumes for Phase 2.

2025 Phase 2 No-Build Traffic Volumes

The background growth rate, one percent for two years, was applied to the 2023 Phase 1 Build Condition Traffic Volumes to calculate the 2025 Phase 2 No-Build Traffic Volumes for the weekday morning and evening peak hours for all three conditions. The 2025 Phase 2A No-Build Traffic Volumes, 2025 Phase 2B No-Build Traffic Volumes, 2025 Phase 2C No-Build Traffic Volumes are summarized in Figures 26 through 28 of the TIS (see Appendix L of this DEIS) and included in Table 23 below summarizes the LOS for the No Build and three Build Conditions.

Table 23 – Comparative Level of Service (Delay) Tables (A2)

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Table A2
Comparative Level of Service (Delay) Tables
X (n) = Level of Service (seconds of delay)

Intersection	Lane Group	2025 No-Build Condition A - Phase 2			2025 No-Build Condition B - Phase 2			2025 No-Build Condition C - Phase 2			2025 Build Condition A - Phase 2			2025 Build Condition B - Phase 2			2025 Build Condition C - Phase 2		
		AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)	AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)	AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)	AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)	AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)	AM Peak LOS (Delay)	PM Peak LOS (Delay)	SAT Peak LOS (Delay)
Middle Country Road (E/W) & Burman Boulevard (N/S)	EB Through	A (3.8)	A (4.3)	A (3.2)	A (3.8)	A (4.3)	A (3.2)	A (3.8)	A (4.3)	A (3.2)	A (3.9)	A (4.3)	A (3.3)	A (3.9)	A (4.3)	A (3.3)	A (3.9)	A (4.3)	A (3.3)
	EB Right	A (2.6)	A (3.3)	A (2.2)	A (2.6)	A (3.3)	A (2.2)	A (2.6)	A (3.3)	A (2.2)	A (2.6)	A (3.3)	A (2.2)	A (2.6)	A (3.3)	A (2.2)	A (2.6)	A (3.3)	A (2.2)
	WB Left	A (4.7)	A (5.0)	A (3.6)	A (4.7)	A (5.0)	A (3.6)	A (4.7)	A (5.0)	A (3.6)	A (4.8)	A (5.0)	A (3.6)	A (4.8)	A (5.0)	A (3.6)	A (4.8)	A (5.0)	A (3.6)
	WB Through	A (3.1)	A (5.4)	A (3.3)	A (3.1)	A (5.4)	A (3.3)	A (3.1)	A (5.4)	A (3.3)	A (3.1)	A (5.5)	A (3.3)	A (3.1)	A (5.5)	A (3.3)	A (3.1)	A (5.5)	A (3.3)
	NB Left	D (38.3)	D (38.0)	D (35.9)	D (38.3)	D (38.0)	D (35.9)	D (38.3)	D (38.0)	D (35.9)	D (38.3)	D (38.0)	D (35.9)	D (38.3)	D (38.0)	D (35.9)	D (38.3)	D (38.0)	D (35.9)
	NB Right	D (36.8)	D (41.1)	D (36.1)	D (36.8)	D (41.1)	D (36.1)	D (36.8)	D (41.1)	D (36.1)	D (36.8)	D (41.1)	D (36.1)	D (36.8)	D (41.1)	D (36.1)	D (36.8)	D (41.1)	D (36.1)
	Overall	**A (6.1)**	**B (12.7)**	**A (5.0)**	**A (6.1)**	**B (12.7)**	**A (5.0)**	**A (6.1)**	**B (12.7)**	**A (5.0)**	**A (6.1)**	**B (12.6)**	**A (5.0)**	**A (6.1)**	**B (12.6)**	**A (5.0)**	**A (6.1)**	**B (12.6)**	**A (5.0)**
Middle Country Road (E/W) & Edwards Avenue (N/S)	EB Left	B (13.7)	C (32.9)	C (22.3)	B (13.7)	C (32.9)	C (22.3)	B (13.7)	C (32.9)	C (22.3)	B (13.6)	C (34.5)	C (23.6)	B (13.6)	C (34.5)	C (23.6)	B (13.6)	C (34.5)	C (23.6)
	EB Left/Through/Right	C (30.9)	B (13.9)	B (13.8)	C (30.9)	B (13.9)	B (13.8)	C (30.9)	B (13.9)	B (13.8)	C (32.5)	B (15.3)	B (15.8)	C (32.5)	B (15.3)	B (15.8)	C (32.5)	B (15.3)	B (15.8)
	WB Left	D (50.6)	C (22.6)	C (23.8)	D (50.6)	C (22.6)	C (23.8)	D (50.6)	C (22.6)	C (23.8)	D (52.4)	C (25.8)	C (27.6)	D (52.4)	C (25.8)	C (27.6)	D (52.4)	C (25.8)	C (27.6)
	WB Left/Through/Right	B (10.7)	B (18.8)	B (13.0)	B (10.7)	B (18.8)	B (13.0)	B (10.7)	B (18.8)	B (13.0)	B (10.6)	B (19.9)	B (13.8)	B (10.6)	B (19.9)	B (13.8)	B (10.6)	B (19.9)	B (13.8)
	NB Left	E (60.9)	C (35.0)	C (29.8)	E (60.9)	C (35.0)	C (29.8)	E (60.9)	C (35.0)	C (29.8)	F (95.4)	D (36.6)	C (30.0)	F (95.4)	D (36.6)	C (30.0)	F (95.4)	D (36.6)	C (30.0)
	NB Left/Through/Right	C (34.9)	C (23.6)	C (24.4)	C (34.9)	C (23.6)	C (24.4)	C (34.9)	C (23.6)	C (24.4)	D (35.3)	C (24.2)	C (23.8)	D (35.3)	C (24.2)	C (23.8)	D (35.3)	C (24.2)	C (23.8)
	SB Left	D (40.9)	C (26.8)	C (29.4)	D (40.9)	C (26.8)	C (29.4)	D (40.9)	C (26.8)	C (29.4)	D (41.3)	C (27.5)	C (28.9)	D (41.3)	C (27.5)	C (28.9)	D (41.3)	C (27.5)	C (28.9)
	SB Left/Through/Right	D (36.4)	C (25.3)	C (22.9)	D (36.4)	C (25.3)	C (22.9)	D (36.4)	C (25.3)	C (22.9)	D (36.8)	C (25.9)	C (22.4)	D (36.8)	C (25.9)	C (22.4)	D (36.8)	C (25.9)	C (22.4)
	Overall	**C (31.2)**	**B (20.0)**	**B (17.3)**	**C (31.2)**	**B (20.0)**	**B (17.3)**	**C (31.2)**	**B (20.0)**	**B (17.3)**	**D (36.0)**	**C (21.1)**	**B (18.3)**	**D (36.0)**	**C (21.1)**	**B (18.3)**	**D (36.0)**	**C (21.1)**	**B (18.3)**
Middle Country Road (E/W) & Fresh Pond Avenue (N/S)	EB Left				A (8.1)	B (10.0)	A (9.5)	A (8.1)	B (10.0)	A (9.5)				A (8.1)	B (10.1)	A (9.6)	A (8.1)	B (10.1)	A (9.6)
	EB Left/Through/Right	A (6.6)	A (5.7)	A (6.7)							A (6.9)	A (5.7)	A (6.8)						
	WB Left	A (3.1)	A (3.3)	A (3.6)	B (10.0)	A (9.1)	A (9.4)	B (10.0)	A (9.1)	A (9.4)	A (3.6)	A (3.4)	A (3.8)	B (10.1)	A (9.1)	A (9.4)	B (10.1)	A (9.1)	A (9.4)
	WB Through/Right	A (3.9)	A (7.9)	A (6.1)							A (3.9)	A (8.1)	A (6.1)						
	NB Left	D (36.3)	D (35.1)	D (35.1)	E (35.4)	F (166.9)	F (145.8)	E (35.4)	F (151.9)	F (137.5)	D (36.4)	D (35.3)	D (35.5)	E (36.4)	F (172.5)	F (155.0)	E (36.2)	F (161.6)	F (145.8)
	NB Through/Right	D (36.2)	D (36.0)	D (36.4)	C (16.9)	C (21.4)	C (22.0)	C (16.9)	C (20.8)	C (21.6)	D (36.2)	D (36.3)	D (36.7)	C (17.1)	C (21.9)	C (22.5)	C (17.1)	C (21.2)	C (22.0)
	SB Left/Through/Right	D (39.1)	D (36.0)	D (36.6)	C (24.2)	F (108.3)	F (101.1)	C (24.2)	F (101.7)	F (97.2)	D (39.4)	D (36.2)	D (36.9)	D (28.3)	F (132.1)	F (129.8)	D (28.2)	F (117.5)	F (121.3)
	Overall	**A (8.0)**	**A (9.5)**	**A (9.3)**							**A (8.3)**	**A (9.8)**	**A (9.7)**						
LIE Off-Ramp (N) & Edwards Avenue	NB Left	A (9.4)	A (8.9)	B (13.4)	A (9.4)	A (8.9)	B (13.4)	A (9.4)	A (8.9)	B (13.4)	A (9.6)	A (9.0)	B (13.8)	A (9.6)	A (9.0)	B (13.8)	A (9.6)	A (9.0)	B (13.8)
	NB Right	A (8.5)	A (8.4)	B (10.4)	A (8.5)	A (8.4)	B (10.4)	A (8.5)	A (8.4)	B (10.4)	A (8.5)	A (8.4)	B (10.5)	A (8.5)	A (8.4)	B (10.5)	A (8.5)	A (8.4)	B (10.5)
Middle Country Road & Site Driveway	WB Left	A (9.6)	A (9.1)	A (9.3)				B (10.0)	A (9.5)	A (9.7)	A (9.7)	A (9.1)	A (9.4)				B (10.3)	A (9.6)	A (9.8)
	WB Left/Through				A (3.3)	A (8.5)	A (6.1)							A (6.0)	A (9.6)	A (7.0)			
	EB Through/Right				A (5.3)	A (5.5)	A (6.0)							A (6.4)	A (6.0)	A (6.6)			
	NB Left	C (17.0)	C (21.6)	C (19.7)	D (36.0)	C (34.9)	C (34.9)	C (18.8)	C (24.1)	C (21.7)	C (17.8)	C (22.7)	C (20.7)	D (35.2)	D (35.3)	D (35.2)	C (20.7)	D (27.7)	C (24.9)
	NB Right	C (17.0)	B (14.9)	C (15.9)	D (41.4)	D (37.2)	D (37.2)	C (17.0)	B (14.9)	C (15.9)	C (17.5)	C (16.2)	C (17.3)	D (39.5)	D (40.4)	D (40.1)	C (17.5)	C (16.1)	C (17.3)
	Overall				**A (5.0)**	**A (8.5)**	**A (7.3)**							**A (7.0)**	**B (10.4)**	**A (9.2)**			

2025 Phase 2A No-Build LOS/Capacity Analysis

As discussed above, this condition is represented in the DEIS as Alternative 7. The turning movements at the unsignalized intersection of Middle Country Road and the proposed site driveway are calculated to operate generally consistent with the findings of the 2023 Phase 1A Build Condition during the weekday morning, weekday evening, and Saturday midday peak hours. The northbound left turn movement of the signalized intersection of Middle Country Road and Edwards Avenue exceeds LOS threshold D-E by 5.9 seconds during the weekday morning peak hour. The study intersections are otherwise calculated to operate generally consistent with the findings of the 2023 Phase 1A Build Condition during the peak hours. Additionally, the Highway Capacity Analysis Detail Sheet for 2025 Phase 1A No-Build Traffic Conditions are appended to the TIS (included in Appendix L of this DEIS), on pages A156-A170.

2025 Phase 2B No-Build LOS/Capacity Analysis

The signalized intersection of Middle Country Road and the proposed site driveway are calculated to operate generally consistent with the findings of the 2023 Phase 1B Build Condition during the weekday morning, weekday evening, and Saturday midday peak hours. The northbound left turn movement of the signalized intersection of Middle Country Road and Edwards Avenue exceeds LOS threshold D-E by 5.9 seconds during the weekday morning peak hour. The turning movements at the unsignalized intersection of Middle Country Road and Fresh Pond Avenue are calculated to continue to operate with capacity issues during the weekday evening and Saturday midday peak hours. The study intersections are otherwise calculated to operate generally consistent with the findings of the 2023 Phase 1B Build Condition during the study peak hours. Additionally, the Highway Capacity Analysis Detail Sheet for 2025 Phase 1B No-Build Traffic Conditions are appended to the TIS (included in Appendix L of this DEIS), on pages A171-A185.

2025 Phase 2C No-Build LOS/Capacity Analysis

Under the 2025 Phase 2C No-Build Condition, the turning movements at the unsignalized intersection of Middle Country Road and the proposed site driveway are calculated to operate generally consistent with the findings of the 2023 Phase 1C Build Condition during the weekday morning, weekday evening, and Saturday midday peak hours. The northbound left turn movement of the signalized intersection of Middle Country Road and Edwards Avenue exceeds LOS threshold D-E by 5.9 seconds during the weekday morning peak hour. The turning movements at the unsignalized intersection of Middle Country Road and Fresh Pond Avenue are calculated to continue to operate with capacity issues during the weekday evening and Saturday midday peak hours. The study intersections are otherwise calculated to operate generally consistent with the findings of the 2023 Phase 1C Build Condition during the study peak hours. The Highway Capacity Analysis Detail Sheet for 2025 Phase 1C No-Build Traffic Conditions are appended to the TIS (included as Appendix L of this DEIS), on pages A186-200.

2025 Phase 2 Build Condition

It is anticipated that the full build-out of the proposed action (Phase 2) would be completed by 2025. Therefore, trip generation, trip assignment/distribution, traffic volumes, and capacity analyses for the

proposed action as well as Conditions A, B, and C. Additionally, Phase 2 of the proposed action would not result in significant adverse impacts to the traffic operations of the adjacent roadway network.

Phase 2 Trip Generation

Trip generation projections for the proposed industrial park were prepared utilizing the ITE's Trip Generation Manual, 10th Edition. Trip generation rates associated with Land Use 130 "Industrial Park" were cited for the remaining 186,160 SF of the total 411,129-SF industrial park to be constructed during Phase 2 of the proposed development. As indicated in Table 24 below, the peak hour trips for the 2025 Phase 2 Build Condition include: 74 total trips (60 entering, with 54 passenger vehicles and 4 trucks, and 14 exiting, with 9 passenger vehicles and 5 trucks) during the weekday morning peak hour, 74 total trips (15 entering, with 12 passenger vehicles and 3 trucks, and 59 exiting, with 55 passenger vehicles and 4 trucks) during the weekday evening peak hour, and 82 total trips (26 entering, with 23 passenger vehicles and 3 trucks, and 56 exiting, with 51 passenger vehicles and 5 trucks) during the Saturday midday peak hour. It is the Applicant's intent to tenant Phase 2 with similar tenants as described for Phase 1. The commissary included in Phase 1 would support the employees of tenants from both phases of the proposed action.

Table 24 – Projected Trip Generation (Phase 1 and Phase 2)

			Weekday Morning Peak Hour			**Weekday Evening Peak Hour**			**Saturday Midday Peak Hour**		
			Enter	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
Phase 1	224,969 SF Industrial Park *Land Use 130*	Passenger Vehicles	68	11	79	16	65	81	28	61	89
		Trucks	5	6	11	3	6	9	4	6	10
		Total	**73**	**17**	**90**	**19**	**71**	**90**	**32**	**67**	**99**
Phase 2	186,160 SF Industrial Park *Land Use 130*	Passenger Vehicles	56	9	65	12	55	67	23	51	74
		Trucks	4	5	9	3	**4**	**7**	3	**5**	**8**
		Total	**60**	**14**	**74**	**15**	**59**	**74**	**26**	**56**	**82**
Total	411,129 SF Industrial Park	Passenger Vehicles	124	20	144	28	120	148	51	112	163
		Trucks	9	11	20	6	10	16	7	11	18
		Total	**133**	**31**	**164**	**34**	**130**	**164**	**58**	**123**	**181**

Trip Assignment/Distribution

The trips generated by Phase 2 of the proposed development were distributed based on the assignments described for Phase 1 of the development. The Site-Generated Truck Volumes, Site-Generated Passenger Vehicle Volumes, and Total Site Generated Traffic Volumes for Phase 2 Access Conditions A, B, and C are illustrated on the appended Figures 29 through 31, Figures 33 through 35, and Figures 37 through 39, respectively.

2025 Phase 2 Build Traffic Volumes

The site-generated trips were added to the 2025 Phase 2 No-Build Traffic Volumes to calculate the 2025 Phase 2 Build Traffic Volumes. The 2025 Phase 2A Build Traffic Volumes, 2025 Phase 2B Build Traffic Volumes, and 2025 Phase 2C Build Traffic Volumes are shown on appended Figures 32, 36, and 40, respectively in the TIS (see Appendix L of this DEIS) and in Table 23 above.

2025 Phase 2A Build LOS/Capacity Analysis

As noted above, Condition A is the Alternative 7, presented in Section 5.7 of this DEIS. The turning movements at the unsignalized intersection of Middle Country Road and the proposed site driveway are calculated to operate generally consistent with the findings of the 2025 Phase 2A No-Build Condition during the study peak hours. The northbound left turn movement of the signalized intersection of Middle Country Road and Edwards Avenue exceeds LOS threshold E-F by 15.4 seconds during the weekday morning peak hour under the 2025 Phase 2A No-Build Condition. The overall intersection is calculated to exceed the LOS C-D threshold by one second during the weekday morning peak hour, however this change is minimal and is therefore not anticipated to be perceptible to motorists traversing the roadway. The study intersections are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2A No-Build Condition during the study peak hours. The Highway Capacity Analysis Detail Sheet for 2025 Phase 2A Build Traffic Conditions is appended to the TIS (included in Appendix L of this DEIS) on pages A201-A215.

2025 Phase 2B Build LOS/Capacity Analysis

The turning movements at the signalized intersection of Middle Country Road and the proposed site driveway are calculated to operate generally consistent with the findings of the 2025 Phase 2B No-Build Condition during the study peak hours. The northbound left turn movement of the signalized intersection of Middle Country Road and Edwards Avenue exceeds LOS threshold E-F by 15.4 seconds during the weekday morning peak hour under the 2025 Phase 2B No-Build Condition. The overall intersection is calculated to exceed the LOS C-D threshold by one second during the weekday morning peak hour, however this change is minimal and is therefore not anticipated to be perceptible to motorists traversing the roadway. The subject intersection is otherwise calculated to operate generally consistent with the findings of the 2025 No-Build 2B Condition during the weekday morning, weekday evening, and Saturday midday peak hours. The turning movements at the unsignalized intersection of Middle Country Road and Fresh Pond Avenue are calculated to continue to operate with capacity issues during the weekday evening and Saturday midday peak hours. Under the 2025 Phase 2B Build Condition, the study intersections are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2B No-Build Condition during the study peak hours. The Highway Capacity Analysis Detail Sheet for 2025 Phase 2B Build Traffic Conditions is appended to the TIS (included in Appendix L of this DEIS), on pages A216-A230.

2025 Phase 2C Build LOS/Capacity Analysis

The turning movements at the unsignalized intersection of Middle Country Road and the proposed site driveway are calculated to operate generally consistent with the findings of the 2025 Phase 2C No-Build

Condition during the study peak hours. The 2025 Phase 2C No-Build Condition, the northbound left turn movement of the signalized intersection of Middle Country Road and Edwards Avenue exceeds LOS threshold E-F by 15.4 seconds during the weekday morning peak hour. The overall intersection is calculated to exceed the LOS C-D threshold by 1.0 second during the weekday morning peak hour, however this change is minimal and is therefore not anticipated to be perceptible to motorists traversing the roadway. The subject intersection is otherwise calculated to operate generally consistent with the findings of the 2025 No-Build 2C Condition during the weekday morning, weekday evening, and Saturday midday peak hours. The turning movements at the unsignalized intersection of Middle Country Road and Fresh Pond Avenue are calculated to continue to operate with capacity issues during the weekday evening and Saturday midday peak hours. Under the 2025 Phase 2C Build Condition, the study intersections are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2C No-Build Condition during the study peak hours. The Highway Capacity Analysis Detail Sheet for 2025 Phase 2C Build Traffic Conditions is appended to the TIS (included in Appendix L of this DEIS), on pages A231-A245.

Phase 2 Build Mitigation

Under the 2025 Phase 2A, 2B, and 2C Build Conditions, the northbound left turn movement at the signalized intersection of Middle Country Road and Edwards Avenue is to operate with capacity constraints during the weekday morning peak hour. Stonefield recommends minor signal timing modifications for the NYSDOT's consideration as mitigation. As discussed earlier in this section, there is a signal modification proposed by NYSDOT at this intersection. At this time, it is unknown how the NYSDOT intersection improvements would modify the Phase 2 Build Condition. The following modification would mitigate the calculated increase in delay and create more favorable operating conditions in the 2025 Phase 2A, 2B, and 2C Build Conditions. Table 25 below summarizes the LOS for the 2025 Mitigation Build Condition and is included as Table A3 in the TIS (see Appendix L of this DEIS). Additionally, the Highway Capacity Analysis Detail Sheet for 2025 Phase 2 Mitigation Build Condition A, 2025 Phase 2 Mitigation Build Condition B, and 2025 Phase 2 Mitigation Build Condition C are found in the TIS (see Appendix L of this DEIS), on pages A246, A247, and A248 respectively.

Table 25 – Comparative Level of Service (Delay) Tables (A3)

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Table A3
Comparative Level of Service (Delay) Tables
X (n) = Level of Service (seconds of delay)

Intersection	Lane Group	2025 Mitigation Build Condition A AM Peak LOS (Delay)	2025 Mitigation Build Condition B AM Peak LOS (Delay)	2025 Mitigation Build Condition C AM Peak LOS (Delay)	2025 Build Condition D - Max Build Out AM Peak LOS (Delay)	2025 Build Condition D - Max Build Out PM Peak LOS (Delay)	2025 Build Condition D - Max Build Out SAT Peak LOS (Delay)	2025 Build Condition E - Max Build Out AM Peak LOS (Delay)	2025 Build Condition E - Max Build Out PM Peak LOS (Delay)	2025 Build Condition E - Max Build Out SAT Peak LOS (Delay)	2025 Build Condition F - Max Build Out AM Peak LOS (Delay)	2025 Build Condition F - Max Build Out PM Peak LOS (Delay)	2025 Build Condition F - Max Build Out SAT Peak LOS (Delay)
Middle Country Road (E/W) & Burman Boulevard (N/S)	EB Through				A (3.9)	A (4.5)	A (3.4)	A (3.9)	A (4.5)	A (3.4)	A (3.9)	A (4.5)	A (3.4)
	EB Right				A (2.6)	A (3.3)	A (2.2)	A (2.6)	A (3.3)	A (2.2)	A (2.6)	A (3.3)	A (2.2)
	WB Left				A (4.9)	A (5.3)	A (3.7)	A (4.9)	A (5.3)	A (3.7)	A (4.9)	A (5.3)	A (3.7)
	WB Through				A (3.1)	A (5.6)	A (3.4)	A (3.1)	A (5.6)	A (3.4)	A (3.1)	A (5.6)	A (3.4)
	NB Left				D (38.3)	D (38.0)	D (35.9)	D (38.3)	D (38.0)	D (35.9)	D (38.3)	D (38.0)	D (35.9)
	NB Right				D (36.8)	D (41.1)	D (36.1)	D (36.8)	D (41.1)	D (36.1)	D (36.8)	D (41.1)	D (36.1)
	Overall				**A (6.0)**	**B (12.4)**	**A (5.0)**	**A (6.0)**	**B (12.4)**	**A (5.0)**	**A (6.0)**	**B (12.4)**	**A (5.0)**
Middle Country Road (E/W) & Edwards Avenue (N/S)	EB Left	B (13.4)	B (13.4)	B (13.4)	B (13.6)	D (38.9)	C (30.3)	B (13.6)	D (38.9)	C (30.3)	B (13.6)	D (38.9)	C (30.3)
	EB Left/Through/Right	D (45.4)	D (45.4)	D (45.4)	D (36.8)	B (19.7)	C (23.7)	D (36.8)	B (19.7)	C (23.7)	D (36.8)	B (19.7)	C (23.7)
	WB Left	D (50.6)	D (50.6)	D (50.6)	E (56.9)	C (33.1)	D (39.0)	E (56.9)	C (33.1)	D (39.0)	E (56.9)	C (33.1)	D (39.0)
	WB Left/Through/Right	B (10.4)	B (10.4)	B (10.4)	B (10.6)	C (23.2)	B (17.8)	B (10.6)	C (23.2)	B (17.8)	B (10.6)	C (23.2)	B (17.8)
	NB Left	E (58.6)	E (58.6)	E (58.6)	F (130.2)	E (60.4)	D (44.1)	F (130.2)	E (60.4)	D (44.1)	F (130.2)	E (60.4)	D (44.1)
	NB Left/Through/Right	C (27.2)	C (27.2)	C (27.2)	D (35.3)	C (25.6)	C (27.5)	D (35.3)	C (25.6)	C (27.5)	D (35.3)	C (25.6)	C (27.5)
	SB Left	C (31.8)	C (31.8)	C (31.8)	D (41.3)	C (29.1)	C (33.7)	D (41.3)	C (29.1)	C (33.7)	D (41.3)	C (29.1)	C (33.7)
	SB Left/Through/Right	C (28.3)	C (28.3)	C (28.3)	D (36.8)	C (27.2)	C (26.0)	D (36.8)	C (27.2)	C (26.0)	D (36.8)	C (27.2)	C (26.0)
	Overall	**D (36.5)**	**D (36.5)**	**D (36.5)**	**D (42.5)**	**C (27.1)**	**C (25.1)**	**D (42.5)**	**C (27.1)**	**C (25.1)**	**D (42.5)**	**C (27.1)**	**C (25.1)**
Middle Country Road (E/W) & Fresh Pond Avenue (N/S)	EB Left							A (8.2)	B (10.3)	A (9.7)	A (8.2)	B (10.3)	A (9.7)
	EB Left/Through/Right				A (7.1)	A (6.0)	A (7.1)						
	WB Left				A (3.9)	A (4.2)	A (4.8)	B (10.1)	A (9.2)	A (9.5)	B (10.1)	A (9.2)	A (9.5)
	WB Through/Right				A (4.0)	A (8.3)	A (6.2)						
	NB Left				D (36.4)	D (36.1)	D (36.1)	E (37.6)	F (221.4)	F (189.0)	E (37.3)	F (198.1)	F (176.4)
	NB Through/Right				D (36.3)	D (36.8)	D (37.0)	C (17.3)	C (23.4)	C (24.0)	C (17.3)	C (22.7)	C (23.5)
	SB Left/Through/Right				D (39.5)	D (37.3)	D (38.0)	D (32.1)	F (288.7)	F (282.3)	D (32.1)	F (264.7)	F (260.4)
	Overall				**A (8.6)**	**B (10.5)**	**B (10.3)**						
LIE Off-Ramp (N) & Edwards Avenue	NB Left				A (9.8)	A (9.4)	C (15.9)	A (9.8)	A (9.4)	C (15.9)	A (9.8)	A (9.4)	C (15.9)
	NB Right				A (8.5)	A (8.4)	B (10.5)	A (8.5)	A (8.4)	B (10.5)	A (8.5)	A (8.4)	B (10.5)
Middle Country Road & Site Driveway	WB Left				A (9.8)	A (9.3)	A (9.6)				B (10.4)	A (9.8)	B (10.3)
	WB Left/Through							B (11.8)	F (56.4)	C (28.0)			
	EB Through/Right							A (7.8)	A (8.1)	A (8.1)			
	NB Left				C (18.5)	D (29.0)	C (24.4)	C (34.4)	C (34.8)	D (35.1)	C (21.6)	F (62.3)	E (40.4)
	NB Right				C (16.9)	C (18.3)	C (19.0)	D (36.8)	D (42.1)	D (42.3)	C (16.9)	C (18.3)	C (19.0)
	Overall							**B (10.5)**	**D (36.8)**	**C (20.5)**			

Based on the above LOS table, Stonefield determined that reducing the cycle length from 113 second to 90 seconds, with a maximum split of 59 seconds allocated to the eastbound and westbound Middle Country Road approaches and a maximum split of 31 seconds allocated to the northbound and southbound Edwards Avenue approaches would be appropriate mitigation for the weekday morning peak hour. It should be noted that under the proposed mitigation, the eastbound right turn movement would exceed the LOS C-D threshold with a 12.9 second increase in delay from the 2025 Phase 2 Build Conditions. As discussed, the NYSDOT is presently in the design phase for improvements at the subject intersection. It should be noted that Stonefield is offering a potential signal timing mitigation; however, it is possible that the State accounts for additional capacity and the calculated increase in delay is never realized.

2025 Maximum Build-Out Scenario

The maximum build-out scenario is presented as Alternative 2 in Section 5.2 of the DEIS. This scenario assesses traffic generated from the most intense trip generating uses permitted on the subject property under the current zoning. This scenario is based on the Maximum Build-Out Plan with As-Of-Right Uses, (see Appendix Q of this DEIS) and includes full build of the proposed action by 2025.

Trip Generation

It is noted that Phase 1 of the maximum build-out scenario is consistent with the Phase 1 build-out proposed for the proposed development. Trip generation projections for the Phase 2 maximum build-out scenario were prepared utilizing the ITE's Trip Generation Manual, 10th Edition. Trip generation rates associated with Land Use 495 "Recreational Community Center," Land Use 860 "Wholesale Market," Land Use 925 "Drinking Place," and Land Use 140 "Manufacturing" were cited for the 50,990-SF recreation center, 48,704-SF wholesale space, and 48,704-SF indoor manufacturing/commercial brewery space, respectively. As indicated in Table 26 below, the cumulative peak hour trips for the maximum build-out component of Phase 2 is as followed: 144 total trips (98 entering and 46 exiting) during the weekday morning peak hour, 290 total trips (146 entering and 144 exiting) during the weekday evening peak hour, and 260 total trips (148 entering and 112 exiting) during the Saturday midday peak hour. The table below, as excerpted from the TIS, provides the weekday morning, weekday evening, and Saturday midday total trip generation volumes associated with Phase 1 and Phase 2 of the maximum build-out scenario.

Table 26 – Projected Trip Generation (Maximum Build-out Scenario)

			Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
			Enter	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
Phase 1	224,969 SF Industrial Park *Land Use 130*	Passenger Vehicles	68	11	79	16	65	81	28	61	89
		Trucks	5	6	11	3	6	9	4	6	10
		Total	**73**	**17**	**90**	**19**	**71**	**90**	**32**	**67**	**99**
Phase 2 (Maximum Build-Out)	50,990 SF Commercial Sports and Recreation Facility *Land Use 495*	Total	**59**	**31**	**90**	**55**	**63**	**118**	**29**	**26**	**55**
	48,704 SF Wholesale Business *Land Use 860*	Passenger Vehicles	17	9	26	42	38	80	41	38	79
		Trucks	1	0	1	3	3	6	4	3	7
		Total	**18**	**9**	**27**	**45**	**41**	**86**	**45**	**41**	**86**
	48,704 SF Indoor Manufacturing/ Commercial Brewery *Land Uses 140 and 925*	Passenger Vehicles	19	5	24	43	37	80	70	42	112
		Trucks	2	1	3	3	3	6	4	3	7
		Total	**21**	**6**	**27**	**46**	**40**	**86**	**74**	**45**	**119**
Total	Maximum Build-Out Scenario	Passenger Vehicles	163	56	219	156	203	359	168	167	335
		Trucks	8	7	15	9	12	21	12	12	24
		Total	**171**	**63**	**234**	**165**	**215**	**380**	**180**	**179**	**359**

The maximum build-out scenario is anticipated to generate a total of 234 trips during the weekday morning peak hour, 380 trips during the weekday evening peak hour, and 359 trips during the Saturday midday peak hour. The truck trip generation was evaluated with respect to data published within the ITE's Trip Generation Manual, 10th Edition Supplement, for Land Use 140 "Manufacturing" and applied to the wholesale and indoor manufacturing/commercial brewery projected trips. Eight percent of site-generated traffic during the weekday morning peak hour and seven percent of site-generated traffic during the weekday evening peak hour is comprised of trucks. The ITE does not provide data for truck trip generation during the Saturday midday peak hour. However, it is assumed that a portion of the Saturday midday peak hour traffic would be comprised of trucks. Therefore, the truck percentage for the weekday evening peak hour was applied to the Saturday midday peak hour.

In Table 27 below, excerpted from the TIS, a comparison is provided of the proposed Phase 2 trip generation and the maximum build-out scenario under Phase 2. As the maximum build-out of Phase 1 is consistent with the Phase 1 build-out, there would be no increase in trip generation.

Table 27 – Phase 2 Trip Generation Comparison

	Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Phase 2	186,160 SF Industrial Park *Land Use 130*	60	14	74	15	59	74	26	56	82
Phase 2 (Maximum Build-Out)	50,990 SF Commercial Sports and Recreational Facility *Land Use 495*	59	31	90	55	63	118	29	26	55
	48,704 SF Wholesale Business *Land Use 860*	18	9	27	45	41	86	45	41	86
	48,704 SF Indoor Manufacturing/Commercial Brewery *Land Uses 140 and 925*	21	6	27	46	40	86	74	45	119
	NET	**+38**	**+32**	**+70**	**+131**	**+85**	**+216**	**+122**	**+56**	**+178**

Trip Assignment/Distribution

The trips generated by Phase 1 and Phase 2 of the maximum build-out scenario were distributed based on the assignments described for Phase 1 and Phase 2 of the proposed action. The Site-Generated Truck Volumes, Site-Generated Passenger Vehicle Volumes, and Total Site Generated Traffic Volumes for the maximum build-out scenario for Access Conditions A, B and C, which are herein referred to as Conditions D, E, and F, respectively, are illustrated on the appended Figures 41 through 43, Figures 45 through 47, and Figures 49 through 51, respectively.

2025 Maximum Build-Out Traffic Volumes

The site-generated trips were added to the 2025 Phase 2 No-Build Traffic Volumes to calculate the 2025 Maximum Build-Out Scenario Traffic Volumes. The 2025 Phase 2D Build Traffic Volumes, 2025 Phase 2E Build Traffic Volumes, and 2025 Phase 2F Build Traffic Volumes and are shown on appended Figures 44, 48, and 52, respectively. Table 25 above summarizes the LOS for the three maximum build out conditions.

Phase 2D Build LOS/Capacity Analysis

Phase 2D is the Maximum Development Alternative with a Cross-Access Agreement, as evaluated in the DEIS as Alternative 7 (Proposed Action with Cross-Access Agreement). The complete alternative analysis is presented in Section 5.7. of the DEIS. Under the 2025 Phase 2D Build Condition, the northbound left movement at the unsignalized intersection of Middle Country Road and the proposed site driveway exceeds the LOS C-D threshold during the weekday evening peak hour. The turning movements at the subject intersection are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2A No-Build Condition during the study peak hours. The signalized intersection of Middle Country Road and Fresh Pond Avenue is calculated to exceed the overall LOS A-B threshold during the weekday evening and Saturday midday peak hours. The subject intersection is otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2A No- Build Condition during the study peak hours. The signalized intersection of Middle Country Road and Edwards Avenue is calculated to exceed the overall LOS C-D threshold during the weekday morning peak hour and the overall LOS B-C threshold during the weekday evening and Saturday midday peak hours. The northbound left turn movement of the subject intersection increases in delay to a LOS F, E, and D during the weekday morning, weekday evening, and Saturday midday peak hours, respectively. The westbound left turn movement of the subject intersection is calculated to exceed the LOS D-E threshold during the weekday morning peak hour and the LOS C-D threshold during the Saturday midday peak hour. The subject intersection is otherwise calculated to operate generally consistent with the findings of the 2025 No- Build 2A Condition during the weekday morning, weekday evening, and Saturday midday peak hours. Under the 2025 Phase 2D Build Condition, the study intersections are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2A No-Build Condition during the study peak hours. The Highway Capacity Analysis Detail Sheet for 2025 Phase 2D Build Traffic Conditions is appended to the TIS (included in Appendix L of this DEIS), on pages A249-A263.

Phase 2E Build LOS/Capacity Analysis

Under the 2025 Phase 2E Build Condition, the signalized intersection of Middle Country Road and the proposed site driveway are calculated to exceed the overall LOS A-B threshold during the weekday morning peak hour. Further, the overall intersection is calculated to increase from LOS A to LOS D during the weekday evening peak hour and is calculated to increase from LOS A to LOS C during the weekday evening peak hour. It is also important to note that the westbound left turn movement is calculated to increase from LOS A during all study hours to LOS B, LOS F, and LOS C during the weekday morning, weekday evening, and Saturday midday peak hours, respectively. The subject intersection is otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2B No-Build Condition. The signalized intersection of Middle Country Road and Edwards Avenue is calculated to exceed the overall LOS C-D threshold during the weekday morning peak hour and the overall LOS B-C threshold during the weekday evening and Saturday midday peak hours. It is important to note that the northbound left turn movement of the subject intersection increases in delay to a Level of Service F, E, and D during the weekday morning, weekday evening, and Saturday midday peak hours, respectively. Additionally, it is noted that the westbound left movement of the subject intersection is calculated to exceed the LOS D-E threshold during the weekday morning peak hour and the LOS C-D threshold during the Saturday midday peak hour. The subject intersection is otherwise calculated to operate generally consistent with the findings of the 2025 No-Build 2B Condition during the weekday morning, weekday evening, and Saturday midday peak hours. The turning movements at the unsignalized intersection of

Middle Country Road and Fresh Pond Avenue are calculated to continue to operate with capacity issues during the weekday evening and Saturday midday peak hours. Under the 2025 Phase 2E Build Condition, the study intersections are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2B No-Build Condition during the study peak hours. The Highway Capacity Analysis Detail Sheet for 2025 Phase 2E Build Traffic Conditions is appended to the TIS (included in Appendix L of this DEIS), on pages A264-A278.

Phase 2F Build LOS/Capacity Analysis

Under the 2025 Phase 2F Build Condition, the northbound left turn movement at the unsignalized intersection of Middle Country Road and the proposed site driveway is calculated to increase from LOS C to LOS F during the weekday evening peak hour and from LOS C to LOS E during the Saturday midday peak hour. The turning movements at the subject intersection are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2C No-Build Condition during the study peak hours. The signalized intersection of Middle Country Road and Edwards Avenue is calculated to exceed the overall LOS C-D threshold during the weekday morning peak hour and the overall LOS B-C threshold during the weekday evening and Saturday midday peak hours. The northbound left turn movement of the subject intersection increases in delay to a Level of Service F, E, and D during the weekday morning, weekday evening, and Saturday midday peak hours, respectively. The westbound left movement of the subject intersection is calculated to exceed the LOS D-E threshold during the weekday morning peak hour and the LOS C-D threshold during the Saturday midday peak hour. The subject intersection is otherwise calculated to operate generally consistent with the findings of the 2025 No-Build 2C Condition during the weekday morning, weekday evening, and Saturday midday peak hours. The turning movements at the unsignalized intersection of Middle Country Road and Fresh Pond Avenue are calculated to continue to operate with capacity issues during the weekday evening and Saturday midday peak hours. Under the 2025 Phase 2F Build Condition, the study intersections are otherwise calculated to operate generally consistent with the findings of the 2025 Phase 2C No-Build Condition during the study peak hours. The Highway Capacity Analysis Detail Sheet for 2025 Phase 2F Build Traffic Conditions is appended to the TIS (included in Appendix L of this DEIS), on pages A279-A293.

Projected Construction Trip Generation

The TIS addressed trip generation associated with site construction to assess the short-term impacts of the project. As the proposed development would be constructed over 2 phases, trip volumes have been projected and associated with the following activities: removal of material from clearing and grubbing, removal of topsoil, transporting of fill material, construction equipment delivery, and other debris removal. It is noted that the roadways in the project site vicinity, such as Middle Country Road, Edwards Avenue, etc. permit truck traffic. Any carting of debris or deliveries of material and equipment via heavy vehicle would be required to comply with State and local regulations on truck traffic.

Based upon an estimated load of 20 CY per construction vehicle, Phase 1A is projected to generate 30 trucks for removal of material associated with clearing and grubbing (i.e., 600 CY of trees and shrubs), 1,917 trucks associated with the removal of topsoil (38,340 CY), and approximately 10 construction equipment deliveries. This equates to approximately 10-15 trucks per day. Phase 1B is projected to generate 35 trucks for removal of material associated with clearing and grubbing (i.e., 699 CY of trees and shrubs), approximately 10 construction equipment deliveries, and 75-90 roll off dumpsters

associated with debris removal. Construction traffic during Phase 1B of the proposed action would equate to approximately 1-2 trucks per week. It is noted that all material to be removed during Phase 1 of the proposed development (Phase 1A and Phase 1B) would be expected to occur over a period of approximately six months.

Phase 2 is projected to generate 13 trucks for removal of material for clearing and grubbing (256 CY), 309 trucks for the removal of topsoil (6,172 CY), 314 trucks for exporting cut material (6,279 CY), approximately 10 construction equipment deliveries, and 62-75 roll off dumpsters associated with debris removal. This would equate to approximately 2 trucks per day. It is noted that all material to be removed during Phase 2 of the proposed development would be expected to occur over a period of approximately six months.

Overall, based on the above, traffic associated with construction of the proposed development would not have a significant adverse impact on the surrounding roadway network.

Site Circulation/Parking Supply

Under the proposed action, access to the subject property would be provided via one (1) driveway along Middle Country Road. Construction of the maximum build-out would be completed in two phases. Phase 1 would consist of four (4) buildings to be occupied by various tenants with a total of 224,969 SF of gross floor area and a 1,500-SF commissary located to the north of Building 2 as an ancillary offering intended to serve employees of the various tenants. Phase 2 would consist of an additional four (4) buildings with a total of 186,160 SF of gross floor area. The complete build-out would result in a 411,129-SF industrial park with anticipated tenants to include warehouse, wholesale, and indoor manufacturing facilities. Each of the buildings would be subdivided into spaces to be occupied by various tenants. Buildings constructed on the western side of the project site would each provide space for ten (10) tenants and the buildings constructed on the eastern side of the property would each provide space for five (5) to six (6) tenants. In total, 101 loading spaces would be provided. All loading spaces would be located on the outer extents of the property, between the lot lines and the buildings. Passenger vehicle parking would be concentrated in the center portion of the subject property between the two rows of buildings. The parking field would be separated by a 26-foot, two (2)-way drive aisle. Approximately 40 feet of landscape buffer would be provided along the eastern and western borders of the subject property.

The Town of Riverhead ordinance requires one (1) parking stall per 400 SF of gross floor area for a manufacturing establishment and one (1) parking stall per 1,000 SF up to 5,000 SF of gross floor area plus one (1) parking stall per additional 10,000 SF of gross floor area for a warehouse. For both phases of the proposed industrial park, this equates to 324 required spaces. The proposed action would provide 326 total parking spaces, inclusive of sixteen (16) ADA accessible parking spaces, which meets the parking requirement. The spaces would be 10 feet wide by 20 feet deep in accordance with the Town ordinance and industry standards. The 1,500-SF commissary is excluded from the parking requirement calculation as it is an ancillary use to the industrial park and is anticipated to be patronized by employees of the same. It is noted that a select number of electric vehicle charging stations would be included in the parking areas.

The proposed development has been designed for the separation of truck and vehicular traffic, safe pedestrian movements, and complies with the Town of Riverhead parking standards.

Conclusions

Phase 1 of the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network. Phase 2 of the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network with minor signal timing modifications to the nearby signalized intersection of Middle Country Road and Edwards Avenue. Per consultations with NYSDOT, the subject intersection will undergo roadway improvements which may proactively mitigate any increases in delay which are calculated within the analysis completed for the proposed action. The site driveway and on-site layout have been designed to provide for effective access to and from the subject property and access condition. Access Conditions A, B, and C are anticipated to provide acceptable LOS at the project site driveway while generally maintaining or improving the existing roadway conditions within the study network. Based on the Town of Riverhead Zoning Ordinance, the parking supply would be sufficient to support this project. Therefore, no significant adverse impacts to transportation are anticipated.

3.2.3 Proposed Mitigation

Based on the TIS, the proposed action is not expected to result in any significant adverse impacts to transportation. Per consultations with NYSDOT, the signalized intersection of Middle Country Road and Edwards Avenue will undergo roadway improvements inclusive of the addition of exclusive left-turn lanes at all approaches as well as realignment of the northbound and southbound Edwards Avenue approaches to address this current slight offset. In addition to the improvements at the signalized intersection of Middle Country Road and Edwards Avenue that will be undertaken by the NYSDOT, the proposed TIS recommends a potential signal timing modification at this signalized intersection for the NYSDOT's consideration. As described in Section 3.2.2 above and shown in Table 25**Error! Reference source not found.** of this DEIS above, the signal timing modification will mitigate the calculated increase in delay and create more favorable operating conditions in all 2025 Phase 2 Build Conditions.

3.3 Aesthetic Resources

3.3.1 Existing Conditions

To evaluate the existing viewshed of the subject property and the surrounding area, site and area visits were conducted on April 15, 2020, May 5, 2020, October 14, 2020, and December 10, 2020. Photographs taken during these site visits, with corresponding dates, are included in Appendix K of this DEIS. Figure 21 in Appendix A of this DEIS shows the location of publicly accessible views of the subject property as verified during the field visits.

Subject Property

The subject property is currently undeveloped and consists predominantly of former agricultural land with select woodland areas (see Photographs 1 and 2 in Appendix K of this DEIS). Existing, publicly accessible, views of the subject property exist along the project site frontage and frontage of adjacent properties to the west and east on Middle Country Road, and also to the south, southeast, west and

southwest along the EPCAL walking trail (see Figure 22 for the EPCAL Walking Trail in Appendix A of this DEIS).

Generally, the aesthetic character of the subject property is defined by its former agricultural land use and its relatively gently sloping topography from Middle Country Road to the south. The existing view of the subject property from passersby along the project site frontage on Middle Country Road includes views of mature forested trees with a portion along the northwest corner that is open with low brushlands. It is noted that Middle Country Road is lined with overhead utility wires, which is captured in the existing viewshed of the subject property (see Photograph 3 in Appendix K of this DEIS). The views of passersby traveling west on Middle Country Road is that of the Tractor Supply Company retail store with associated surface parking stalls, small landscaped trees that border the Tractor Supply Company and the subject property (see Photograph 4 in Appendix K of this DEIS). The existing woodland on the subject property can also be seen from the commercial restaurant and gift shop to the northwest of the project site along Middle Country Road (see Photograph 5 in Appendix K of this DEIS). The views of passersby along Middle Country Road to the east, along the northwest portion of the adjacent agricultural use, is that of the forested trees on the northeast corner of the subject property.

To the south, along the EPCAL walking trail, a chain-link fence with barbed wire separates the subject property. Overall, the subject property can be seen from the EPCAL walking trail (see Figure 21 in Appendix A of this DEIS and Photographs 6 through 8 in Appendix K of this DEIS). However, it is noted that from select areas, existing trees and vegetation abutting the chain-link fence obscures any clear view into the subject property. To the southeast of the project site, a portion of the existing woodland can be seen from the EPCAL walking trail. However, the overall property is screened by the existing woodland along the property boundary and along the EPCAL walking trail. The existing views of passersby along the EPCAL walking trail to the west of the subject property is that of vegetation, a chain-link fence with barbed wire, the Tractor Supply Company building, Sky Materials operations, and the forested area of the subject property in the horizon (see Photographs 9 and 10 in Appendix K of this DEIS). It is noted that views of the subject property are limited to mostly the tops of the existing forested trees on-site. Furthermore, views of the project site are only from select points along the EPCAL walking trail to the west of the project site, as Sky Materials blocks many views of the subject property (see Figure 21 in Appendix A of this DEIS and Photograph 11 in Appendix K of this DEIS).

Surrounding Area

The aesthetic character of the area surrounding the subject property can generally be described as mixed-use, with commercial, retail, agricultural with some industrial land use and one-to-two-story single-family residences (see Photographs 4, 5, 7, 12 through 17, and 19 through 24 in Appendix K of this DEIS). On the north side of Middle Country Road, the views are predominantly agricultural land interspersed with one-to-two-story single-family residences, and small scale, one-to-two-story commercial buildings (see Photographs 14 through 18 in Appendix K of this DEIS). The streetscape along Middle Country Road includes views of overhead utility wires and intermittent views of mature trees lining portions of existing properties (see Photographs 1, 3, 4, 5, 14 through 17, and 21 through 24 in Appendix K of this DEIS).

3.3.2 Potential Impacts

To assess the potential impacts of the proposed development, the project architect prepared building floor plans, building elevations and renderings/photo-simulations from various vantage points of the proposed industrial use which are included in Appendix M of this DEIS.

As shown on the Overall Site Plan (see Sheet C-3 in Appendix C of this DEIS) and architectural renderings (see Appendix M of this DEIS), the industrial buildings would be set back from the roadway to maintain the existing viewshed of open space. The use of generous landscaping and open space buffers is intended to preserve the rural appearance and minimize views into the property from Middle Country Road.

The proposed building design includes materials such as corrugated steel metal panels, aluminum glass façades, and concrete panels (see Architectural Building Plans and Elevations Sheet A2.1, Sheet A2.2 and Sheet A2.3 in Appendix C of this DEIS), with the north and south façades of all eight (8) buildings being similar. The north and south façades would contain vertical corrugated steel metal panels with aluminum glass clearstory windows along the top portion of the building façade (at approximately 27 feet) (see Sheet A2.1 in Appendix C of this DEIS). The north façade for Building 2 would contain vertical corrugated steel metal panels with aluminum glass clearstory windows along the top portion of the building façade and aluminum glass façade with white metal panels for the 1,500± SF commissary (see Sheet A2.1 in Appendix C of this DEIS). The top of the roofs for all eight (8) buildings would be lined with white metal panels which would act as a white roof membrane to conserve energy use and would be equipped with solar panels (see Section 3.6.2 of this DEIS).

The inner façades of all eight (8) buildings facing the center drive aisle (i.e., the western façades of Building 2, Building 4, Building 6 and Building 8 and the eastern façades of Building 1, Building 3, Building 5 and Building 7) would be designed with the same building material and would look virtually the same. The inner façades of these buildings would contain corrugated steel metal panels with aluminum glass façade bordering the base of the buildings extending approximately eight feet from ground level. The north and south ends of each building would include a concrete panel along the base of the building also extending approximately eight feet from ground level (see Sheet A2.1 through Sheet A2.3 in Appendix C of this DEIS).

The eastern façade of Building 2, Building 4, Building 6, and Building 8 (facing towards the subject property's eastern boundary) would have the same design. As shown on Sheet A2.1 (see Appendix C of this DEIS), these building façades would contain vertical corrugated steel metal panels with 16±-foot high concrete panels surrounding the loading dock doors for each building. The proposed commissary attached to the north side of Building 2 would reach a top height of 18± feet and would contain an aluminum glass façade with a white metal panel along the roof and base. The western façade of Building 1, Building 3, Building 5, and Building 7 (facing towards the subject property's western boundary) would have the same design. As shown on Sheet A2.3 (see Appendix C of this DEIS), these building façades would contain corrugated steel metal panels with overhead garage doors extending 14± feet in height.

The prepared renderings/photo-simulations from various vantage points were established to depict aerial views of the overall proposed development as well as publicly accessible ground views from Middle Country Road and the EPCAL walking trail where the buildings may be visible (see Site Aerial in Appendix M of this DEIS). The vantage points were as follows:

- North entrance view along Middle Country Road.
- Street view along Middle Country Road.
- EPCAL walking trail south of the proposed development.
- North aerial view.
- South aerial view.

As depicted on the photo-simulations (see View 1 – Entrance and View 2 – Middle Country Road in Appendix M of this DEIS), views of the subject property from Middle County Road would include the existing overhead utility poles, the proposed landscaping, lighting and ornamental fence within the front yard and the proposed sidewalk along the site frontage. Portions of Buildings 1 and 2 would also be visible. The proposed landscaping would obscure direct views into the project site. Clear views into the subject property would be limited to the site access point along Middle Country Road, which is approximately 55 feet in width.

As noted in Section 1.1.1 of this DEIS, the proposed action has been modified since the adoption of the Final Scope to relocate the drainage area (i.e., recharge basin) from the front yard setback to a single basin in the rear yard, thus eliminating the publicly accessible view from Middle Country Road. As shown on the photo-simulation (see View 3 - Bike Path in Appendix M of this DEIS), views for passersby along the EPCAL walking trail to the south of the subject property would be that of the existing chain-link fence with barbed wire, the proposed vegetation and portions of the recharge basin, with portions of select buildings (Buildings 7 and 8) as well as the center drive aisle. However, the proposed vegetative buffers would largely obscure views of the proposed development from the EPCAL walking trail.

In order to accommodate the proposed recharge basin in the rear yard, Building 4, Building 6, Building 7 and Building 8 have been reduced in building area by 11,335 SF and setback approximately 111 feet further as the minimum depth of the rear yard was increased (i.e., from 84.2± feet to 195.2± feet). The decrease in building area and increase in rear yard depth would further reduce publicly accessible views of the proposed buildings from the EPCAL walking trail. Furthermore, as noted above, the installation of generous landscaping provided within the rear yard along the southern portion of the project site would also obscure clear views of the proposed buildings, center drive aisle and recharge basin from passersby along the EPCAL walking trail south of the subject property.

As indicated in Section 3.1.1 of this DEIS, east of the subject property is an active sod farm. Views of the proposed development to the east of the subject property would consist of the existing forested land on the active sod farm's western boundary, the proposed chain-link fence and the proposed vegetated buffers (see View 4 – North Aerial and View 5 – South Aerial in Appendix M of this DEIS). It is noted that these views are not publicly accessible. The overall subject property cannot be seen as the existing forested land along the western boundary of the sod farm site and the proposed vegetative buffers along the subject property's eastern boundary would obscure clear views of the proposed development.

As noted in Section 3.3.1 of this DEIS, the existing views of passersby along the EPCAL walking trail to the west of the subject property is that of vegetation, a chain-link fence with barbed wire, the Tractor Supply Company building, Sky Materials operations, and the forested area of the subject property in the horizon. Many views of the subject property along the EPCAL walking trail to the west of the project site

are limited to mostly the tops of the existing forested trees on-site from select points as Sky Materials blocks many views of the subject property. Upon implementation of the proposed action, views of the existing forested area on the subject property would be eliminated in the distant horizon and it is expected that the proposed buildings would not be visible from these areas of the EPCAL walking trail west of the subject property.

While the proposed project would change the visual character of the subject property from undeveloped vacant land, the proposed project would be consistent with existing development in the immediate surrounding area. The proposed development would maintain large setbacks from Middle Country Road with aesthetically-pleasing landscaping in the front yard, similar to the Tractor Supply site west of the subject property. The proposed development would maintain the existing viewshed of open space and spread out land uses along Middle Country Road. The use of generous landscaping and open space buffers is intended to protect the existing rural appearance of the area. Overall, the proposed development is not expected to result in significant adverse impacts on aesthetic resources including from publicly accessible views.

Proposed Lighting

As described in Section 1.2.5 of this DEIS, the proposed site lighting would consist of exterior site lighting and wall-mounted fixtures on the proposed buildings (see Sheets C-24 through C-28 in Appendix C of this DEIS). Based on the proposed design, the proposed exterior site lighting would consist of pole-mounted light fixtures at 16± feet in height and equipped with housing shields to direct light downward. The proposed wall-mounted fixtures would be mounted at 16± feet above grade level and equipped with housing shields. All lighting is proposed to be LED and dark sky compliant.

The proposed area light poles would be installed along the east and west sides of the site access point from Middle Country Road, along the east side of the subject property between the proposed landscaped buffers and the eastern fire lane as well as two area light poles at the northside and southside of the subject property between the western proposed landscaped buffers and the western fire lane. The remainder of the project site would be illuminated with wall-mounted building fixtures. A photometric analysis of each proposed lighting pole was performed as illustrated on the proposed Lighting Plans and indicates there would be no off-site or trespass lighting with the proposed lighting in place. All lamp poles along the internal drive aisles and adjacent to surface parking areas as well as all wall-mounted, building fixtures would include a shielded LED luminaire to direct all light downwards with no upward glare.

As analyzed in Section 3.1.2 of this DEIS, the proposed lighting would comply with Chapter 301, *Article XLIX Exterior Lighting*, of the Town Code, specifically §§301-256 and 301-259. The proposed site lighting has been designed to illuminate the subject property in an efficient manner that would minimize nuisances from light intensity, glare and light trespass.

Overall, the proposed lighting plan is not expected to result in significant adverse impacts on aesthetic resources.

3.3.3 Proposed Mitigation

The proposed action has incorporated the following measures that effectively mitigate any potential adverse impacts:

- The industrial buildings will be set back from the roadway to maintain the existing viewshed of open space. The use of generous landscaping and open space buffers is intended to preserve the rural appearance and minimize views into the property from Middle Country Road.

- The proposed action includes generous landscaping along the side and rear yards to effectively screen the development from the adjacent properties and the EPCAL walking trail, respectively.

- The proposed action has been modified to relocate the proposed recharge basins along the project site frontage to a single recharge basin to the south of the project site to minimize publicly accessible views of the recharge basin from Middle Country Road, which was noted as a potential visual concern during the public scoping period.

- The proposed action has been modified to increase the depth of the rear yard for the installation of the recharge basin and for additional landscaping which will obscure views of the proposed buildings and recharge basin from the EPCAL walking trail.

- The proposed lighting will be downlit and shielded to avoid off-site light trespass and upward glare.

3.4 Historic and Archaeological Resources

3.4.1 Existing Conditions

Review of the New York State OPRHP Cultural Resource Information System (CRIS) indicates that the subject property is located within an archaeological sensitive area (see Figure 23 in Appendix A of this DEIS). Accordingly, on April 16, 2020, the proposed development was submitted to OPRHP. In response, via correspondence dated April 22, 2020 (see Appendix N of this DEIS), the OPRHP recommended "…a Phase IA/IB archaeological survey for components of the project that will involve ground disturbance, unless substantial prior ground disturbance can be documented. A Phase IA/IB survey is designed to determine the presence or absence of archaeological sites or other cultural resources in the project's Area of Potential Effects (APE)." Accordingly, the project archaeologist, Carol Weed, MA, RPA, performed Phase IA, Phase IB, and Phase II archaeological assessments for the subject property.

Phase IA Archaeological Assessment (May 2020)

The Phase 1A included a full project site walkover of the subject property, review of historic maps and literature, review of archaeological surveys that have been conducted within a one-mile radius, and review of cultural resources near the subject property (see Appendix N of this DEIS for the Phase 1A dated May 2020). The walkover was conducted on May 5, 2020 to assess the presence of potential archaeological remains and previous ground disturbance. For the purpose of the walkover, the subject

property was divided into three sections and oriented north-south (Areas 1 – 3), as follows: Area 1 was off-set from the west property line by distances ranging from about 25 feet to 75 feet; Area 2 included two fallow fields with one located in the northwest quadrant of the subject property and the second in the southeast quadrant of the subject property; and Area 3 extended from the west side of a larger depression south from Middle Country Road to the northern boundary of Area 2 and included the northeast quadrant wood lot.

During the walkover, Area 1 appeared to be stripped based on surface conditions. Dump 1 was identified within Area 1 along the western boundary line and featured dirt, brick, and glass. Area 2 included animal burrows, occasional broken glass and stray brick fragments, small pieces of gravel cobbles, and potential kettle pond features in the northeast quadrant. Area 3 included Dumps 2 through 4, a large push pile, potential kettle pond, and two building remnants (Features 1 and 2). Dump 2 consisted of lumber and other building fragments. Dump 3 consisted of earth and discarded household debris. Dump 4 consisted of whole and fragmentary brick and concrete items. All three dump sites contained significant amounts of building debris and material cultural. Feature 1 contained remnants of a molded, concrete block building. Feature 2 contained remnants of a cellar hole and concrete block line segments. Based on building materials, and map and aerial photograph data, these buildings date after 1873 (likely between 1901 and 1974).

Based on the Phase IA, a Phase IB archaeological assessment was recommended. In correspondence dated May 28, 2020, OPRHP accepted the Phase IA and concurred with the recommendation to complete a Phase IB based on the Phase IB work plan that was presented in the Phase IA.

Phase IB Archaeological Assessment

The Phase 1B was performed to evaluate potential significant areas by the project archaeologist and various staff from ACME Heritage Consultants. The Phase 1B fieldwork was completed between August 14, 2020 and September 6, 2020 to determine if any buried archaeological sites were present within the subject property (see Appendix N of this DEIS for the Phase IB dated September 2020). A total of 339 shovel test pits in Areas 2 and 3 of the subject property were completed.

The presence of Features 1 and 2 within Areas 2 and 3 that were identified in the Phase IA led to OPRHP identifying the project site as Unique Site Number (USN) 10306.001187 - Tintle Farm Site. The historic component of USN 10306.001187 included Feature 1 (large cement block barn), Feature 2 (a small house), and Feature 3 (a small well) which are all exclusively within Area 3. Indian Nation artifacts were recovered within the area of USN 10306.001187 and outside of the project site. Areas investigated outside of USN 10306.001187 that returned artifacts were identified as Isolated Finds (IFs) 1-3 and Loci's 1-4. The Phase IB concluded no additional work should be completed at IF's 1-3 or in the area of the historic-era ubiquitous field scatter. The Phase IB also concluded the Phase II should further investigate Loci's 2 and 3 and the northern portion of Locus 4 to refine the boundaries and confirm stratigraphic associations.

In correspondence dated October 14, 2020, OPRHP concurred that the Tintle Farm Site, which included the remnants of the 20th Century farmstead with Native American Artifacts, did not meet eligibility criteria of the New York State and National Registers of Historic Places (S/NRHP). In this correspondence, OPRHP concurred that additional investigations at Loci's 2, 3, and 4 and the three IFs

should occur due to presence of Native American artifacts and that there was not enough information to assess the potential eligibility of the areas. These Loci's were assigned USN 10306.001191 – Industrial Park Pre-Contact Site and that a Phase II archaeological investigation (Phase II) was warranted. The investigations from both the Phase IA and IB concluded the subject property had been used by both the Indian Nation and Historic-era use. The Phase II was undertaken to assess USN 10306.001191 Industrial Park Pre-Contact Site, Loci's 2-4.

Phase II Archaeological Assessment

The Phase II fieldwork was completed between December 10, 2002 and December 15, 2020 by the project archaeologist and ACME Heritage Consultants (see Appendix N of this DEIS for the Phase II dated February 2021). The Phase II fieldwork included chipped stone and historic artifact analyses. The supplemental investigatory work included 22 additional shovel test pits and 26 Excavation Units (EU's) at Loci's 2-4 to define the boundaries of the three IFs and three loci identified in the Phase IB.

The Phase II shovel test pits did not yield additional cultural materials at IFs 1-3. Overall, USN 10306.001191 yielded a relatively low density and typological diversity of chipped stone artifacts, thereby suggesting various brief occupations rather than sustained habitation. The Phase II confirmed there were three discrete Loci and while they retained some degree of horizontal integrity, they have been disturbed vertically by modern plowing. The low density of artifacts recovered led to the conclusion that there were no additional archaeological considerations and performing additional work would not yield new information regarding potential archaeological or historic eligibility of the subject property. On February 23, 2021, OPRHP concurred with the findings of the Phase II and that USN 10306.001191 did not meet the eligibility criteria of either New York State or National Registers of Historic Places and no additional archaeological work was necessary.

3.4.2 Potential Impacts

As indicated above, the subject property was investigated for its archaeological significance through literature review, walk-throughs, shovel test pits, and historic photos. Based on the results of the Phase IB and Phase II and correspondence from OPRHP on February 23, 2021, OPRHP concurring that USN 10306.001191 did not meet the eligibility criteria of either New York State or National Registers of Historic Places, and thus, the subject property was deemed not significant and no additional work was recommended with regards to archaeological considerations. Accordingly, no significant adverse impacts to cultural resources would result from the proposed action.

3.4.3 Proposed Mitigation

As no significant adverse impacts would result, no mitigation measures are required.

3.5 Construction-Related Impacts

3.5.1 Proposed Construction Schedule and Activities

The proposed development would be constructed in two phases over a total duration of 42± months. As indicated on the Construction Phasing Plan (see Sheet C-29 in Appendix C of this DEIS), Phase 1A is estimated at six (6) months, Phase 1B is estimated at 18 months, and Phase 2 is also estimated at 18 months. The proposed commencement date is December 2021 in order to begin the clearing of vegetation within the permitted window of December 1 to February 28 for protection of the northern long-eared bat. Phase 1A is projected to end on or about May 2022 when Phase 1B would commence. With a projected 18 months for completion of Phase 1B, the entirety of Phase 1 is expected to be completed on or about August 2023. Full occupancy of the first four buildings is projected for 2023. Phase 2 is proposed to commence in January 2024 in order to clear vegetated areas within the aforementioned window, and with a projected 18 months for the entire phase, construction would be completed on or about June 2025. Full occupancy for the Phase 2 buildings is projected in 2025.

In accordance with §275-6.B.1.d. of the Town Code, the construction phasing has been addressed by the project engineer (see Sheet C-29 in Appendix C of this DEIS). It is acknowledged that Chapter 275 does not permit the disturbance of greater than 5.0 acres at any one time without approval from the NYSDEC. Due to the size of the project site, and with the proposed erosion and sediment controls in place, the Applicant sought approval from the NYSDEC and by electronic mail on July 15, 2020, the NYSDEC authorized the phasing plan as proposed (see Appendix E of this DEIS).

Phase 1 would include the first 226,469 SF of the overall 412,629 SF industrial park and would consist of four (4) buildings to be occupied by various tenants as well as a 1,500 SF cafeteria as an ancillary offering intended to serve employees of the various tenants. Phase 2 would include remaining 186,160 SF and would consist of the remaining four (4) buildings. Overall, as indicated on the Construction Phasing Plan (see Sheet C-29 in Appendix C of this DEIS) Phase 1 will be separated into two sections (Phase 1A and Phase 1B). Phase 1A would disturb 10.75± acres and once stabilized, the work within Phase 1B would disturb 12.64± acres. Phase 2 would disturb the remaining 6.86± acres.

Scope of Work

Phase 1A – Scope of Work

As shown on the Construction Phasing Plan (see Sheet C-29 in Appendix C of this DEIS), Phase 1 of the proposed action would be broken up into two sections (Phase 1A and Phase 1B) and would happen over a period of approximately 24± months (six± months for Phase 1A and 18± months for Phase 1B). The scope of work included during Phase 1A of the construction plan would include partial clearing of the project site within the limits of disturbance as shown on the Construction Phasing Plan (see Sheet C-29) (i.e., approximately 10.75 acres). Erosion control measures would be installed, including but not limited to the perimeter construction and silt fence of the entire project site as well as the Phase 1A erosion control measures (i.e., temporary construction and silt fence around Phase 1A construction, material stockpile areas for Phase 1A with locations to be determined by the construction contractor, temporary stabilized construction entrance with gates for all of Phase 1 construction, inlet protection, temporary

construction dumpster for all of Phase 1). Temporary construction trailers and bathrooms for all of Phase 1 construction would also be implemented. Earthwork would be performed for Phase 1A improvements to within 1 foot of the final grade. Construction of a 24±-foot wide temporary access roadway along the eastern and southern side of the subject property would be installed. The construction contractor will repave the construction access roadway as necessary throughout the entire construction process. The recharge basin with a concrete headwall, drywells, and drainage conveyance systems (within the southern half of the project site) would be installed from the Phase 1A site improvements to the proposed recharge basin. The proposed 12-foot wide RCA access driveway to the recharge basin would be constructed. Fencing would be installed around the recharge basin as well as landscape plantings and hydroseeding of lawn area surrounding the recharge basin.

Phase 1B – Scope of Work

The scope of work for Phase 1B of the proposed construction phasing plan would include partial clearing of the project site within the limits of disturbance as shown on the Construction Phasing Plan (see Sheet C-29) (i.e., approximately 12.64 acres). Erosion control measures would be installed and/or relocated from Phase 1A construction for the Phase 1B work (see Sheet C-29 in Appendix C of this DEIS). Underground utilities and temporary water main, gas and electrical loops for Buildings 1 through Buildings 4 would be installed. The drainage drywells, drainage inlets and drainage conveyance systems, within the footprint of Phase 1B, would be constructed and conveyed to the recharge basin to the south of the project site. A temporary 40±-foot wide paved access roadway would be constructed at the southern end of Phase 1B limits of disturbance. The proposed STP, sanitary sewer conveyance systems and grease trap for the proposed commissary would be constructed. Buildings 1 through Buildings 4 would be constructed with connection of roof drains to drainage conveyance systems. The parking stalls, loading docks, and retaining walls along with the loading dock drainage systems associated with these four (4) buildings would be constructed. Curbing, fencing, concrete sidewalks, and asphalt paving would be constructed with pavement striping laid for the area within all of Phase 1 of the proposed development. The entrance security gates and the project site area lighting surrounding Phase 1 would be installed. Landscape plantings and hydroseeding of lawn areas would be installed within and surrounding Phase 1 of the proposed development.

Phase 2 – Scope of Work

The scope of work for Phase 2 would include partial clearing of the project site within the limits of disturbance as shown on the Construction Phasing Plan (see Sheet C-29) (i.e., approximately 6.86 acres). Erosion control measures would be installed and/or relocated from Phase 1 construction for the Phase 2 work (i.e., temporary construction fence around Phase 2 construction, material stockpile areas for Phase 2 with locations to be determined by the construction contractor, temporary stabilized construction entrance for Phase 2 construction, temporary construction dumpster for Phase 2). Temporary construction trailers and bathrooms for Phase 2 construction would also be relocated. The proposed 24±-foot wide temporary construction access route from Phase 1 would be utilized to access Phase 2 of the proposed development. The 40±-foot wide temporary paved access roadway from Phase 1 construction would be removed for Phase 2 construction. Underground utilities would be installed and upon completion of the final water main, gas and electrical services are installed, the temporary water main, gas and electrical service loops for Building 1 through Building 4 (installed during Phase 1 of the

proposed development) would be removed. The drywells, drainage inlets and drainage piping for the center drive aisle of Phase 2 would be installed and conveyed to the recharge basin to the south of the project site. The sanitary sewer conveyance systems would be constructed for Phase 2 of the proposed development. Building 5 through Building 8 would be constructed with connection of roof drains to drainage conveyance systems. The parking stalls, loading docks, and retaining walls along with the loading dock drainage systems associated with these four (4) buildings would be constructed. Curbing, fencing, concrete sidewalks, and asphalt paving would be constructed with pavement striping laid for the area within all of Phase 2 of the proposed development. The site area lighting surrounding Phase 2 would be installed. Landscape plantings and hydroseeding of lawn areas would be installed within and surrounding Phase 2 of the proposed development.

During the construction of Phase 2, construction vehicles would be directed from the entrance of the project site to turn left and use the eastern most drive aisle to access Phase 2 of the proposed development. The construction contractor would limit the use of the paved drive aisles along the west side and center of the proposed development to only be used by those accessing the operational portion of the proposed development (i.e., Phase 1) while Phase 2 is being constructed.

3.5.2 Potential Impacts

Potential Impacts Associated with Land Disturbance

Based upon the proposed site plan, the whole project site would involve ground disturbance to some extent. During construction activities, there is the potential for erosion and sedimentation with prolonged soil exposure and fugitive dust during dry periods. To minimize the potential for erosion and sedimentation, a Soil Erosion and Sediment Control Plan (see Sheet C-30) and a SWPPP (see Appendices C and D, respectively, of this DEIS) have been prepared.

As shown on the Soil Erosion and Sediment Control Plan (see Sheet C-30 in Appendix C of this DEIS) and as part of the prepared SWPPP, all erosion and sedimentation controls would be installed prior to the commencement of work and would be inspected and maintained during construction. In accordance with §275-7 of the Town Code, the erosion and sedimentation controls and methods by which stormwater would be accommodated during construction have been designed to be consistent with the *New York Standards and Specifications for Erosion and Sediment Control, Blue Book* and the *New York State Stormwater Management Design Manual*. Water quantity and water quality controls (post-construction stormwater runoff controls) have also been included.

The proposed soil erosion and sedimentation control measures to be undertaken prior to and during construction and would include, at minimum, stockpile protection, minimizing the extent and duration of exposed areas, stabilizing exposed areas, inlet sediment control devices for storm structure protection, silt fencing, and a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles. Fugitive dust consists of soil particles that become airborne when disturbed by heavy equipment operation or through wind erosion of exposed soil after groundcover (e.g., lawn, pavement) is removed. All erosion and sediment control measures would be routinely inspected and maintained such that no sediment would be transported off-site. The aforementioned erosion and sedimentation controls would minimize the potential impacts associated with construction activities.

Soil & Materials Management Plan (SMMP)

As described in Section 2.1.2 of this DEIS, a SMMP has been prepared in accordance with 6 NYCRR Part 360 and 6 NYCRR Part 375, and includes a sampling plan to characterize soils, and detail procedures for the handling of soils during construction activities. Specifically, as indicated in the SMMP (see Appendix F of this DEIS), soil characterization would be performed to evaluate potential impacts related to the former agricultural usage of the subject property as well as the current and historical usage of the adjacent property to the west of the subject property (i.e., Sky Materials Site). Prior to construction, a total of 150 composite surface soil samples at a frequency of five shallow soil borings per acre would be installed and collected. In the event that impacted soils require offsite disposal, soils would be removed, and endpoint soil samples would be collected until surface soil concentrations of metals or chlorinated pesticides are below their respective SCOs.

Community Air Monitoring Plan (CAMP)

As described in Section 2.1.2 of this DEIS, a CAMP has been prepared for implementation, if necessary, during construction. Upon completion of the on-site soil characterization analysis during implementation of the SMMP, if impacted soils are identified, real-time air monitoring would be conducted within the project area and along the site perimeter, during intrusive activities (e.g., excavation and soil handling). VOC's and particulates would be monitored, and specific corrective measures would be undertaken should elevated concentrations be detected. Also, dust emissions would be controlled during construction (see Section 2.1.2 of this DEIS).

Overall, based on the above, no significant adverse impacts associated with land disturbance during construction would be expected.

Potential Construction-Related Stormwater Impacts

Regarding potential construction-related stormwater management impacts, a SWPPP report has been prepared for the proposed development. As noted above, in accordance with §275-7 of the Town Code, the erosion and sedimentation controls and methods by which stormwater would be accommodated during construction have been designed to be consistent with the *New York Standards and Specifications for Erosion and Sediment Control, Blue Book* and the *New York State Stormwater Management Design Manual*. As shown on the Construction Phasing Plan (see Sheet C-29 in Appendix C of this DEIS), the proposed recharge basin would be constructed during Phase 1A. Stormwater runoff during construction of the proposed development would be captured, diverted to the recharge basin and/or other pervious areas and would be retained on-site. Thus, no significant adverse impacts associated with stormwater generated during construction activities is expected.

Potential Construction-Related Traffic Impacts

As indicated in Section 1.2.2 and shown in Table 2 of this DEIS, approximately 1,555 CY of trees and shrubs would be cleared from the entire project site. It is noted that during construction, approximately 4,298 CY of topsoil would be reused within the Phase 1 and Phase 2 proposed landscaped areas. However, approximately 44,512 CY of topsoil would be removed from the project site. The project site would then be graded for the proposed development and would utilize construction equipment,

including but not limited to an excavator, backhoe, and bulldozer for earthwork. The overall grading program would result in an excess cut of approximately 6,279 CY of material. It is noted that the material cut in Phase 1 would be deposited and used for Phase 2, so removal of material would occur entirely during Phase 2.

Based upon an estimated load of 20 CY per construction vehicle, Phase 1A is projected to generate 30 trucks for removal of material associated with clearing and grubbing (i.e., 600 CY of trees and shrubs), 1,917 trucks associated with the removal of topsoil (38,340 CY), and approximately 10 construction equipment deliveries. This equates to approximately 10-15 trucks per day. Phase 1B is projected to generate 35 trucks for removal of material associated with clearing and grubbing (i.e., 699 CY of trees and shrubs), approximately 10 construction equipment deliveries, and 75-90 roll off dumpsters associated with debris removal. Construction traffic during Phase 1B of the proposed action would equate to approximately 1-2 trucks per week. It is noted that all material to be removed during Phase 1 of the proposed development (Phase 1A and Phase 1B) would be expected to occur over a period of approximately six months. Phase 2 is projected to generate 13 trucks for removal of material for clearing and grubbing (256 CY), 309 trucks for the removal of topsoil (6,172 CY), 314 trucks for exporting cut material (6,279 CY), approximately 10 construction equipment deliveries, and 62-75 roll off dumpsters associated with debris removal. This would equate to approximately 2 trucks per day. It is noted that all material to be removed during Phase 2 of the proposed development would be expected to occur over a period of approximately six months.

Overall, based on the above, traffic associated with construction of the proposed development would not have a significant adverse impact on the surrounding roadway network.

3.5.3 Proposed Mitigation

The proposed action has incorporated the following measures that effectively mitigate any potential adverse impacts:

- Erosion and sedimentation controls will be undertaken prior to and during construction and would include, at minimum, stockpile protection, minimizing the extent and duration of exposed areas, stabilizing exposed areas, inlet sediment control devices for storm structure protection, silt fencing, and a stabilized construction entrance to prevent off-site sediment tracking from construction vehicles. All erosion and sediment control measures will be routinely inspected and maintained such that no sediment would be transported off-site.

- The proposed SWPPP includes a detailed erosion and sediment control plan to manage stormwater generated on-site during construction activities, as well as post-construction stormwater management. Furthermore, the prepared SWPPP has been designed to ensure compliance with the water quality and water quantity requirements of the SPDES GP-0-20-001.

- Prior to construction, the proposed SMMP will address potential impacts from the past on-site agricultural practices and the adjacent Sky Materials Site such that soils and materials are properly categorized and handled in accordance with prevailing regulations.

- The proposed CAMP will be implemented, as needed, to protect on-site construction workers and the downwind community from potential airborne contaminant releases resulting from construction activities performed at the subject property.

3.6 Energy Resources

3.6.1 Existing Conditions

As the subject property is currently undeveloped, there is no energy consumption (i.e., natural gas and electricity) under existing conditions. The subject property does not contain any natural gas or electricity infrastructure. There is a six-inch gas main on Middle Country Road. North of the subject property along Middle Country Road, contains overhead utility wires.

3.6.2 Potential Impacts

Natural Gas

The proposed action would require a new gas connection to the existing gas main on Middle Country Road. Correspondence with estimated gas loads for the development was forwarded to National Grid on February 9, 2021, requesting availability for natural gas service (see Appendix O of this DEIS). As indicated in the correspondence letter, the estimated gas load for the proposed development is 955,000 British thermal units (BTUs) (see Appendix O of this DEIS). In correspondence dated April 5, 2021, National Grid confirmed availability of the projected load for both phases with the commitment valid only until February 24, 2023. Due to the timing of Phase 2 (i.e., 2025), the Applicant would coordinate with National Grid prior to construction of Phase 2 (see correspondence in Appendix O of this DEIS).

Electricity

The proposed development includes electrical supply from PSEG Long Island. Correspondence with projected electrical demand was forwarded to PSEG Long Island on May 20, 2020 and February 9, 2021, requesting availability of service (see Appendix O of this DEIS). The total calculated electric load for the proposed development is 4,573 kilo-volt-amperes (kVA) (2,394 kVA for Phase 1 of the proposed development and 2,179 kVA for Phase 2 of the proposed development) (see correspondence with projected loads in Appendix O of this DEIS). In correspondence dated, February 17, 2021, PSEG Long Island confirmed availability of service for the proposed action.

However, the proposed development has been designed to accommodate a 3.245 MW rooftop solar array capable of producing 2.4 MW of energy. As indicated in the SRE Project Summary (see Appendix Q), approximately 75 percent of the roof area of the proposed eight (8) buildings would be equipped with solar panels and the energy generated would be sold via Long Island's community solar program. As explained in the SRE project summary, "Community solar refers to local solar facilities where the public (Riverhead constituents) and/or the municipality becoming subscribers receiving credits resulting in a monetary discount on their electricity bills. Hence there is a Direct Community Benefit. The energy is still delivered through their regular electric provider as the power produced from the community solar array is fed directly back to the electric grid. As a result, the grid is supplied with clean, renewable energy,

while subscribers get credits on their electric bills." The project would produce approximately 4,100,000 kWh of renewable energy each year over a 20-year period, with 2.4 MW of output into the Community solar program. This is an annual equivalent of removing 625 passenger vehicles from the road or removing 490 homes entirely from the electrical grid. Since the panels would be installed on the rooftops, no usable land would be taken by the project.

Emergency Backup Power

The proposed action would include a backup generator associated with the STP, which would utilize diesel, and serve the STP in the case of a power failure. The diesel would be stored in an approximately 400-gallon, double-walled aboveground storage tank to be installed under the STP emergency generator.

Alternative Energy Sources

Geothermal Heating and Cooling

The proposed project would ultimately be multi-tenant leased space. As such, there is no benefit for the Applicant to invest in geothermal technologies as a means of heating, cooling, and air-conditioning (HVAC) the proposed development. A cost estimate was developed below to demonstrate the high construction cost of implementing geothermal technologies at the project site. It is noted that as geothermal is a locally emerging technology, there are no established industry standard for costs. As such, the cost estimate analysis provided below was conducted based on PWGC's experience with other geothermal systems in this area of Long Island:

- Interior square footage (approximately) = 424,000 SF
- HVAC load: 1 refrigeration ton required per 400 SF of interior space:

  $\frac{424{,}000 \text{ SF}}{400 \text{ SF per ton}}$ = 1,060±-ton HVAC load

- Quantity of closed loops required: 1 loop per 3 tons of HVAC load

  $\frac{1{,}060 \text{ HVAC load}}{3 \text{ tons per loop}}$ = 354± loops

- Assuming a vertical depth of 499± feet per loop = 176,646± vertical feet of drilling is required (354 loops x 499 feet per loop)

- Assuming an average drilling cost of $25/foot

- Total cost = **$4,416,150±**

As demonstrated above, the total cost of implementing a geothermal system for the proposed project is estimated to be approximately $4,416,150. This number excludes the cost of interior mechanical equipment that would be needed. As such, from a cost perspective, it is not feasible for the Applicant to pursue geothermal technologies as part of the proposed action. Furthermore, as indicated above,

National Grid and PSEG Long Island have confirmed adequate capacity to service the proposed development.

Other Energy Efficiency Measures

In addition to the proposed rooftop solar installation, the proposed buildings would be designed to meet or exceed the requirements of the New York State Building and Energy Code (NYS Code). As of May 2020, New York state adopted the 2020 International Codes which have increased the energy efficiency requirements. By following and complying the current requirements of this code, the proposed buildings would meet the minimum requirements for a LEED/Green certification. As provided by the project architect, the following measures would be implemented beyond what is required by the code in terms of energy efficiency:

- Increased insulation values for the building envelope to retain heated and cooled air.
- White roof membrane.
- High efficient ratings of the mechanical equipment.
- Low flow water fixtures to reduce water consumption.
- Natural daylighting.
- All buildings would be equipped with highspeed loading dock doors and seals.
- A select number of electric vehicle charging stations would be included in the parking areas.

Regarding lighting, all interior lighting would be LED with occupancy sensors and the proposed exterior lighting would be dark sky compliant.

3.6.3 Proposed Mitigation

Based on the assessment above and the energy conservation measures incorporated into the project design, the proposed action would not have a significant adverse impact on energy resources. The proposed action has incorporated the following measures that effectively mitigate any potential adverse impacts:

- Installation of rooftop solar panels for use by Long Island's community solar program. The energy generated by the solar panels is an annual equivalent of removing 625 passenger vehicles from the road or removing 490 homes entirely from the electrical grid. Furthermore, since the panels would be installed on the rooftops, no usable land would be taken by the project.

- In addition to solar, the proposed development would incorporate energy efficient measures including increased building insulations values, a white roof membrane, high efficient ratings of the mechanical equipment, low flow water fixtures, natural daylighting, highspeed loading dock doors and seals, and electric vehicle charging stations in the proposed parking areas.

4.0 OTHER REQUIRED SECTIONS

4.1 Unavoidable Adverse Impacts (Short-Term and Long-Term)

The short-term impacts would occur during the proposed construction activities; however, these impacts would be temporary and cease upon completion of the construction phase of the project. These impacts would include:

- Construction-related noise would be generated during demolition, site preparation, and construction of the proposed development. However, construction would be limited to the permitted hours set forth by the Town.
- Although erosion and sedimentation controls would be in place prior to and maintained during the entirety of the proposed construction, limited erosion may occur.
- There would be a temporary increase in construction-related traffic associated with material removal and deliveries.

Upon implementation of the proposed action, long-term adverse impacts would occur. These impacts would include:

- Proposed action would convert a former agricultural property to light industrial use.
- Stormwater generation would increase post-development due to the increase in impervious surface area. However, the proposed drainage plan would accommodate all stormwater on-site and designed for a nine-inch rain event.
- The proposed development would require water supply for potable and irrigation from the RWD (21,881± gpd), which may require the RWD to implement infrastructure improvements to accommodate the demand from this and other planned projects.
- The proposed action would remove 30.25± acres of the successional sandplain grasslands, successional southern hardwood forests, successional shrublands, and pitch pine-oak forests currently present at the site.
- There would be an increase in the number of vehicles and trucks on the surrounding roadways.

4.2 Irretrievable and Irreversible Commitment of Resources

For any development or new land use, there is a certain commitment of resources (natural and human or manmade) for consumption, conversion or made unavailable for further use as a result of the development and/or use. The construction and operation of the proposed development would require a commitment of natural and human resources, as follows:

- Building and construction-related materials would be committed to achieving the proposed development, including but not limited to wood, steel, concrete, and topsoil.
- The operation of construction equipment and post-development operations would require electricity, water resources and fossil fuels.
- Water demand would increase by approximately 21,881± gpd for the proposed development (potable and irrigation), thus requiring connection to the RWD or the installation of on-site wells (see Section 5.3 of this DEIS).

4.3 Growth-Inducing Aspects

Growth-inducing aspects can be generally described as long-term secondary effects of a development, which are either directly or indirectly related to the project. The direct growth-inducement aspects of a project would include the attraction of a significant increase in population to the area due to the creation of jobs, new institutions (e.g., universities, hospitals) or support facilities (e.g., major retail stores). Indirect growth-inducement aspects are those that increase the development potential of an area.

As the proposed development would include a new light industrial warehouse park, it is expected that there would be new businesses to lease space within the development as well as existing businesses seeking new space. As noted in Section 1.3.2 of this DEIS, approximately 50 to 60 construction jobs and 459 permanent jobs are expected to be generated.

It would be expected that a portion of the new employees already reside in the Town of Riverhead, whereas other employees may come from areas outside of the Town of Riverhead, but elect to relocate, thus resulting in new home sales or rentals within close proximity to the subject property.

It is important to note that the proposed development, with the resultant job creation and tax revenues, is consistent with the purpose of the Ind C zoning district, the Town Comprehensive Plan, as well as the Federal Opportunity Zone.

4.4 Cumulative Impacts

It is recognized that other pending projects in the vicinity of the project site could result in cumulative impacts. Cumulative impacts, as excerpted from the SEQR Handbook (page 80), are those impacts that occur "…when multiple actions affect the same resource(s). These impacts can occur when the incremental or increased impacts of an action, or actions, are added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from a single action or from two or more individually minor but collectively significant actions taking place over time. Cumulative impacts do not have to all be associated with one sponsor or applicant. They may include indirect or secondary impacts, long-term impacts, and synergistic effects."

As discussed in Section 3.2.2 of this DEIS, the Final Scope required the TIS to review five (5) other potential developments. However, for the DEIS, only three (3) other potential developments are required to be reviewed for cumulative impacts in coordination with the Town Planning Department (see correspondence in Appendix P of this DEIS). The three (3) other potential developments were identified as pending, approved or in review: Island Water Park, Proposed Tractor Supply Site, and Calverton Industrial Subdivision (Ostad Riverhead). Additionally, only traffic volumes for Island Water Park and Proposed Tractor Supply Site were able to be generated based on information available. It is anticipated the build out of the proposed action would precede the development of EPCAL and Calverton Industrial Subdivision.

The other potential developments are listed in Table 28 below and illustrated on Figure 24 in Appendix A of this DEIS.

Table 28 – Other Potential Developments

#	Project/Application Name	Project Type	Project Status (Approved, In Review, Advertised)	Project Build Year
1	Island Water Park Corporation - Island Water Park	Mixed-Use Recreation/ Entertainment	In Review	2023
2	NERP Holdings and Acquisitions Company, LLC – Proposed Tractor Supply Site	Retail	Approved	2023
3	Calverton Industrial Subdivision (Ostad Riverhead)	Industrial Subdivision	Pending	Pending

A description of the other potential developments follows.

1. Island Water Park - 5835 Middle Country Road, Calverton (2.5± miles west of subject property)

Information provided by the Town Planning Department included the Part 1 – Full Environmental Assessment Form (EAF) (undated) for a previously-approved site plan which, "Proposed creation of a water ski/wake board park at a site that was previously disturbed and excavated. Excavation of approximately 11 acres to create a groundwater feed lake. Installation of cable tow systems on towers (no powerboats) to tow water skiers/wake boarders. Construction of approximately 52,000 square foot buildings include offices, sport shop, fitness center, restaurants/snack bark/meeting rooms and warehouse/showroom. Recreational areas will also be provided to include but not limited to canoeing, kayaking, volleyball, picnicking, etc. Natural and Restored areas of approximately 25 acres, approximately 1.6 acres of landscaping will be provided, approximately 1.75 acres of paving walks and other impervious surfaces approximately 1.6 acres of pervious surfaces (gravel parking, wood chip trails, etc.) will be installed. Sanitary Systems in conformance with SCDHS regulations will be installed on site." The previous application has been amended to include 9,400± SF of indoor recreation/entertainment space, 3,000± SF health and fitness center, 232 seat restaurant/dining facility, and a 490,000 SF lake for recreation purposes (rope tow water skiing, kayaking, paddle boarding, etc.) on a previously disturbed property. According to the Town Planning Department, the application is currently under review by the Town Board.

2. Tractor Supply Site – 4331 Middle Country Road, Calverton (Adjacent to the west of the subject property)

Information provided by the Town Planning Department included the TIS completed by Atlantic Traffic and Design Engineers, Inc, and the site plan prepared by Bohler Engineering. This was a previously approved site plan, which permitted the construction of a 19,097± SF Tractor Supply retail store with associated 15,000± SF outdoor sales area and 17,450± SF of retail space on the same parcel. Both the Tractor Supply retail store and the outdoor sales area has been constructed. The construction of the additional retail space, which includes three (3) pad sites situated to the east of the Tractor Supply retail building, has been approved but has not been constructed yet.

3. Calverton Industrial Subdivision (Ostad Riverhead) – 3511 Middle Country Road, Calverton (1.27± miles east of subject property)

The Town Planning Department has received an application for a 135-acre industrial subdivision on two existing parcels, SCTM Nos. 600-117-2-11 and 13. These parcels have frontage on Middle Country Road and the Long Island Expressway and are zoned Industrial A. This zoning district permits a wide range of heavy industrial uses, detailed in Riverhead Town Code Article XXIII. A development program has not been provided. Accordingly, a cumulative assessment with the proposed action is not possible (see Appendix P of this DEIS).

Potential Cumulative Traffic Impacts

As described in Section 3.2.2 of this DEIS, in coordination with the Town and its consultants (see correspondence in Appendix P of this DEIS), the Final Scope required the TIS to review five (5) other potential developments: Island Water Park, Proposed Tractor Supply Site, Calverton Industrial Subdivision, EPCAL and consideration of the future safety enhancements to be made at the intersection of NYS Route 25 and Edwards Avenue.

In coordination with the Town of Riverhead Planning Department (see Appendix P of this DEIS), this DEIS assumes that the applications of the Island Water Park, Tractor Supply Site as well as the safety enhancements at NYS Route 25 and Edwards Avenue will occur prior to completion of Phase 1 of the proposed development (i.e., 2023). Accordingly, the growth rate in the TIS assumed the potential build-out of these projects to coincide with the completion of Phase 1 of the proposed action in 2023.

As a development application has not been submitted for EPCAL and it is expected that the proposed action would likely precede this development, EPCAL was not included in the growth rate for completion of Phase 1 in 2023 or Phase 2 in 2025, as described in Section 3.2.2 of this DEIS. Also, as no site plan has been proposed for the Calverton Industrial Subdivision, the blanket annual growth rate is assumed to include the potential build-out of this other planned development, as described in Section 3.2.2 of this DEIS.

As noted in Section 3.2.2 of this DEIS, Phase 1 of the proposed action is not anticipated to result in significant adverse impacts to transportation with these other potential developments considered.

Other Potential Cumulative Impacts

As explained earlier, cumulative impacts may occur for multiple actions that propose to affect the same resource. It is recognized that all developments propose to utilize public water from the RWD; however, the availability of water supply is being addressed by the RWD. Based on the information provided, it is assumed that approval of the aforementioned developments (i.e., Island Water Park and Tractor Supply retail build-out) were considered by the RWD during the approval process. Accordingly, the request for water availability and analyses contained herein are assumed to include both developments in the existing or baseline conditions by the RWD. Accordingly, no potential cumulative impacts on the water supply are expected.

The potential cumulative impact on groundwater resources is inherently protected in the various regulations and programs that exist for the protection of groundwater regionally. Accordingly, no potential cumulative impacts to groundwater would be expected.

Regarding the cumulative impacts on the visual corridor, implementation of the proposed action has been represented in the architectural renderings in Appendix M of this DEIS. As the Tractor Supply retail build-out would occur to the west of the subject property, the viewshed would be expected to slightly alter from the single Tractor Supply retail store, to an additional three (3) pad sites. The proposed development has been designed to comply with the required front yard and side yard setbacks and the building setbacks. The proposed development also provides extensive landscaping within the front yard and along the side yard perimeters to protect the viewshed of surrounding properties and along Middle Country Road. The proposed development would be subject to site plan review and approval before the proposed action can be implemented. Furthermore, as the three pad sites for the Tractor Supply site have been approved, it is assumed that the site plan has met the required setbacks and landscaping requirements to protect visual impacts to surrounding properties and along Middle Country Road. As such, no potential visual cumulative impacts would be expected.

Other resources evaluated herein, including ecological resources and energy resources, are all reviewed as part of the Town application and consultations with the utility providers.

5.0 ALTERNATIVES AND THEIR IMPACTS

Pursuant to §617.9(b)(5)(v) of the implementing regulations of SEQRA, a DEIS is to include a range of reasonable alternatives to the proposed action that are feasible, considering the objectives and capabilities of the project sponsor. The Final Scope dated November 19, 2020 requires the following alternatives to be evaluated:

- Alternative 1: No-Action/Existing Alternative
- Alternative 2: Maximum Build Out Plan with As-of-Right Uses
- Alternative 3: Proposed Development with Alternative Water Source
- Alternative 4: Completing Construction in a Single Phased Rather Then Phased Development
- Alternative 5: Proposed Development with On-site Septic System Rather Than On-site STP
- Alternative 6: Proposed Development with Alternate Drainage Design
- Alternative 7: Proposed Development with Cross Access Across Sky Materials Site

The following sections evaluate each of the aforementioned alternatives to the proposed action. The table below provides a comparative analysis of the project site and project-related details for the proposed action and all of the alternatives.

Table 29 – Comparative Analysis of Proposed Plan and Alternatives

	Alternative 1: No-Action/ Existing	**Proposed Site Plan**	**Alternative 2: Maximum Build Out Plan with As-of-Right Uses**	**Alternative 3: Proposed Development with Alternative Water Source**	**Alternative 4: Completing Construction in a Single Phase Rather Than Phased Development**	**Alternative 5: Proposed Development with On-site Septic System Rather Than On-site STP**	**Alternative 6: Proposed Development with Alternate Drainage Design**	**Alternative 7: Proposed Development with Cross Access Across Sky Materials Site**
Land Use	Undeveloped/ Vacant Land	Light Industrial – Warehouse, wholesale businesses, and indoor manufacturing	Light Industrial – Warehouse, wholesale businesses, commercial sports and recreation facilities, and indoor manufacturing	Light Industrial – Warehouse, wholesale businesses, and indoor manufacturing	Light Industrial – Warehouse, wholesale businesses, and indoor manufacturing	Light Industrial – Warehouse, wholesale businesses, and indoor manufacturing	Light Industrial – Warehouse, wholesale businesses, and indoor manufacturing	Light Industrial – Warehouse, wholesale businesses, and indoor manufacturing
Zoning	Ind C	Ind C	Ind C	Ind C	Ind C	Ind C	Ind C	Ind C
Total Landscaped Area	0± acres	7.79± acres	8.39± acres	Same as proposed action	Same as proposed action	7.62± acres	8.10± acres	Same as proposed action
Contiguous Landscape	30.25± acres (100%)	7.01± acres (23.19±%)	7.00± acres (23.13±%)	Same as proposed action	Same as proposed action	Same as proposed action	6.09± acres (20.13±%)	Same as proposed action
Total Impervious Area	0± acres (0 percent)	21.50± acres (71.07± percent*)	21.48± acres (70.98± percent*)	Same as proposed action	Same as proposed action	21.46± acres (70.97± percent*)	22.15± acres (73.22± percent*)	Same as proposed action
Total Pervious Paving	0± acres	0.96± acres	0.38± acres	Same as proposed action	Same as proposed action	1.16± acres	0± acres	Same as proposed action
Front Yard	-	124.7± feet	124.7± feet	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Side Yard	-	100± feet	66± feet	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Both Side Yards	-	221± feet	209.5± feet	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Rear Yard	-	195.2± feet	446.8± feet	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Building Coverage (without sewer)	-	31.31± percent	28.44± percent	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Building Height/Stories	-	29± feet	30± feet	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Site Utilization Data								
Parking Required / Provided	-	324 /326	630 / 631	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Loading Space Required / Provided	-	24 / 101	18 / 60	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Weekday AM Peak Hour Generation (cars/trucks)	-	164 trips total (144/20)	234 trips total (219/15)	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Weekday PM Peak Hour Generation (cars/trucks)	-	164 trips total (148/16)	380 trips total (359/21)	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Sat. Midday Peak Hour Generation (cars/trucks)	-	181 trips total (163/18)	359 trips total (335/24)	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Potable Water Usage (Actual/STP Design Flow)	-	16,506± gpd/20,000± gpd	17,569± gpd/28,842± gpd	Same as proposed action	Same as proposed action	16,506± gpd/no STP proposed	Same as proposed action	Same as proposed action
Irrigation	-	1,881± gpd	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action
Sanitary Generation	-	20,000± gpd	28,842± gpd	Same as proposed action	Same as proposed action	16,506± gpd	Same as proposed action	Same as proposed action
Sanitary Method	-	STP	Same as proposed action	Same as proposed action	Same as proposed action	I/A OWTS	Same as proposed action	Same as proposed action
Total N Leached at Design Flow (lbs./yr.) / N Concentration (mg/L) (BURBS Summary)	21.29/0.14	685.00/2.13	832.01/2.39	Same as proposed action	Same as proposed action	965.38/3.09	691.72/2.15	Same as proposed action
Solid Waste: Construction / Operations	-	825± tons / 24.7± tons per month	750± tons / 22.4± tons per month	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action	Same as proposed action

*Variance Required.

5.1 Alternative 1: No-Action Alternative

The No-Action Alternative involves leaving the project site as it currently remains, absent the proposed action and the continuation of the project site as undeveloped land. The No-Action Alternative would not result in any changes to traffic patterns, the current noise environment, community services, or utilities provided (e.g., water usage, sanitary discharge, and electrical usage). There would be no changes to the visual quality of the project site, or the character of the community. The projected job generation, increased tax revenue and economic benefits of the proposed development would not be realized. Moreover, the No-Action Alternative is not consistent with the intent of the Ind C zoning district or the economic development goals for the subject property, as evaluated in Section 3.1.2 of this DEIS. Finally, the No-Action Alternative does not achieve the objectives of the federal Opportunity Zone.

Overall, the subject property is a privately owned parcel situated within the Ind C zoning district of the Town of Riverhead and the objective of the Applicant is to develop the property in accordance with the prevailing zoning regulations. Accordingly, the No-Action Alternative does not achieve the objectives of the Applicant.

5.2 Alternative 2: Maximum Build Out Plan with As-of-Right Uses

The Alternative 2, Maximum Build Out Plan with As-of-Right Uses, includes a maximum build out scenario for the most intense uses of the land with respect to water demand, nitrogen loading, traffic and parking, that are permitted under the current zoning of the subject property. As indicated on the Alternate 2 Plan (Maximum Build Out Plan) in Appendix Q of this DEIS, the following uses and development program were considered:

- Warehouse/Manufacturing use: 224,969± SF
- Wholesale business: 48,704± SF
- Commercial sports and recreational facilities: 50,990± SF
- Indoor manufacturing: 48,704± SF

The Maximum Build Out Plan includes six (6) buildings and a STP sized to 20,000 gpd. Phase 1 would be the same as that proposed, four buildings with a total GFA of 224,969± SF and comprised of warehouse and indoor manufacturing space. Phase 2 would include a 50,990± SF building for use as a commercial sports and recreational facility, and the second building would be 97,408± SF and divided into two equal spaces: 48,704± SF for a wholesale business and 48,704± SF for indoor manufacturing (i.e., commercial bakery).

The Maximum Build Out Plan is similar to the proposed action but developed with uses that would generate a greater water demand, increased nitrogen loading, increased parking requirements, and increased traffic. As such, this alternative addresses only the relevant impact issues of water resources, traffic and parking. The potential impacts to soils, topography, ecological resources, land use and zoning, aesthetic resources, cultural resources, construction-related impacts, and energy resources would be similar to the proposed action.

Water Resources

Based on SCDHS design flow factors for General Industrial use (0.04 gpd/SF), the projected sanitary discharge from Phase 1 of Alternative 2 with 224,969± SF would be the same as the proposed action (9,059 gpd). Phase 2 includes uses that have higher water demands, as set forth below, thus increasing the total projected water use to 28,842± gpd.

Total STP Flow

Sanitary Density Flow

(Phase 1):

Proposed Commissary: 0.04 gpd/SF x 1,500 SF = 60 gpd
Building 1: 0.04 gpd/SF x 56,000 SF = 2,240 gpd
Building 2: 0.04 gpd/SF x 56,672 SF = 2,267 gpd
Building 3: 0.04 gpd/SF x 56,000 SF = 2,240 gpd
Building 4: 0.04 gpd/SF x 56,297 SF = 2,252 gpd

(Phase 2):

Fitness Center with Showers: 0.1 gpd/SF x 50,990 SF = 5,099 gpd
Retail: 0.03 gpd/SF x 48,704 SF = 1,462 gpd
Commercial Bakery: 0.04 gpd/SF x 48,704 SF = 1,949gpd

Kitchen/Gray Load Flow

Proposed Commissary Flow:	2.5 gpd/seat x 40 seats = 100 gpd
Fitness Center with Showers:	0.2 gpd/SF x 50,990 SF = 10,198 gpd
Commercial Bakery:	0.02 gpd/SF x 48,704 SF = 975 gpd
Total:	**28,842± gpd**

Based on the above, the Maximum Build Out Plan would require approximately 8,842± gpd of water more than the proposed action. The Maximum Build Out Plan would be expected to be served by the RWD, with the same conditions applied as the proposed action (i.e., an impact fee or tax levy may be imposed for the completion of the future planned infrastructure projects). As such, no significant adverse impacts would be expected.

Regarding total nitrogen loading, the Maximum Build Out Plan would have a greater total Nitrogen leached to groundwater than the proposed development due to the increase of wastewater flow and the 0.6 acre increase in landscaping (i.e., 7.79± acres of landscaping for the proposed development and 8.39± acres of landscaping for Alternative 2). As indicated in the BURBS analysis (see Appendix G of this DEIS), the total Nitrogen from the Maximum Build Out Plan is approximately 832.01 lbs./year, which is 147.01 lbs./year higher than the proposed action. Also, the concentration of nitrogen leached under this alternative is 2.39 mg/L, as compared to 2.13 mg/L for the proposed action (which is 0.26 mg/L less). Therefore, based on the BURBS analysis, this alternative plan would have a greater impact on groundwater quality than the proposed action. However, the concentration of nitrogen leached under this alternative is still below the 4 mg/L recommended in the *208 Study.* As such, no significant adverse impacts would be expected.

Regarding stormwater management, the drainage plan would be similar to that which is proposed (i.e., drywells, one recharge basin, catch basins, pervious pavers). As such, there would be no significant adverse impacts associated with stormwater or drainage expected from this alternative plan.

Traffic and Parking

As evaluated in the TIS and summarized in Table 29, the maximum build-out alternative includes 631 parking stalls (i.e., an increase of 305 as compared to the proposed action), 60 loading docks (i.e., a decrease of 40 as

compared to the proposed action), and greater traffic volumes with 234 trips in the AM Peak, 380 trips in the PM Peak, and 359 trips in the Saturday Mid-day Peak.

As indicated in the TIS (see Appendix L of this DEIS), the total site-generated traffic volumes (i.e., truck volumes and passenger vehicle volumes) for Alternative 2 were analyzed in the TIS based on the three site access conditions for the proposed development (i.e., Conditions A, B and C). It is noted that the site access conditions for Alternative 2, while the same as the proposed development, are referred to as Conditions D, E and F, respectively in the TIS. Based on the analysis conducted in the TIS, the traffic volumes associated with Alternative 2 for all three site access conditions would be similar to Phase 2 of the proposed action and would not have a significant adverse impact to the surrounding roadway network.

5.3 Alternative 3: Proposed Development with Alternative Water Source

The Alternative 3, Proposed Development with Alternative Water Source, includes the installation of on-site supply wells to serve the water demands of the proposed development. Specifically, based on the proposed development program, this alternative includes a 130 GPM supply well for potable and irrigation water, a 375 GPM fire suppression supply well for the buildings, and a 1,500 GPM hydrant supply well. This alternative was evaluated in the Water Supply Source Report and the potential impacts on surrounding wells, surface water bodies, and nearby contamination were also modeled in a Groundwater Modeling report. Both the Water Supply Source Report and Groundwater Modeling report are included in Appendix H of this DEIS.

As this alternative includes the same development program as the proposed action, this alternative addresses only the relevant impact issues of groundwater quality and quantity. The potential impacts to soils, topography, ecological resources, land use and zoning, aesthetic resources, cultural resources, construction-related impacts and energy resources would be the same as the proposed action.

Water Resources

The potable water and irrigation demand for this Alternative would be the same as the proposed action (i.e., 20,000± gpd and 1,881± gpd, respectively). As such, the combined potable water and irrigation demand is the same as the proposed action (i.e., 21,881± gpd). However, this alternative includes the installation of on-site supply wells to serve the proposed demand rather an extension and servicing by the RWD.

Regulatory Requirements

Relevant to this alternative is the SCDHS SCSC (Article 4 and 6), and the New York State Department of Health (NYSDOH) requirements for private water supply. Pursuant to Section 760-611.C of Article 6, Individual Water Supply Systems may be approved by the SCDHS as the method of water supply provided all of the following conditions are met:

> 1. *the Population Density Equivalent of the Other Construction Project is equal to or less than that of a Realty Subdivision or Development of Single-Family Residences in which all parcels consist of an area of at least 40,000 square feet, and all parcels in the Other Construction Project consist of an area of at least 20,000 square feet each. Parcels that have a Population Density Equivalent that is greater than that of a Realty Subdivision or Development of Single-Family Residences in which all parcels consist of an area less than 40,000 square feet may be permitted to use an Individual Water Supply System if the Other*

Construction Project has an exemption pursuant to Section 760-612 of this Article and meets the conditions of paragraphs C.2. and C.3. of this Section; and

2. *the Other Construction Project, or any portion thereof, is not located within an existing water district or water service area and is not reasonably accessible thereto, and individual wells can provide sufficient yield of fresh, potable water meeting Department requirements and standards; and*

3. *the Individual Water Supply Systems comply with the Department's current standards and the minimum requirements of the New York State Sanitary Code.*

Pursuant to the SCDHS "Private Water System Standards" in Article 4 (§406.4-10), ""No person may construct a private water system to serve new construction without first having applied for and received an approval from the department. An approval to construct will be granted only where the department has made a determination that no public water supply is available (see §406.4-11 ACCESS TO PUBLIC WATER)." Further, pursuant to §406.4-11, the following is required:

"All applications to install or use a private water system must include evidence satisfactory to the department that a community waster system is not available. Connection to a community water system is required if the system has sufficient capacity to serve the applicant, and if any of the following apply…

- Commercial or industrial buildings where water mains exist within 500 feet of the applicant's property line. For proposed structures larger than 5,000 gross square feet, connection is required within a distance equivalent to the proposed gross square footage divided by ten, e.g., within 600 feet of a proposed 6,000 square foot building.

- Commercial or industrial subdivision or development where water mains exist within a distance equivalent to the maximum buildable square footage allowed divided by ten, when measured to the closest property line.

If connection to a community water system becomes feasible (due to water main extensions or improved system capacity) prior to or during construction of a project previously approved by the department for a private water system, then the approval for the private water system is voided, and the applicant must file a revised plan with the department."

The NYSDOH also regulates private water supply systems under Part 5, Subpart 5-1 Public Water Systems.

Well Specifications

As noted above and evaluated in the Water Supply Source Report (Appendix H of this DEIS), this Alternative includes three (3) supply wells for potable demand, fire suppression, and hydrant water. Each well would serve to supply water to each application individually. A description of the wells follows.

- The potable supply well is estimated to be a 130 GPM well that provides water for both potable and irrigation purposes. The well would be located on the northeast side of the project site, adjacent to the site exit.

- The fire suppression supply well would be a 375 GPM well that provides water for building fire suppression purposes. The well would be located on the northeast side of the subject property, adjacent to the site exit.

- The hydrant supply well would be a 1,500 GPM well that provides water for the fire hydrants located on-site. The well would be located on the northwest corner of the subject property.

For each well, the submersible well pumps would discharge from piping located in a subgrade well vault located in the vicinity of the proposed wells. The water would be conveyed through high-density polyethylene (HDPE) pipe into the associated distribution system. All piping and associated valves would be located in a below-ground vault.

For the potable water supply well, it assumes a pumping rate of 78,000 GPD (assumes continuous pumping of 130 GPM for 10 hours) for 286 days, with the duration of pumping lasting for a maximum of 10 hours per day, 5.5 days per week. For the fire suppression supply well, it assumes a pumping rate of 45,000 GPD (assumes continuous pumping of 375 GPM for 2 hours) for 12 days, with the duration of pumping lasting for a maximum of 2 hours per day, 1 day per month. For the hydrant supply well, it assumes a pumping rate of 180,000 GPD (assumes continuous pumping of 1,500 GPM for 2 hour) for 12 days, with the duration of pumping lasting for a maximum of 2 hours per day, 1 day per month. These conditions are in excess of what is actually anticipated to occur at the project site (i.e. during a typical day, the potable water supply well pumping rate will not be sustained at 130 GPM for 10 hours straight, as the 130 GPM represents the peak flow rate anticipated).

As indicated on the Alternate 3 Plan (Water Source Plan) (see Appendix Q of this DEIS), the wells have been placed in accordance with the separation requirements set forth in the NYSDOH Part 5, Subpart 5-1 Public Water Systems. The three wells would be screened below the Clay at Manorville layer in the Magothy Aquifer. Based on published information, the top of the clay layer is approximately 91 feet bgs and the layer is estimated to be 33± feet thick. Accordingly, the wells would be placed at various depths (see Table 8 of the Water Supply Source Study in Appendix H of this DEIS). The Clay at Manorville layer would act as an aquitard to slow shallow groundwater contamination from the adjacent NWIRP/EPCAL site from entering into the proposed supply wells, which has been modeled in Groundwater Modeling report in Appendix H of this DEIS and is summarized below.

Impacts to Surrounding Wells

The Water Supply Source Study analyzed the impacts of utilizing the three (3) wells on surrounding private and public wells using the Cooper-Jacob methodology. As indicated in the Water Supply Source Study, the Cooper-Jacob method is a 2-D numerical model that is a simplification of the Theis method which accounts for unsteady drawdown around a pumping well. Based on the Cooper-Jacob method, if the pumping rate is constant, then drawdown can be used to determine the radial distance or radius of the zone of influence of the well.

In the immediate vicinity of the proposed wells, there would be a rapid drop of the water table due to the drawdown of each well. This area of drawdown would cause a cone of depression surrounding the well and would have a specific zone of influence to the area surrounding the well, which is the area (or radius) that is impacted due to the pumping of the well. As the well reaches steady-state pumping, the rate of drawdown would decrease and eventually stabilize. At a certain distance from the well, the drawdown would become

negligible, as it would reach the existing water table elevation. Table 9 in the Water Supply Source Study illustrates the radius of the zone of influence for each well at different level drawdowns (i.e., 0 feet, 0.1 feet, 0.5 feet, 1 foot, 5 feet and 10 feet). As depicted in Table 9 of the Water Supply Source Study, the wells would not have a drastic influence on the surrounding water table. The influences that would occur would be in the Magothy Aquifer and would be below the Clay at Manorville layer.

Pursuant to available information on private wells and well logs, all of the surrounding wells within the vicinity of the subject property are screened in the Upper Glacial Aquifer, with the exception of three (3) wells that are screened in the Magothy Aquifer. The wells that are screened in the Upper Glacial Aquifer in the vicinity of the subject property would not be influenced by the proposed wells. The wells that are screened in the Magothy aquifer are outside the maximum radius of the zone of influence (125 feet for the potable water well) and, therefore, would not be influenced by the proposed wells. Pursuant to data provided by the RWD, the properties directly to the east and north of the project site are not connected to the public water supply and it is, therefore, assumed that these lots have private supply wells. Neither the location nor well data (depth, yield, etc.) were provided by the NYSDEC in response to the FOIL request. However, the property to the east is beyond the radius of the zone of influence (125 feet) and would not be impacted. Regarding the property to the north, if the well on that site is located directly across from the proposed wells, that well may experience a drawdown of 0.2 feet when the proposed well is pumping at 130 GPM. However, when the pumping rate is reduced during non-peak demand times or when the well is off (such as at night when the buildings are not occupied), there would be no impact on the northern property well.

Impacts on Water Levels, Surface Waters and Nearby Contamination

Numerical 3-D groundwater modeling was performed to evaluate the potential effects of three groundwater supply wells (see Groundwater Modeling Report in Appendix H of this DEIS). Steady state modeling conditions were utilized to simulate the long-term effects of the daily operation of the potable supply well, while transient modeling scenarios were employed to analyze the short-term effects of the fire protection and hydrant wells.

The proposed potable supply well was found to have relatively minor effects on local water levels with respect to drawdown. The capture zone of the well was found to extend back to the water table and originated beneath the NWIRP site, an area known to be contaminated with PFOA and PFOS. Based on particle tracking and travel time analysis, the possibility exists that the PFOA/PFOS contamination may either be beneath the subject property presently or is well on its way there. Prior to implementation of this alternative, should water supply not be available by RWD, a test well and groundwater profiling would be performed, and a detailed fate and transport model would be developed if a source and/or plume are present and can be delineated. This would assist in predicting if and when the project site might experience an issue with PFOA/PFOS contamination and could also help direct treatment options like the installation of granular activated carbon (GAC) filters. Hydraulically, the proposed potable supply well is predicted to have minimal effects on the local aquifer system. From a potential contamination standpoint, the well is proposed to be located downgradient of a known contaminated area (adjacent NWIRP/EPCAL site) and could be impacted in time. Based on concentrations, treatment may be necessary to supply potable water.

The transient modeling performed to evaluate the impacts of both the fire protection well and hydrant well demonstrated both wells have fairly significant localized hydraulic effects while pumping (i.e., large drawdowns at and around the wells). However, the effects are very short term and recovery happens quickly once pumping ends. Pumping of these wells could, however, further exacerbate drawing potential

contamination from the NWIRP/EPCAL site towards the potable supply well, but again the limited, infrequent use of these wells will aide in minimizing that effect. As they are non-potable wells, treatment would not be required.

5.4 Alternative 4: Completing Construction in a Single Phase Rather Than Phased Development

This alternative includes the construction of the proposed development in one-phase rather the proposed two-phase construction plan with Phase 1 completed in 2023 and Phase 2 completed in 2025. However, according to the project sponsor, a single-phase construction would not be possible due to the terms applied by the lender for the construction loan. Specifically, the construction loan would be phased, where financing for Phase 2 would be released only after Phase 1 is complete and tenants are secured. Pursuant to §617.9(b)(5)(v) of the implementing regulations of SEQRA, a DEIS is to include "…a description and evaluation of the range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor." As a single-phased project is not feasible for the project sponsor, this alternative is not being evaluated.

5.5 Alternative 5: Proposed Development with On-site Septic System Rather Than On-site STP

Alternative 5, Proposed Development with On-site Septic System Rather Than On-site STP, includes the same development program as the proposed action, but would use an on-site septic system instead of an STP for the collection and discharge of sanitary wastewater from the proposed action. It is noted that the initial application filed with the Town included this same scope, but was modified during the scoping period due to the SCDHS Appendix A changes, which permits on-site STPs to accommodate up to 30,000 gpd at reduced setbacks of 10 feet to commercial buildings and commercial property lines. As compared to the proposed action, this alternative would include the projected volume of sanitary waste (16,506± gpd) to be handled with I/A OWTS and would require the purchase of TDRs to achieve the required density.

As this alternative includes only an alternate method of sanitary disposal for the proposed development program, the impacts on soils and topography, ecological resources, land use and zoning, transportation, aesthetic resources, historic and archaeological resources, construction and energy resources would be the same as the proposed action and evaluated in this DEIS. Accordingly, only the impacts on groundwater resources are relevant and evaluated below.

Water Resources

As noted in Section 2.2.1 of this DEIS, as the subject property is located in Groundwater Management Zone III, the maximum permitted sanitary discharge for the use of on-site sanitary systems is 300 gpd per acre or approximately 9,076 gpd for the 30.25±-acre project site. Based on SCDHS design flow factors for General Industrial use (0.04 gpd/SF), the projected sanitary discharge from Phase 1 would be 9,059± gpd and from Phase 2 would be 7,843± gpd. Accordingly, Phase 1 would fully comply with Article 6 of the SCSC but in order to proceed with Phase 2, the Applicant would be required to purchase available sanitary credits under the Article 6 TDR program. Based on the proposed density, Phase 2 would require 26.1 credits (7,843 gpd over the permitted sanitary density / 300 gpd per credit) and would proceed only after such credits are obtained.

For this alternative, it would be expected that the TDR would be achieved through transfer from a property within Zone III and the Town of Riverhead, subject to application and approval of the SCDHS as part of the

Article 6 approval for Phase 2. As this alternative would comply with the Suffolk County Article 6 TDR standards for permitting, no significant adverse impacts to groundwater quality from the overall proposed density for Alternative 5 are expected. However, as evaluated in the BURBS analysis (see Appendix G of this DEIS), the proposed development with the use of I/A OWTS would have a total nitrogen leached of 961.88 lbs./year, which is 276.88 lbs./year higher than the proposed action. Also, the concentration of nitrogen leached under this alternative is 3.09 mg/L, as compared to 2.13 mg/L for the proposed action (which is 0.96 mg/L less). Therefore, based on the BURBS analysis, this alternative plan would have a greater impact on groundwater quality than the proposed action. However, the concentration of nitrogen leached under this alternative is still below the 4 mg/L recommended in the *208 Study.* As such, no significant adverse impacts would be expected.

The potable water demand for this alternative would be less than under the proposed action as the STP at 20,000 gpd would not be constructed. However, it is noted that this alternative would not provide for flexibility with future tenant needs which are not known at this time. Irrigation demand would be the same as the proposed action as the area of lawn and landscaping would be the same (i.e., 2 acres). As the proposed action assumes a connection to RWD, this alternative with less water demand, is assumed to also be connected to the RWD with the same conditions applied (i.e., an impact fee or tax levy may be imposed for the completion of the future planned infrastructure projects). As such, no significant adverse impacts would be expected.

5.6 Alternative 6: Proposed Development with Alternate Drainage Design

Alternative 6, Proposed Development with Alternate Drainage Design, has been prepared to eliminate publicly accessible views of the recharge basin from Middle Country Road and from the EPCAL walking trail. As noted in Section 1.1.1 of this DEIS, the site plan for the proposed action has been modified to relocate the proposed recharge basins from the northern portion of the project site (adjacent to Middle Country Road) to a single recharge basin in the southern portion of the project site. As such, the site plan for the proposed action responds partially to the purpose of this alternative (i.e., elimination of recharge basins from the road). As shown on Alternate 6 (Drainage System Plan) in Appendix Q of this DEIS, this alternative includes a similar drainage design as the proposed action but the recharge basin at the south of the subject property has been removed and relocated to the western portion of the project site in between Building 1 and Building 3, thus removing publicly accessible views of the recharge basin from the EPCAL walking trail.

This alternative includes a total of four (4) buildings as opposed to the eight (8) proposed buildings to accommodate the recharge basin on the west side. However, the percent of building coverage footprint remains the same as the proposed development (i.e., 31.31 percent).

As this alternative includes only an alternate drainage design for the proposed development, the impacts on soils and topography, ecological resources, transportation, historic and archaeological resources, construction and energy resources would be the same as the proposed action and evaluated in this DEIS. Accordingly, only the impacts on water resources, land use and zoning, and aesthetic resources are relevant and evaluated below.

Water Resources

This alternative includes the construction of a STP in the same location as the proposed action and would be oversized to accommodate 20,000± gpd of wastewater to account for the potential for future tenant needs. The potable water and irrigation demands would be the same as the proposed action (i.e., 20,000± gpd and 1,881± gpd respectively). This alternative would include a connection to the RWD with the same conditions applied

as the proposed action (i.e., an impact fee or tax levy may be imposed for the completion of the future planned infrastructure projects). As such, no significant adverse impacts would be expected.

As indicated in the BURBS analysis (see Appendix G of this DEIS) and summarized in Table 29 of this DEIS, the total nitrogen is calculated at 691.72 lbs./year, which is 6.72 lbs./year higher than the proposed action. Also, the concentration of nitrogen leached under this alternative is 2.15 mg/L, as compared to 2.13 mg/L for the proposed action (which is 0.02 mg/L less). As such, no significant adverse impacts would be expected.

Regarding stormwater management, the Alternative 6 plan would be developed with a drainage system similar to that which is proposed (i.e., a recharge basin, drywells, catch basins, and the various lawn areas for infiltration), however the drainage system for Alternative 6 would not include pervious pavers. The proposed recharge basin would also be placed on the western portion of the subject property, different from the proposed action. All stormwater would be accommodated and recharged on-site in accordance with Town Code. Also, during construction, proper erosion and sedimentation controls in accordance with Town Code as well as NYSDEC regulations would be implemented. As such, there would be no significant adverse impacts associated with stormwater or drainage expected from Alternative 6, Proposed Development with Alternate Drainage Design.

Land Use and Zoning

Similar to the proposed action, Alternative 6, Proposed Development with Alternate Drainage Design, converts the subject property from a vacant parcel of land to an industrial use. This alternative introduces the same light industrial uses as the proposed action, and would comply with the bulk and dimensional requirements of the Ind C district, as summarized in Table 29, with exception to the impervious lot coverage which exceeds the maximum 60 percent. Of notable difference is the four large buildings, as opposed to the eight smaller buildings, which does not allow for preferred campus layout.

As the building program for Alternative 6 is the same as the proposed action, the impacts to land would be similar to the proposed action. Alternative 6 has the same layout of the proposed buildings with the same percentage of building coverage (i.e., 31.31± percent). However, this alternative has slightly different site coverages: 2.15± percent more impervious coverage (i.e., from 71.07± percent for the proposed action to 73.22± percent), 0.31± acre less of overall landscaping coverage (i.e., from 7.79± acres for the proposed action to 8.10± acres) and 0.96± acre less of pervious paving (i.e., from 0.96± acre for the proposed action to 0± acres). As these changes in site coverage are nominal when compared to the proposed action, the impact analyses with respect to compliance with the prevailing zoning district and area variance consistency analysis, and consistency with the relevant plans, are the same as the proposed action. The proposed land uses for this alternative, which is the same as the proposed development, are in accordance with the Proposed Land Use Plan included in the Town Comprehensive Plan.

Aesthetic Resources

Under this alternative, there would be no recharge basins visible in the north or south. Similar to the proposed action, the industrial buildings would be set back from the roadway to maintain the existing viewshed of open space and spread out land uses along Middle Country Road; however, the mass of the four larger buildings may result in adverse impacts. It is noted that views of the recharge basin in the south, as proposed, would be largely

obscured with vegetation. As such, the design change for the elimination of a recharge basin from the walking trail is not preferred.

5.7 Alternative 7: Proposed Development with Cross Access Across Sky Materials Site

This alternative includes a cross-access agreement with the property owner to the west for entry to the subject property from the intersection of Fresh Pond Avenue, at Middle Country Road. It is noted that the overall layout of this alternative would be similar the proposed action; however, the internal traffic circulation would differ with site access from the west, rather than Middle Country Road.

Consultations were undertaken by the Applicant with Calverton Industries, LLC (owners of the adjacent Sky Materials Site) as well as New England Retail Properties, Inc (owners of Tractor Supply). In correspondence dated March 9, 2021, Calverton Industries, LLC advised that a cross-access would be "detrimental" to future plans and could not accommodate the request (see Appendix Q of this DEIS). A formal response from New England Retail Properties, Inc. is pending; however, verbal discussions suggest there is no interest due to the future pad build-out. Accordingly, this alternative plan does not appear feasible for the applicant.

As indicated in Section 3.2.2 of this DEIS, this alternative is represented by Conditions A and D in the TIS. This alternative not only requires consent from the adjacent property owners for cross-access but requires site access to be provided via a signalized access point at the intersection of Middle Country Road and Fresh Pond Avenue as well as an unsignalized access point along the site's Middle Country Road frontage. Condition A considers widening Middle Country Road to provide a westbound left-turn lane at the westbound approach to the traffic signal at Fresh Pond Avenue and a two-way left-turn lane extending between the aforementioned left-turn lane and the eastern extent of the subject property's Middle Country Road frontage.

The number of trips generated for Phase 1 of the cross-access alternative would be the same as Phase 1 of the proposed action. The LOS/capacity analysis for 2023 Phase 1A Build and 2025 Phase 2A No-Build conditions for the cross-access alternative determined the intersections operated in a manner generally consistent with the 2023 Phase 1 No-Build Condition and no additional operational deficits would be observed. Under the 2025 Build Condition and 2025 Maximum Build-Out Condition (Alternative 2 discussed above), the LOS/capacity analysis for the cross-access alternative determined the intersections operated in a manner generally consistent with the 2025 Phase2A No-Build conditions. The same mitigation measure implemented for Phase 2 Build Mitigation would be assumed under this alternative as well.

Overall, this alternative would not result in significant adverse impacts to transportation. However, implementation of this alternative is contingent upon approval from the landowners, which has been denied from Calverton Industries, LLC. and a lack of response from New England Retail Properties, Inc. appears to suggest that there is no interest. As such, this alternative cannot be implemented.

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