DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

Breezy Hill Group VI, LLC
Asphalt and Concrete Crushing and Screening Facility
Site Plan Application
1792 Middle Road
Calverton, New York

NPV No.17060

Prepared for Submission To:
Town of Riverhead, Town Planning Board
c/o Town Planning Department
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Riverhead, New York 11901
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December 2020
Revised August 2021

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BREEZY HILL GROUP VI, LLC

Asphalt and Concrete Crushing and Screening Facility

Site Plan Application

1792 Middle Road
SCTM: 600-100-2-4.2
Hamlet of Calverton, Town of Riverhead
Suffolk County, New York

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Date of Acceptance by Lead Agency: September 2, 2021

Comments to the Lead Agency are to be submitted by: November 18, 2021

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SUMMARY

SUMMARY

Introduction

This document is a Draft Environmental Impact Statement (DEIS) for an industrial project known as **Breezy Hill Group, LLC, Asphalt and Concrete Crushing and Screening Facility** (hereafter, the *"proposed project"*). The site of this proposal is 6.68 acres in size and is located at 1792 Middle Road in the hamlet of Calverton Town of Riverhead (hereafter, *"the project site"* or *"the subject site"*). The site is composed of one tax lot, designated as District 0600; Section 100; Block 2; Lot 4.2. The subject property is located in the Town's Industrial A zoning district. While the proposed industrial use is not specifically allowed as-of-right or by special permit in the Industrial A district, the Town Zoning Board of Appeals (ZBA) has determined that it is also not specifically prohibited in this district, and so no variance is necessary or proposed.

Description of the Proposed Action

The proposed project is an asphalt and concrete crushing and screening facility on a 6.68-acre industrially-zoned property that currently is developed with a single-family residence and associated accessory structures. The proposed facility will operate one crushing/screening equipment station, and there will be a total of four material stockpiles. The project requires site plan approval from the Town Planning Board, the application for which was submitted in approximately January 2018. No variances are required for the proposed project.

The residence is a one-to-two story frame/stucco building that will be converted to an office use for the facility, and the one-and-a half-story frame barn/garage that will be removed. The in-ground swimming pool/brick patio and tennis court area will also be removed. A small (0.01 acre) unmapped man-made pond will be filled.

To reduce visual and noise impacts on passing motorists and neighboring residents to the east, landscape mitigation buffers (as well as fencing, and a berm to the north) along the property's northeastern, northern, and western boundaries will be provided. With respect to potential impacts to the southeast and south, substantial amounts of existing natural vegetation within the site will be retained

The project will retain the driveways in their current locations on Middle Road and Manor Road, but will expand and improve each; the access on Middle Road will be configured to serve the office area, and the Manor Road access will be the access for trucks. Both of these driveways will be "stop"-controlled for departing vehicles. The internal "loop" roadway circling the processing area and parking areas will be covered with RCA, to minimize runoff and enhance stormwater recharge in-place.

The site's drainage system will include subsurface leaching pools strategically placed at low points to intercept stormwater. The site is divided into three (3) Drainage Areas including the northern process/storage area (DA-A), the south natural and paved areas for office access (DA-B), and the office and immediate office parking area (DA-C). The process/storage area slopes from north to south. Drainage will be provided at the downslope area laterally from east to west along the interior RCA roadway. Two (2) strategically placed catch basins will overflow to twelve (12) solid cover subsurface leaching pools. Part of this system includes four (4) inter-connected open grate leaching pools that will receive water from the drainage area via surface infiltration as well as overflow from the solid cover pools. The drainage system for this area is sized to provide the required storage for DA-A and there is an overflow outlet to a closed natural contour area on the property for additional drainage reserve. The south part of the property provides drainage for the paved driveway area using a catch basin and four (4) solid cover subsurface leaching pools, sized at an appropriate capacity for DA-B. The office area includes a catch basin and one (1) solid cover leaching pool, sized at an appropriate capacity for DA-C. The total capacity of the proposed drainage system is 31,783± CF. Thus, the project's drainage system will have a capacity that is 4.34% in excess of the minimum required system capacity, and will therefor conform to Town requirements.

Anticipated Impacts

The Town of Riverhead Planning Board issued a Positive Declaration based on the following concerns and potential environmental impacts:

1. Potential impacts to groundwater and local water resources.
2. Noise pollution.
3. Dust impacts.
4. Traffic impacts.
5. Roadway and infrastructure.
6. Removal of agricultural soils.
7. Stormwater management and drainage.
8. Removal of existing vegetation.
9. Loss of required screening and buffers with residential properties.
10. Compatibility with the Town's Master Plan.

The following issues of concern were specified in more detail in the Positive Declaration:

1. The use poses potential threats to the groundwater supply in an area where public water infrastructure is not currently available and whose water usage for uses in the surrounding [area] is provided via wells fed directly from groundwater.
2. The use has the potential [to] increase heavy industrial traffic along roadways within an area containing residential, rural and industrial uses.
3. The use has the potential to degrade existing roadway and infrastructure as a result of increased heavy industrial traffic.

4. The use has the potential to increase noise levels and present impacts to neighboring residential [use].
5. As a result of illegal land clearing by the applicant, the use has the potential to create significant adverse visual impacts to neighboring residential properties;

Proposed Mitigation

Surface and Subsurface Soils

- The **Grading & Drainage Plan** presents the overall site grading program and the drainage system proposed; the project will require Town Division of Planning review and Planning Board approval prior to implementation.
- Soils will be retained on-site to the maximum extent practicable. Soil from areas that are excavated such as the yard grading area and for subsurface leaching pool installation will be used to backfill the pool/patio area and man-made pond, and will be generally incorporated back into the site to provide suitable grades and topsoil in areas to be landscaped. Some off-site soil removal is necessary to achieve the grading plan.
- Erosion at the site and sedimentation at downslope locations may occur during the construction phase of the project. These potential impacts will be overcome by implementing erosion control measures and installing proper drainage facilities discussed in the SWPPP, to be prepared for the project.
- Dust control measures will be available on-site, including monitoring for dust conditions and use of a water truck to spray/wet excessively dry soils prone to wind transport.
- If clean quality agricultural topsoil must be removed from the site, efforts will be made to have it reused as a growing medium, topsoil, or other productive use elsewhere.

Surface Water and Groundwater

- As no adverse impacts to groundwater quality or quantity are anticipated to occur because of the project, no additional mitigation measures beyond the operational procedures planned for the project or inherent to its design are necessary or proposed.
- The proposed project will adhere to the terms and mitigation measures specified in the SWPPP (if required), ensuring that the project minimizes the potential to impact adjacent sites from uncontrolled runoff.
- The proposed project conforms to all applicable recommendations of the SGPA Plan as practicable. Thus, no additional mitigation measures beyond the operational procedures planned for the project or inherent to its design are necessary or proposed.

Ecology

- Retain existing natural wooded areas in southeast and southwest parts of the site.
- Establish perimeter landscaping as a mitigation measure for visual screening and added habitat. Any vegetation to be planted will be adapted to ensure survival and reduce or eliminate the need for watering, fertilizers or pesticides. Species listed on the NYSDEC's invasive and prohibited species lists will not be used.

Air Quality

- Preliminary dust mitigation measures may include, but not necessarily limited to:

    - Stabilization of site driveways and site accesses to reduce dust during demolition, excavation, filling, grading, construction, and future activities associated with material processing operations. Examples include installing antitracking pads, applying two-inch+ stone groundcover over bare soil and providing a small mountable berm at the site entrance/exit during construction, and stabilizing proposed driveways with recycled concrete aggregate ("RCA") as proposed.
    - Limit clearing to only what is necessary using project limiting fences, if necessary, during site clearing and site preparation and construction. This will also prevent unnecessary encroachment into perimeter buffer areas and ensure that adequate yard setbacks, vegetated buffers, and screening is maintained.
    - Properly phase site work to reduce the total land area that will be disturbed/exposed to the elements at one time.
    - Comply with any requirements for a SPDES General Stormwater Construction Permit, SWPPP (if required), and Erosion Control Plan. Implement stormwater, erosion, sedimentation, and dust controls such as installation of silt fencing around work areas and stockpiles and installing sediment traps and curb and grate inlet protection.
    - Designate an appropriate location for storing demolition, construction, and site operations vehicles, equipment, and materials to reduce unnecessary activity and disturbance in non-work areas.
    - Restrict heavy truck and equipment speeds on-site to 10 mph by posting speed limit signs along the driveway.
    - Revegetate or reseed areas that are presently cleared but will not be used for future work activities; consider the use of mulch in places such as planted areas to stabilize soil.
    - Periodically dampen soils on windy days, during heavy vehicle activities or as otherwise needed to keep dust down. Apply spray adhesives, if necessary, per plan, to address dust in work areas as needed.
    - Stabilize bank areas and revegetate or reseed adjacent exposed soils that are not within proposed work areas.
    - Establish a vehicle washout station on-site to remove dust and dirt from trucks prior to leaving the property.

Land Use Zoning and Plans

- Potential adverse impacts on the residence adjacent to the east from views of the industrial operations on the subject site will be mitigated by maintaining substantial setbacks, and retaining the existing natural vegetation on the south part of the subject site.
- Additionally, the proposed project will maintain a minimum separation of 45 feet from the property line to the east for any industrial operations.
- The project conforms to the bulk requirements of the Industrial A zoning district, so that no mitigation with respect to zoning is necessary or proposed.

- The proposed project conforms to the land use recommended for the site by the Town Comprehensive Plan. Thus, no additional mitigation in this regard is necessary or proposed.

Community Character

- Installation of a berm on the north part of the site.
- Installation of fencing on the perimeter of the site operation.
- Installation of landscaping on the north, east and west perimeter of the site to provide visual screening.
- Strategic placement of crusher/screening operations within the site as depicted on project plans.
- Limit hours of operation of equipment on-site.
- Conform with Chapter 251, Noise, Public Nuisances and Property Maintenance.
- Conform with 6NYCRR Part 360/361 for facility permitting and operational oversight by NYSDEC.

Community Services

- The proposed project is not expected to burden RPD, RFD or RVAC with increased calls or demand for services based on the site operation and low number of employees on-site.
- The proposed project will use private well water, and will not connect to the RWD.
- The proposed project will contain stormwater on-site, in conformance with Town design standards.
- The proposed project will pay taxes that will be distributed to taxing jurisdiction.
- The site will be operated based on a NYSDEC Part 360 permit which includes a nuisance and vector control plan, trained personnel on-site, record keeping and reporting, and a contingency plan.
- The proposed use will pay for electrical service based on applicable tariffs.
- Natural gas service is not expected to be available to the site.

Transportation

- Truck access will be taken from Manor Road to reduce potential noise and traffic impacts on existing residences from truck traffic and to address the weight restriction on Middle Road.
- All construction access will be from Manor Road.
- Town engineering review for site access will be completed.
- As established in the TIS, no significant impacts will be created at any of the intersections evaluated in that document. Therefore, no traffic or roadway-related mitigation measures are necessary or proposed.

Alternatives Considered

For the subject application, the following alternatives were evaluated:

- **Alternative 1: No Action** - assumes that the site remains unchanged from its current use and condition.
- **Alternative 2: Development per Existing Zoning (Warehouse/Self-Storage Facility)** - assumes re-development of the site with a use that is allowed as-of-right in the site's Industrial A zoning district.
- **Alternative 3: Development per Existing Zoning (Agricultural Production/Nursery Grower) -** assumes re-use of the site with a use that is allowed as-of-right in the site's Industrial A zoning district.

Permits and Approvals Required

The following table provides a list of the permits and approvals anticipated to be necessary for the proposed project.

PERMITS AND APPROVALS REQUIRED

Applicable Board/Agency	Permit/Approval Type
Town Planning Board	SEQRA Findings Statement (as Lead Agency)
	Site Plan approval
Town ZBA	Zoning Interpretation (completed)
Town Building Department	Demolition Permit
	Building Permit
	239f review (to SCDPW*)
Town Fire Marshal	Site Plan review
Town Highway Superintendent	Highway Work Permit
RWD	Referral; Private Well Proposed
SCDHS	Sanitary System review
	Water Supply System review
SCPC*	Referral (completed)
PSEGLI	Electrical Service Connection
NYSDEC	SWPPP approval
	SPDES Permit
	NYCRR Part 360 Permit
	Article 19 State Facility Permit
NYSDOT*	Referral

* SCDPW - Suffolk County Department of Public Works; SCPC - Suffolk County Planning Commission; NYSDOT - New York State Department of Transportation.

SECTION 1.0
DESCRIPTION OF THE PROPOSED PROJECT

1.0 DESCRIPTION OF THE PROPOSED PROJECT

1.1 Introduction

This document is a Draft Environmental Impact Statement (DEIS) for an industrial project known as **Breezy Hill Group VI, LLC, Asphalt and Concrete Crushing and Screening Facility** (hereafter, the *"proposed project"*). The site of this proposal is 6.68 acres in size and is located at 1792 Middle Road in the hamlet of Calverton Town of Riverhead (hereafter, *"the project site"* or *"the subject site"*). **Figures 1-1a** and **1-1b** provide regional and local location maps of the project site, respectively (*note: all figures are in a section after the main text*). The site is composed of one tax lot, designated as District 0600; Section 100; Block 2; Lot 4.2 (see **Survey of Described Property**; *note: all plans are in pouches at the back of this document*). The subject property is located in the Town's Industrial A zoning district. While the proposed industrial use is not specifically allowed as-of-right or by special permit in the Industrial A district, the Town Zoning Board of Appeals (ZBA) has determined that it is also not specifically prohibited in this district, and so no variance is necessary or proposed.

The subject site currently contains a residence, a barn/garage, an outdoor pool/patio and a tennis court, all currently vacant and unmaintained (see **Appendix A-1**). In about mid-October 2017, the applicant cleared a portion of the site (approximately 1.58 acres) in anticipation of commencing the asphalt and concrete crushing and screening operations represented by the proposed project (see **Figure 1-2a**). Subsequent to this clearing, several piles of soil, sand and comingled aggregate as well as fill were deposited in this cleared area. However, that clearing (and associated opening of a second site access onto Manor Road) was neither applied for nor approved by the appropriate agencies. Additionally, the clearing reduced the depth of the site's vegetated buffer to the adjacent residential land to less than the required 50 feet in the Town's Industrial A district. Finally, the proposal to recycle the soils, sands and aggregate on the site requires an appropriate New York Code of Rules and Regulations (NYCRR) Part 360 permit for the acceptance of this material, to be issued under the jurisdiction of the New York State Department of Environmental Conservation (NYSDEC). As a result of the NYSDEC staff visit to the site in regard to the need for a Part 360 Permit, the recycling and stockpiling operation was closed, and a Cease and Desist Order was issued (see **Section 1.2.1,** NYSDEC Part 360 Violation and Order on Consent below). Since that time, the subject site has been inactive, pending completion of the SEQRA review process and Town Planning Board decision on the site plan application (see **Section 1.2.1**, Site Plan Application).

The proposed Breezy Hill Group VI, LLC facility will operate under a NYSDEC Part 360 permit for a Construction and Demolition (C&D) Debris Handling and Recovery Facility as outlined under regulations established within 6 NYCRR Part 360, Subpart 361.5. The facility will be permitted to only accept unprocessed C&D materials consisting of concrete, stone, brick, rock, dirt and asphalt from private contractors as well as their own construction company entity, Roadwork Ahead, Inc. These contractors, including Roadwork Ahead, Inc., will pay Breezy Hill Group VI,

LLC to crush and process the aggregate which will be stored on-site for resale to private contractors and used for construction purposes. It is expected that 75% of the imported material will be generated by private contractors and 25% of imported material will be generated by Roadwork Ahead, Inc. (a separate business entity owned by the applicant). All imported materials will be generated from projects within Nassau and Suffolk Counties.

A crucial goal of this document is to establish how the proposed project can and will address all of the regulatory-related shortcomings of the site in its current use and condition, to the satisfaction of the Town and NYSDEC. The required regulatory actions and associated site clean-up actions are described and discussed in **Sections 1.2.1 and 1.3.2**, respectively.

The proposed project will utilize the site for industrial purposes under its industrial zoning, with an asphalt and a concrete crushing and screening business. The existing frame/stucco residence will be retained and reused for office space for the facility; the barn/garage will be removed (see **Figure 1-3a**). The in-ground swimming pool/patio and tennis court will be removed. A small, unmapped man-made pond on the site will be filled.

As shown in the **Alignment Plan** and **Figure 1-3b**, the site will continue to be accessed via driveways on Middle Road and Manor Road, though both accesses will be expanded and improved for safe usage in conformance with the proposed project. The access onto Middle Road, which presently is the main entrance to the residence, will be configured to serve the office area, while the Manor Road access (which presently serves the barn/garage) will serve as the main access for trucks delivering and removing the crushed asphalt/concrete material. In this way, all truck traffic will preferentially be directed onto Manor Road. These accesses will be "stop"-controlled for departing vehicles.

Though the subject site is within the Riverhead Water District (RWD), there is no public water supply network in the area. As a result, and similar to other sites in the area, the project site obtains its potable water from an on-site private well. Sanitary wastewater from the project will continue to be retained and recharged on-site in the existing septic system serving the residence. The project will conform to all applicable flow and design requirements of the Suffolk County Department of Health Services (SCDHS).

The contents of this document address the issues specified contained in the Positive Declaration dated May 16, 2019 and the Final Scope dated February 25, 2020, ensuring that the thorough and complete review and analysis of potential impacts sought by SEQRA is conducted. This document ensures that the Riverhead Town Planning Board has the necessary information to support a "hard look" at the reasonably anticipated impacts of the project.

1.2 Project Background, Need, Objectives and Benefits

1.2.1 Project Background

Site History

As noted above, the aerial photograph in **Figure 1-2a** documents the project site in its current use and condition, showing the extent of the unauthorized clearing performed by the applicant in anticipation of the proposed project. With respect to the administrative/usage history of the subject site, the applicant's attorney has prepared the following:

> *"The applicant engaged in certain clearing on the site prior to making its land use application. The Town investigated and referred the matter as well to the DEC, who determined that no hazardous or inappropriate material or fill was transported to or stored on the site. This matter with the Town has been resolved favorably, cooperatively and amicably, and on January 5, 2021 a disposition will be entered before the Riverhead Town Justice Court with regard to the violations concerning the premature clearing that will specify a $2,000.00 fine in satisfaction of the matter."*

With respect to the usage and physical conditions of the site as well as the abutting properties, **Figures 1-2b through 1-2j** present photographs of this same area in the past, to the year 1947. This series of current and historic air photos shows that the subject site has consistently been in residential use, and was initially developed as a residential property between 1962 and 1984; prior to that, it had been undeveloped and wooded, with some clearing that suggests agricultural use.

Additionally, these figures show how the subject site and vicinity developed over time in the period 1947 to 2018, summarized as follows:

- in 1947, the immediate vicinity was mostly agricultural in nature, and the subject site was partially wooded in the south and partially cleared field in the north. The properties to the east were agricultural fields, with a single residence to the east, on Middle Road (Manor Road did not exist at this time). What appears to be an industrial operation has been established on a property to the south, on the east side of Middle Road, but the land abutting the site's southwestern boundary is agricultural.
- by 1962, residences had been constructed on each of the five narrow lots to the east, all fronting on Middle Road (Manor Road had still not been established). Two of these lots had substantial buildings in their rear yards. The subject site was still vacant and primarily wooded, though some cleared area remained in the northeastern portion of the property.
- by 1984, the subject site had been developed with the residence and associated amenities that exist today; the cleared area of 1962 was reduced in size and was undergoing natural succession. The five adjacent sites to the east were still residential in nature, and one of the rear yard structures had been removed. Manor Road had

been installed. Finally, the industrial use of 1962 had increased in size, and the property abutting the site's southwestern border had been established in a substantial acreage of industrial use

- in 2001, the previously cleared area in the subject site's northeastern corner had grown in, but some indication of use is present in this area. On the adjacent residential lot to the east, some indication of non-residential use in the rear is evident. The industrial uses to the south and the southwest remain.
- the 2004, 2007, and 2010 photos shows that the subject site is generally unchanged in use and condition from 2001, but increased non-residential use seems to be present in the rear yards of the adjacent properties. The industrial operations on the two properties to the south were continuing.
- the 2013 and 2016 aerial photos show that both the subject site and the industrial operations to the south continue generally unchanged from their uses and conditions, but property abutting the site to the east now includes a substantial non-residential building in its rear yard.

Site Plan Application

A site plan application was submitted to the Town Planning Board in June 2017, to allow for the development of the proposed project. As part of that application package, the applicant prepared a Part 1 Environmental Assessment Form (EAF), which generally describes the project and provides general information to the Town with respect to potential impacts of the project. The EAF Part 1 is contained herein, in **Appendix B-1**. After review of the application, on December 5, 2017, the Town Chief Building Inspector determined the following (see **Appendix B-2**):

> A preliminary review by this office for the above referenced project has been found to **not** be in accordance with the Zoning Code of the Town of Riverhead. Therefore your application for site plan approval has been denied. Your application may be resubmitted with the following issues resolved, or you have the right to seek relief from the Town Zoning Board of Appeals.
>
> Zoning: Industrial A (Ind A)
> Section(s): Section 301-114 A. Proposed Construction and Demolition Debris Processing Facility use is not a permitted principle use within the zoning district.

In response, the site plan application was resubmitted to include need of a variance from the ZBA under Town Zoning Code Section 301-114 A., to allow the proposed use in the Industrial A district. The EAF Part 1 was revised on January 23, 2018 accordingly and resubmitted (see **Appendix B-3**).

Simultaneous with the submission of the revised EAF, the applicant appealed the Chief Building Inspector's determination regarding allowed uses in the Industrial A district to the ZBA. On April 12, 2018, the ZBA issued its Interpretation letter (see **Appendix B-4**) indicating that, while

the proposed concrete crushing operation is not specifically permitted in the Industrial A zone, it is also not specifically prohibited in that zone. This Interpretation was confirmed by the ZBA Clarification letter dated October 1, 2018 (see **Appendix B-5**).

With the issue of a need for a variance addressed, the Town Planning Department completed its review of the site plan application in the form of a Staff Report (see **Appendix B-6)**, which recommended to the Planning Board that a Positive Declaration be issued, based upon the following concerns:

1. Potential impacts to groundwater and local water resources.
2. Noise pollution.
3. Dust impacts.
4. Traffic impacts.
5. Roadway and infrastructure.
6. Removal of agricultural soils.
7. Stormwater management and drainage.
8. Removal of existing vegetation.
9. Loss of required screening and buffers with residential properties.
10. Compatibility with the Town's Master Plan.

As the site plan application is administered under the jurisdiction of the Riverhead Town Planning Board, it conducted a Coordinated Review under SEQRA and, as that review produced no objections from any other Involved agency, on May 16, 2019, Planning Board assumed lead agency status, and issued a Positive Declaration, which requires preparation of a DEIS (see **Appendix B-7**). The following issues of concern were specified in the Positive Declaration:

1. The use poses potential threats to the groundwater supply in an area where public water infrastructure is not currently available and whose water usage for uses in the surrounding [area] is provided via wells fed directly from groundwater.
2. The use has the potential [to] increase heavy industrial traffic along roadways within an area containing residential, rural and industrial uses.
3. The use has the potential to degrade existing roadway and infrastructure as a result of increased heavy industrial traffic.
4. The use has the potential to increase noise levels and present impacts to neighboring residential [use].
5. As a result of illegal land clearing by the applicant, the use has the potential to create significant adverse visual impacts to neighboring residential properties;

In response to the Positive Declaration, the applicant prepared a Draft Scope, which identified the environmental issues and methods of study to be addressed in the DEIS. This document was submitted to the Town in December 2019, and was made available to the public and involved agencies for review and comments. Written comments were accepted by the Town, and the Draft Scope was revised by the lead agency accordingly. A public hearing on the

revised Draft Scope was conducted by the lead agency on February 20, 2020, at which time the revised Draft Scope was adopted by the Town Planning Board as the Final Scope (dated February 25, 2020; see **Appendix B-8**). This document has been prepared to conform to the issues and format specified in the Final Scope.

NYSDEC Part 360 Violation and Order on Consent

As part of its processing of the original site plan application, the Town had forwarded a copy to the NYSDEC, which staff visited the site in the summer of 2017. As detailed in **Appendix C-1**, NYSDEC staff observed that a number of violations of NYCRR Part 360 regulations were occurring on the site, and issued a Cease and Desist Order dated March 21, 2018. Ultimately, the NYSDEC and the applicant (operating as the company "Roadwork Ahead, Inc.") reached an Order on Consent requiring that the importation of material to the property cease and that site cleanup investigation activities be initiated to classify imported materials in accordance with NYCRR Section 360.13.

The applicant prepared a Site Characterization Report and Remediation Plan (see **Appendix C-2**) to perform the testing that was required by the Order on Consent and then, based on those test results, formulated a plan to properly remediate the site. As indicated in the e-mail from the NYSDEC reviewer for the site (see **Appendix C-3**), the Site Characterization Report and Remediation Plan was approved, and subsequently implemented.

The Order on Consent also indicated that future use of the site for activities that would be regulated under ECL Article 27 and NYSDEC Part 360 would obtain such permitting. The applicant has prepared and submitted a Part 360 permit application and accompanying Engineering Report (see **Appendices C-4 and C-5**, respectively). That application is presently under NYSDEC review, which decision is pending the Town's completion of the SEQRA process on the site plan application.

Subsequent Dumping On-Site

In early 2021, the site was the subject of a small amount of unauthorized dumping, which was detected by the NYSDEC. Upon notification of this incident (the site was vacant and unoccupied at that time), the owner immediately removed the dumped material. No further description of this material, the location or amount of this material, results of any testing of the dumped material, or further documentation of this incident is available.

1.2.2 Public Need and Objectives

The subject site is zoned Industrial A, and the applicant's objective is to use the site in conformance with zoning and the interpretation letter of the ZBA issued October 18, 2018 and referenced in **Section 1.2.1** above. The applicant believes there is a public need for the project and proposes this project to address this need.

Generally, the need for a specific type and/or location of development is established by the public (in concert with applicable Town entity, such as a Town Board or a Town Planning Board), and expressed in the form of recommendations in a planning document, such as a Town Comprehensive Plan. In this way, the public establishes its needs, and the Town prepares a plan containing recommendations to address those needs in a cohesive, well-regulated manner.

With respect to the Town Comprehensive Plan, (hereafter, "the Plan") the needs of the community are expressed by the recommendations associated with the Plan's "Elements." As described in **Section 3.1.1**, the Plan has eleven Elements, of which three apply to the proposed project. The project's conformance to each are also discussed in **Section 3.1.2**, and are briefly summarized as follows:

Land Use Element
The proposed project conforms to the industrial land use designated for the site by the Town Comprehensive Plan (as well as to the zoning category in which the site is designated by the Plan).

Economic Development Element
The proposed project will not add to any emerging tourist economy or activity in the Town, but will incrementally increase the industrial economy of the Town by increasing industrial employment and by producing construction-related building materials for local and regional development.

Utility Service Element
The project site is presently served by only one utility: electricity (from PSEGLI). It is served by an on-site private well for potable water, and is not served by National Grid (for natural gas), nor is it connected to the Riverhead Sewer District (the residence has a septic system). In this way, the potential impacts on these utility providers will be minimized. Thus, the public need for the proposed project can be established by analysis of its conformance to the applicable recommendations of the Town's Plan. The site zoning is based on the Town's comprehensive plan and the official zoning map, and provides for uses determined to be appropriate based on these overarching land use documents. The project's conformance with zoning is consistent with the Town's intended use of the property.

Town Code Chapter 273 addresses Solid Waste in the Town of Riverhead. The applicant seeks to operate the proposed use on the proposed site in conformance with this Local Law. Under "Purpose," Section 273-2 states that this law is intended to *"…protect the health, safety, and welfare of the residents of the Town of Riverhead by controlling the storage and disposal of solid waste generated within the Town" [emphasis added].* It is acknowledged that the C&D materials brought to the site will not necessarily originate within the Town of Riverhead; the facility will process qualified C&D materials generated within the bi-county region (though most likely in central and eastern Suffolk County). However, it must be remembered that the

proposed project is an industrial use for a commercial business and does not represent a municipal service intended to benefit only the Town of Riverhead. The subject operation involves processing of concrete, asphalt and the other permitted materials that are generated by, for example, demolition of roadways and parking lots. The applicant obtains these waste materials from both private and public projects (such as reconstruction/repaving of County, Town and Village roadways), for which the applicant is the removal contractor. As a result, a definitive schedule, geographic distribution, or description of waste availability cannot be established for the proposed project, as wastes are generated throughout the region on a case-by-case basis based on market conditions.

With respect to site operations, the applicant will take controlled waste to the subject site, to be weighed and the volume established, and deposited into a single stockpile. The stockpile will then be screened, to separate the individual types of material for further processing (i.e., concrete, asphalt, brick, etc.). Each separated stockpile will then be processed into a final product, for removal (by sale to a contractor for re-use, or by the applicant for re-use). No retail (i.e., to the general public) sales are proposed; the processed materials will be used primarily by the applicant for his own projects, though a portion may occasionally be sold to other contractors (the proposed project is not a wholesale facility).

Because of limits on the size and area of the stockpiles, it is expected that the facility will be subject to temporary cessation of operations, until such time that stockpile space is cleared by sale/removal, making space available to continue to stockpile processed materials.

Under Purpose, Section 273; §273-2, the code indicates the desire for *"…increased efforts to recover and reuse recyclable materials will protect and enhance the Town's physical environment and promote the health and safety of persons and property within the Town."* In keeping with the purpose outlined in the code, the project sponsor will operate the facility in an environmentally sound manner and in conformance with all applicable State, Town and County requirements, and will add to economic activity within the Town. This DEIS further examines the operation and environmental protection measures, and therefore addresses the other aspects of Chapter 273. Other provisions of this Chapter include licensing of authorized collectors with which the applicant will comply as applicable and other provisions regarding other solid waste streams within the Town which do not pertain to the proposed project.

The proposed project represents an industrial use that recycles a limited portion of the C&D waste stream, for commercial purposes. It is not a "regional solid waste facility"; it will not process or accept any wastes other than the specific types of C&D wastes generated by roadway construction, building demolition, or other types of construction activity that generates the wastes that the proposed facility can and will accept.

The applicant seeks a site use in conformance with zoning and in keeping with the type operation with which the operator is familiar. The proposed project will serve the demolition, development and redevelopment industries (including but not limited to roadway contractors

and general construction contractors), which are dependent upon evolving market trends and conditions. Therefore, based on the nature of the business, it is not possible to precisely predict what types of wastes will be generated, how much (in terms of either volume or mass) of each type will be generated, a schedule as to when such wastes will be generated, or the geographic origin of these wastes. The proposed use specifically serves the development industry in terms of receipt of solid waste from demolition and production of material for construction. Development that generates raw material and/or uses by-products occur routinely in the Town and region, and will be well-served by the proposed use. The facility will be run based on industry operational standards to address demand for material recycling and generation of by-product for reuse. The facility will operate in conformance with Town and State requirements and serves solid waste needs as outlined herein, in an environmentally sound manner as will be documented through this DEIS.

According to information contained in the Town's *Draft Local Solid Waste Management Plan, Update 2020-2029* (DLSWMP; see **Appendix A-2**), there are presently six (6) entities operating nine (9) facilities in the Nassau-Suffolk region that handle C&D materials, of which only one facility (Crown Sanitation transfer station, in Calverton) is within the Town of Riverhead. The nine C&D facilities include:

Peconic Recycling and Transfer Corp., 560 Commerce Road, Mattituck, NY 11935

- Carter Transfer Station - 810 Commerce Road, Mattituck, NY 11935
  Transfer Station Capacity:
  a. MSW – 400 tons/day
  b. C&D – 400 tons/day
  Processing of Materials at Transfer Station:
  a. Recyclables pulled and separated by commodity
  b. Metals remain on Long Island and are sent to Disposal Facility
  c. Remaining Trash after separation process is sent to Disposal Facility

National Waste Services LLC., 1863 Harrison Avenue, Bayshore, NY 11706

- Carter Transfer Station #2 – 45 Garfield Avenue, Bayshore, NY 11706
  Transfer Station Capacity
  a. C&D – 750 yd3/day

Crown Sanitation, 865 Youngs Avenue, Calverton, NY 11933

- Carter Transfer Station – Crown Sanitation, 865 Youngs Avenue, Calverton, NY 11933
  Transfer Station Capacity:
  a. MSW – 375 tons/day
  b. C&D - 825 tons/day
- C&D Disposal Facility #1 – Town of Brookhaven Landfill, 350 Horseblock Road, Brookhaven, NY 11719
  As per DEC website, 832,121.26 total tons solid waste was received in 2019.
- C&D Disposal Facility #2 –110 Sand and Disposall, 136 Spagnoli Rd., Melville, NY 11747
  As per the Engineer Jim Deveson their permit allows 6,000 tons/day

Winters Bros. Waste Systems, 82 Old Dock Road, Yaphank, NY 11980

- C&D Carter Transfer Station – 82 Old Dock Road, Yaphank, NY 11980
  Transfer Station Capacity
  a. C&D – 780 tons/day

Maggio Sanitation, 88 Old Dock Road, Yaphank, NY 11980

- Carter Transfer Station – 88 Old Dock Road, Yaphank, NY 11980
  Transfer Station Capacity
  a. MSW – 86 tons/day
  b. C&D – 60 tons/day
  c. Cardboard – 18 tons/day

Jet Sanitation, 228 Blydenburg Road, Islandia, NY 11749

- Carter Transfer Station – 228 Blydenburg Road, Islandia, NY 11749
  Transfer Station Capacity
  a. MSW – 13 tons/day
  b. C&D – 1 ton/day
  c. Corrugated Recyclables – 1 ton/day

Colucci Carting, 50 Miller Place-Yaphank Road, Middle Island, NY 11953

- C&D Carter Transfer Station – 82 Old Dock Road, Yaphank, NY 119801
  Transfer Station Capacity
  a. C&D – 780 tons/day

It is noteworthy that of the nine C&D facilities reviewed here, seven (7) are transfer stations, one is a Town landfill, and one is a disposal facility. None of the nine C&D facilities are described as a recycling operation for C&D materials, which describes the purpose and the operation of the proposed project. The DLSWMP is described in more detail in **Section 3.1.1**, and the project's conformance with its recommendations is discussed in **Section 3.1.2**.

Appendix A-3a contains a listing of the C&D processing facilities in Nassau and Suffolk counties which are or had been Registered under the NYS Part 360 Permit Program, as administered by the NYSDEC Division of Materials Management. The list was obtained from the NYSDEC website (*https://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf*) on June 22, 2021, and so represents recent data available as of that date.

Review of the list indicates that, of the 76 facilities listed, only four (4) are located in the Town of Riverhead and, of these four, three (3) are listed as "Retired," and one (1) is currently Registered. As confirmed by the NYSDEC, Division of Materials Management:

> Facilities listed as "Retired" in the database are either completely inactive, or are now operating under a new facility ID because of the new Part 360 revisions put into effect in 2017 – facilities which transitioned from old, pre-2017 Part 360 regulations and renewed their permit/registration into compliance with new 360 operate under a new facility ID, with their old ID designated as "Retired." Thus, the "Retired" activities are associated with

> operating facilities that have not been transitioned into the new Part 360 permit context. Once the new permit or registration is issued, this will be updated. Inactive facilities will be removed from the list the next time it is generated.

With respect to the difference between a Registration and a Permit under Part 360 requirements, the NYSDEC, Division of Materials Management indicates:

> In general, for a SWMF, a Registration is intended for smaller operations, while a Permit allows for more broad activities and throughputs and is a higher, more customized level of authorization. A Registration is typically for facilities performing single limited activities such as concrete crushing, composting, mulching in small scale.

The three "Retired" facilities include (see **Figure 1-4**):

- Sky Materials, 4371 Middle Country Road, Calverton (Part 360 Permit #52W80R) - site is located in an area dominated by agricultural, commercial and residential land uses; the site is zoned Industry C. It processes asphalt, brick, concrete, gravel, rock, soil (clean), unadulterated wood, and wood (trees, brush, branches and stumps).

- TS Haulers, 3968 Middle Country Road, Calverton (Part 360 Permit #52W77R) - site is located in an area dominated by agricultural, commercial and residential land uses; the site is in the Agricultural Protection Zone (APZ). It processes asphalt, concreate and ferrous and non-ferrous metals.

- Horton Avenue Materials, 229 Horton Avenue, Riverhead (Part 360 Permit #52W135R) - site is located in an area dominated by single-family residential and agricultural land uses; the site is zoned APZ. It processes concrete, brick, rock, soil (clean), asphalt and wood (clean).

The one "Registered" facility is (see **Figure 1-4**):

- Riverhead CB, LLC, 1146 Osborn Avenue, Riverhead (Part 360 Permit #52C10251) - site is located in an area dominated by commercial, industrial, institutional, utility, residential and vacant land uses; the site is zoned HR (Hamlet Residence). It processes brick, concrete, rock, asphalt pavement, asphalt millings, clean soil, sand and gravel.

Appendix A-3b contains a listing of the C&D processing facilities in Nassau and Suffolk counties which had been or currently have a Permit under the NYS Part 360 Permit Program, as administered by the NYSDEC Division of Materials Management. The list was obtained from the NYSDEC website (*https://www.dec.ny.gov/docs/materials_minerals_pdf/listpermcdprocess.pdf*) on June 22, 2021, and so represents recent data available as of that date.

Review of the list indicates that, of the 35 facilities listed, only two (2) are located in the Town

of Riverhead, and both are listed as "Permitted." These two facilities include (see **Figure 1-4**):

- Crown Recycling Facility, 865 Youngs Avenue, Calverton (Part 360 Permit #52W01) - site is located in an area dominated by agricultural, residential, industrial, and vacant land uses; the site is zoned APZ. It is permitted to process C&D debris, wood (brush/branches/trees/stumps), concrete, unadulterated wood and paper/cardboard.

- Guillo Enterprises, Inc., 3829 Middle Country Road, Calverton (Part 360 Permit #52CP0239) - site is located in an area dominated by agricultural, commercial, retail, institutional and vacant land uses; the site is zoned Industry C. It is permitted to process wood (brush/branches/trees/stumps), brick, asphalt pavement, concrete, rock and clean soil.

Review of the above information on existing C&D processing facilities in the Town of Riverhead indicates the following:

- there are at present two (2) facilities that are Permitted by the NYSDEC;
- there is at present one (1) facility that is Registered by the NYSDEC; and
- there are at present three (3) facilities that are "Retired" by the NYSDEC.

It is noteworthy that all six of the above facilities are located in either Calverton or Riverhead, are zoned over a range of zoning classifications corresponding to uses having varying intensities (i.e., from low-intensity APZ to higher-intensity industrial uses), and are located in generally rural contexts characterized by a mix of lower-intensity land uses; further, all six sites are between 1.14 and 2.65 miles from the subject site. These commonalities suggest that the area is appropriate for the type of industrial land use represented by the proposed project, since a number of similar facilities are already found here. Additionally, as the Town maintains authority over land development, it is reasonable to assume that the Town deems the area to be appropriate for C&D processing facilities as multiple such sites occur in proximity to one another.

With respect to the need for additional C&D recycling capacity, the proposed project is not intended to process C&D wastes that are generated exclusively in the Town of Riverhead, but from sites located throughout central and eastern Suffolk County. There are already numerous C&D processing facilities in western Suffolk County and Nassau County that process wastes from areas to the west of the subject site. It is acknowledged that the proposed project is not specifically intended to satisfy Town Code Chapter 273 per se, as it is not intended to be limited to processing wastes generated only in the Town of Riverhead, but is intended to serve the recycling needs within a larger geographic area, including the Town of Riverhead.

As such, the applicant believes that the proposed C&D processing facility conforms to the goal of Town Code Chapter 273, is a needed facility, and is appropriately located.

1.2.3 Objectives of the Project Sponsor

The applicant's overall objective can be described by a set of inter-related considerations, as follows:

- realize a reasonable economic return on the investment in land and associated improvements;
- produce a useful, appropriate and needed industrial operation by re-developing the subject site with a use that conforms to the site's industrial zoning requirements and limitations;
- provide an industrial operation that conforms/complements the types of industrial uses on nearby sites;
- minimize potential adverse impacts on adjacent and nearby residential sites;
- conform to the land use type recommended in the Town Comprehensive Plan for the site;
- minimize potential adverse impact to groundwater resources;
- minimize potential adverse visual impacts on passing drivers and local residents;
- minimize the potential impact to local stormwater runoff patterns;
- provide safe and efficient vehicle access in conformance with Town and County highway access limitations; and
- conform to all other appropriate land use and development requirements.

1.2.4 Benefits of the Project

It is acknowledged that the industrial nature of the proposed project would not lend itself to provision of benefits to the community. However, it is expected that the project will benefit the community primarily by minimizing adverse impacts that would otherwise occur from other types of allowable industrial use, and will include aspects that will minimize potential adverse impacts, as follows:

- the proposed project will redevelopment an unmaintained, unattractive & unsafe site;
- the proposed project will incrementally increase local employment;
- the proposed project will incrementally increase the local economy from its business revenues;
- the proposed project will provide industrial use that causes minimal local impacts, and would allay local concern that a more impactive use would be located on the site;
- the proposed project's operations will cause minimal impact on local roadways that otherwise would have experienced more traffic, and a higher intensity of use, than if the site were used for a more intensive industrial use such as the adjacent concrete manufacturing facilities;
- the proposed project will incrementally reduce truck traffic departing the region by retaining a portion of the C&D waste stream in the region for recycling;

- the proposed project will redirect a portion of regional truck traffic to the subject site, thereby incrementally reducing truck traffic on roadways that presently carry these trucks to the nine C&D facilities noted to presently be proximate to the subject site;
- the proposed project will incrementally reduce the volume of C&D material landfilled at landfill facilities west of the subject site;
- the proposed project will cause minimal change in water resources impacts;
- the proposed project will cause minimal impacts to aesthetics of the site or area (due to its limited operations and plantings of buffering vegetation);
- the proposed project will strictly limit hours when noise impacts could occur; and
- the proposed project will strictly regulate the routes that trucks may utilize to access site, and away from local residences.

1.3 Project Location and Existing Site Conditions

1.3.1 Project Location

The property is specifically identified as Suffolk County Tax Map District 0600, Section 100, Block 2, Lot 4.2. The street address of the site is 1792 Middle Road, Calverton.

The subject site is 6.68 acres in size and is located on the north side of Middle Road and south of Manor Road. To the north of the site and beyond Manor Road are agricultural lands; abutting the site to the east are seven lots occupied by the following uses:

- 1783 Middle Road - a detached, single-family home
- 1776 Middle Road - a detached single-family home, with a non-residential use (believed to include landscaper's yard/outdoor storage/mechanical repair) in the rear yard
- 1768 Middle Road - a detached single-family home, with a non-residential use (believed to include landscaper's yard/outdoor storage/mechanical repair) in the rear yard
- 1763 Middle Road – a detached, single-family home
- 1760 Middle Road - a detached single-family home
- 1756 Middle Road - a detached single-family home
- 1742 Middle Road - a detached single-family home

Farther to the east across Middle Road is undeveloped wooded land. To the south and the southeast are industrial uses; and to the west are agricultural fields and industrial properties (see **Figure 1-5**).

The site is within the following planning and/or service zones and districts:

- Industrial A Zoning District
- Long Island North Shore Heritage Area
- Central Suffolk Special Groundwater Protection Area (SGPA)

- Groundwater Management Zone III (300 gallons per day per acre; gpd/acre)
- Federal Emergency Management Agency (FEMA) Flood Hazard Zone X
- Riverhead Water District (RWD; *site and area are not served*)
- Riverhead Central School District
- Riverhead Free Library District
- Riverhead Volunteer Fire District
- Riverhead Volunteer Fire Department
- Riverhead Town Police Department
- Riverhead Volunteer Ambulance District
- Public Service Electric and Gas Company, Long Island (PSEGLI; electricity)
- National Grid (natural gas; *site and area are not served*)

The subject site is not within the Central Pine Barrens Zone or in an Agricultural District.
As shown in **Figure 1-6**, the subject site is not within any NYSDEC-designated Potential Environmental Justice Area; the nearest such area is located about 1.8 miles to the southeast, on the south bank of the Peconic River, in the Town of Southampton. As a result, there is no impact with respect to an environmental justice area.

1.3.2 Existing Site Use and Conditions

A series of photographs taken in August 2019 document the appearance and condition of the subject site and its immediate surroundings, as of that date (see **Appendices A-1 and A-4**). As can be seen, the site was inactive and unused at that time; the site has remained unused and inactive (except for two incidents of unauthorized dumping, discussed above).

As noted above, the applicant is committed to properly clean-up the subject site and obtain the NYCRR Part 360 permit from the NYSDEC necessary to operate the proposed facility. To that end, the applicant engaged Nelson, Pope & Voorhis, LLC (NPV) to prepare and submit a work plan (dated July 16, 2018) to the NYSDEC to conduct this clean-up process. Upon NYSDEC approval, the clean-up was undertaken. Subsequently, NPV prepared a Site Characterization Report and Remediation Plan, which summarized the protocols, methods, procedures and results of the investigation and clean-up process.

There are presently no pending violations or enforcement actions with regard to the site. Town enforcement matters have been resolved, and the NYSDEC Work Plan has been implemented. A NYSDEC Part 360 permit has been applied for and is pending. Materials from that application are included herein, in **Appendix C-4.**

1.4 Project Design and Layout

1.4.1 Project Description and Overall Site Layout

Table 1-1 presents a list of the various pertinent site and project quantities, for both the existing condition and the proposed project.

The proposed project is an asphalt and concrete crushing and screening facility on a 6.68-acre industrially-zoned property that currently containing is developed with a single-family residence and associated accessory structures. As shown in the **Alignment Plan**, the proposed facility will operate two crushing/screening equipment stations, and there will be a total of five asphalt/concrete stockpiles. The project requires site plan approval from the Town Planning Board, the application for which was submitted in approximately January 2018. No variances are required for the proposed project. Zoning conformance is depicted on the Alignment Plan (Drawing No. C-101; Sheet 2 of 9) and discussed further in **Section 3.1.2** of this DEIS.

The residence is a one-to-two story frame/stucco building that will be converted to an office use for the facility; the one-and-a half-story frame barn/garage will be removed. The in-ground swimming pool/brick patio, the tennis court area, the wooden bridge abutting the pond, various pieces of fencing, the concrete driveway, and the swimming pool propane tank and heater will also be removed. A small (0.01 acre) unmapped man-made pond will be filled.

To reduce visual and noise impacts on passing motorists and neighboring residents to the east, landscape mitigation buffers (as well as fencing, and a berm to the north) along the property's northeastern, northern, and western boundaries will be provided. With respect to potential impacts to the southeast and south, substantial amounts of existing natural vegetation within the site will be retained

The project will retain the driveways in their current locations on Middle Road and Manor Road, but will expand and improve each; the access on Middle Road will be configured to serve the office area, and the Manor Road access will be the access for trucks. Both of these driveways will be "stop"-controlled for departing vehicles. All of the internal roadways and parking areas will be covered with recycled concrete aggregate (RCA), to minimize runoff and enhance stormwater recharge in-place.

The project will include an on-site drainage system utilizing two pretreatment sediment basins that will overflow to a drainage reserve basin in the southern portion of the property. The system will have a capacity that is 15.5% in excess of the minimum capacity required by Town of Riverhead design standards, for a two-inch rainfall.

Table 1-1
SITE AND PROJECT CHARACTERISTICS
Existing Conditions and Proposed Project*

Parameter	Existing Conditions	Proposed Project
Use & Yield	Residential/1 unit (vacant)	Industrial/ crushing & screening facility (residence used for office space)
Zoning	Industrial A	
Wastewater Treatment System	On-Site Septic	
Coverages (acres)**:**	---	---
Buildings	0.18	0.15
Paved/Impervious	0.07	0.38
Unpaved/Equipment Storage	0.09	0.62
Material Stockpiles	---	1.63 (1)
Unprocessed Mixed (max.)	---	*0.65*
Processed Soil (max.)	---	*0.39*
Processed RCA (max.)	---	*0.49*
Processed Asphalt (max.)	---	*0.10*
Pervious (RCA)	0	0.61
Successional Old Field	1.56	0
Man-Made Pond	0.01	0
Landscaped	0	1.47 (1)
Naturally Vegetated	4.77	1.82
TOTAL	6.68	6.68
Water Resources:	---	---
Domestic Use/Wastewater (gpd) (3)	0/300 (2)	343
Irrigation Water Use (gpd) (4)	0/387	387
Vehicle Trips Generated (vph):	---	---
Weekday AM Peak Hour	0/6	15
Weekday PM Peak Hour	0/1	15
Saturday Midday Peak Hour	0/19	18
Miscellaneous:	---	---
Site Occupants/Employment (5)	0/2.53	6
Parking Required (spaces) (6)	1	14
Parking Provided (spaces)	4	14 (7)

* See **Figure 1-3a** for Existing Conditions & **Figure 1-3b** for Proposed Project.
(1) Total outside storage area is less than maximum allowed area in Industrial A zone.
(2) House/property currently vacant; could be used as residence with 300 gpd water use; vehicle trips, occupancy.
(3) Based on SCDHS Commercial Standards; office = 2,628 @ 0.06 gpd/SF; storage = 3,521 @ 0.04 gpd/SF.
(4) Landscape/agricultural irrigation based on 1"/week for 20 weeks over landscape/agricultural area; each use has 0.26± acres irrigated landscape; agriculture has 6 acres irrigated farm; all values annualized.
(5) Site occupants are average Riverhead household; and Proposed Project is per the proposed action.
(6) Parking determined using Riverhead Zoning Code, Chapter 301; 301 Attachment 1 Parking Schedule; Industrial Use parking determined for Industrial/Manufacturing and Warehouse; Agricultural Use = general commercial based on building size.
(7) Includes 3 landbanked spaces.

1.4.2 Grading Program and Drainage System

Anticipated Clearing and Grading

The information in **Table 1-1** indicates that an estimated 4.71 acres of the site (70.51%) will be cleared for the proposed project. This value includes 0.03 acres for the garage/barn (to be removed), 0.07 acres of existing paved surfaces (the pool and patio), 0.09 acres of existing unpaved surfaces, the 1.56 acres of unkept, weedy successional old field, the existing 0.01 acre man-made pond, and 2.95 acres of natural vegetation. Natural vegetation on the site will be reduced from 71.41% to 44.16% of the site. As indicated in **Table 1-1**, 1.82 acres of natural vegetation, or 27.25% of the site, will remain. The impervious building and pavement area will consist of the existing building, plus expanded driveway and parking areas and will total 0.53 acres, or 7.93% of the site. Landscaping will comprise 1.47 acres, or 22.01% of the site, and will include areas outside of the perimeter road, areas between the operation and the office building, and drainage overflow areas. The remaining area will consist of the operation areas of the site, which will include an access and perimeter road totaling 0.61 acres or 9.13% of the site, and the storage and processing areas within the perimeter road, totaling 2.86 acres, or 42.81% of the site.

As shown in the **Grading & Drainage Plan**, soil disturbance will occur on most of the north part of the site to accommodate the proposed concrete crushing and screening operation, and parts of the southern portion will be cleared for expanded access and parking areas for the office, and drainage overflow areas. Significant natural vegetation areas will remain in the southeast and southwest parts of the site, with some perimeter buffer along the east and west parts of the site.

Grading will occur to establish suitable surfaces for the facility operation. The land slopes generally from north to south. As a result, grades are changed to create a more gradual slope within the site, from north to south. This entails regrading and removal of soil to create a gradual slope with a relatively flat surface to allow the facility to be placed in the north central part of the site. This grading requires the redistribution of soils on-site in a cut/fill operation, whereby existing low points will be subject to “fill” and existing higher elevations will be “cut.” An estimated 3.24 acres of the site will be graded for the project; the existing house (0.15 acres), areas planned to be landscaped (1.47 acres), and the retained naturally-vegetated area (1.82 acres) will not be graded. Generally, the grading program will maximize the retention of cut soils on the site as fill; however, an excess of about 9,000 cubic yards (CY) of cut material will be removed from the site. The greatest depth of cut for is in the northeast part of the site, and will be 5-6 feet. Drainage systems will involve deeper localized excavations of up to 16 feet for installation of drainage structures, which will then be backfilled around the drainage leaching structures.

The process of removing the excess soil is expected to result in truck traffic. Assuming 20 trucks per day, based on 40 CY trucks filled with 32 CY per truck, 640 CY per day can be removed from the site. Based on a 5-day work week, it would take approximately 3 weeks to remove this

material from the site. Based on a 10-hour day (between 7 AM and 5 PM), there would be approximately 4 trucks per hour leaving the site, and 4 trucks per hour entering the site. Material removed from the site would be transported off-site to other construction industry use facilities. The subject site is within an industrial area and convenient road access to the Long Island Expressway is available. As a result, temporary trucking activities will have a minor impact on roads to/from the site; however, the impact is expected to occur for a 3-week period, between 7 AM and 5 PM, and will be limited to approximately 8 truck trips per hour. This level of temporary inconvenience is not considered significant given the limited time period of the operation, limited truck trips and limited hours of operation, as well as the industrial nature of the area, and convenient access to major roads for off-site transport.

Drainage System

The stormwater runoff generated on the property will be handled within an on-site drainage system whose design will be subject to review and approval by the Town Engineering Department. As required by Town design standards, the system will be designed to accommodate in excess of two (2) inches of water over the entire site. As shown in the **Grading & Drainage Plan**, this is 30,716 CF of water. It is noted that the drainage system has been updated from the Preliminary Site Plan for 1792 Middle Road at Calverton," sheet C-103 Grading & Drainage Plan, prepared by Nelson & Pope, dated April 3, 2017. The updated plan, revised per Town comments, is last dated 6-22-21 and features a modified drainage system to reduce the size of the drainage basins in favor of retaining more natural vegetation on the site. The modified drainage system provides a series of leaching pools in combination with a vegetated overflow in a natural depression on the site.

The site's drainage system will include subsurface leaching pools strategically placed at low points to intercept stormwater. The site is divided into three (3) Drainage Areas including the northern process/storage area (DA-A), the south natural and paved areas for office access (DA-B), and the office and immediate office parking area (DA-C). The process/storage area slopes from north to south. Drainage will be provided at the downslope area laterally from east to west along the interior RCA roadway. Two (2) strategically placed catch basins will overflow to twelve (12) solid cover subsurface leaching pools. Part of this system includes four (4) inter-connected open grate leaching pools that will receive water from the drainage area via surface infiltration as well as overflow from the solid cover pools. The drainage system for this area is sized to provide the required storage for DA-A and there is an overflow outlet to a closed natural contour area on the property for additional drainage reserve. The south part of the property provides drainage for the paved driveway area using a catch basin and four (4) solid cover subsurface leaching pools, sized at an appropriate capacity for DA-B. The office area includes a catch basin and one (1) solid cover leaching pool, sized at an appropriate capacity for DA-C. The total capacity of the proposed drainage system is 31,783± CF. Thus, the project's drainage system will have a capacity that is 4.34% in excess of the minimum required system capacity, and will therefor conform to Town requirements.

The surface of the water table beneath the site is at elevation of about 22 feet above mean sea level (asl). The lowest elevation of any drainage installation area is approximately 42 feet asl, therefore the depth to groundwater at the lowest elevation of drainage installations is 20 feet. The effective depth of the subsurface leaching structures is 15 feet, therefore, there is adequate depth to groundwater to allow for placement above the water table. As the Town design standards require that at least two (2) feet of vertical separation be maintained between the lowest elevation of the drainage system and the water table, the bottoms of the leaching pools will be well above the water table in consideration of covers and invert elevations.

1.4.3 Vehicle Access, Internal Circulation, and Parking

Vehicle Access

As shown by the **Alignment Plan**, the proposed project will utilize the same two vehicle access locations as presently exist, though both will be improved to accommodate the increased usage from the project. It is noted that each of the access points will be restricted to only one type of vehicle traffic; the Middle Road access (to be 24 feet wide) will only be used by the office employees, and the Manor Road access (30 feet in width) will only be used by trucks and the employees of the crushing/screening operation.

As part of the Town's site plan review process, the Town Fire Marshal and representatives of the Riverhead Fire Department will evaluate the project design for proper access for emergency and fire personnel and equipment. The Traffic Impact Study (TIS) referenced in **Section 3.4** Transportation, evaluates off-site vehicle trips and potential impact on the roadways. Internal circulation is described below.

Internal Circulation

The proposed internal roadway system is designed to minimize the potential for interactions between truck traffic and non-truck, office-related (i.e., automobile) traffic. From the Manor Road driveway, an internal roadway will loop through the northern half of the site, to encircle the areas used for stockpiling and concreate crushing and screening operations area. This uncurbed roadway will be 20 feet wide and surfaced with RCA. In order to maintain a smooth internal truck traffic flow, this internal loop road will be restricted to counterclockwise flow only. There will be two truck scales located along this roadway, so that trucks can be easily weighed upon arrival and departure.

The office building will connect directly to the Middle Road driveway via a 24-foot wide curbed asphalt roadway, that accesses the parking spaces abutting the office, and also leads to a connection to the loop roadway described above, to facilitate interaction between the office portion of the site and adjacent work area.

Parking

The project will provide eleven (11) parking spaces adjacent to the office structure, and designate an area for three (3) additional spaces along the loop roadway. As the Town Code requires a minimum of 14 parking spaces, the proposed project will conform to this standard.

It is expected that the trucks will be parked within the loop roadway when delivering/picking-up materials.

1.4.4 Site Landscaping, Buffers, and Vegetative Screening

As noted in **Section 1.4.2** above, 1.82 acres of natural vegetation, or 27.25%, will remain on-site primarily in the southwestern and southeastern corners of the property. This latter area abuts the residential portion of the first of the five residential lots in this direction, which would retain much of the screening effect that now exists on the site for these neighbors. In those parts of the site to be cleared, a perimeter buffer of about five feet in depth will be retained. As a result, in the area between the perimeter buffer and the outer edge of the loop roadway, topsoil will be emplaced, and a hydroseed mix (specifically, a "Hydroseed "B", Ecology Mix, 80% Reliant Hard Fescue and 20% Jamestown II Chewings Fescue) will be applied, at a rate of 170 pounds per acre.

As shown in the **Alignment Plan**, for the northern portion of the site, where the concrete crushing and screening operations will occur, minimum 25-foot development setbacks will be maintained, which will help reduce potential impacts to the neighboring properties, particularly for the residences to the east.

1.5 Demolition & Construction, and Site Operations

1.5.1 Demolition & Construction

Schedule

It is expected that the process of constructing the proposed project will start shortly after issuance of the necessary demolition and building permits from the Town, and last about four (4) months. The anticipated impacts associated with construction operations are discussed in **Section 4.1**.

Construction activities will conform to Town Code Section 251-5 K regulations on hours and would not occur between the hours of 8:00 PM and 7:00 AM (excepting Sundays, when no construction activities are anticipated), and will conform to additional applicable Town regulations regarding construction noise generation.

Construction Area Layout

As shown in the **Erosion Control Plan**, the construction entrance (which also be used during the demolition process) will be located on Manor Road, in the same location as the entrance for the

proposed project. Thus, construction-related trucks will use Manor Road to access the site and depart the site area. The construction manager will prohibit use of the Middle Road access for construction-related traffic. Construction workers will park their private vehicles on-site in a designated area in the northern part of the property, or along the south side of Manor Road.

Demolition

The **Demolition Plan** depicts the existing site and notes all of the components that will be removed, including the swimming pool/patio, the small man-made pond, the wooden bridge abutting the pond, the tennis court, various pieces of fencing, the concrete driveway, and the swimming pool propane tank and heater. Insofar as practicable, the construction entrance on Manor Road will be used by vehicles to deliver equipment and to remove the debris, though it may occur that the removal of the concrete driveway, wooden bridge and man-made pond in the southern end of the site would necessitate use of Middle Road.

Construction-Related Operations

The following is a generalized listing and sequence of the ensuing construction phases:

- clearing
- grading
- excavations of the drainage system basins and installation of connecting pipes & leaching pools
- installing the internal roadway foundations and operations area (asphalt paving & curbing, and laying of RCA)
- paving of the parking areas for the office
- laying topsoil and hydroseeding

Note that minimal new construction is involved in the proposed project; no new structures will be built.

Excavation Process and Soil Removal

As noted in **Section 1.4.2**, soil removal from the site during the construction period is expected to result in temporary truck traffic. Assuming 20 trucks per day, based on 40 CY trucks filled with 32 CY per truck, 640 CY per day can be removed from the site. Based on a 5-day work week, it would take approximately 3 weeks to remove this material from the site. Based on a 10-hour day (between 7 AM and 5 PM), there would be approximately 4 trucks per hour leaving the site, and 4 trucks per hour entering the site. Material removed from the site would be transported off-site to other construction industry use facilities. The subject site is within an industrial area and convenient road access to the Long Island Expressway is available. As a result, temporary trucking activities will have a minor impact on roads to/from the site; however, the impact is expected to occur for a 3-week period, between 7 AM and 5 PM, and will be limited to

approximately 8 truck trips per hour. This level of temporary inconvenience is not considered significant given the limited time period of the operation, limited truck trips and limited hours of operation, as well as the industrial nature of the area, and convenient access to major roads for off-site transport.

Erosion Control During Construction

The drainage system discussed in **Section 1.4.2** above will comply with requirements under NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP 0-15-002), and Chapter 275 of the Town Code. Under these requirements, if required, a Storm Water Pollution Prevention Plan (SWPPP) must be prepared and submitted for Town review and approval as a condition to final site plan approval. The SWPPP evaluates the proposed drainage system to ensure that it meets the NYSDEC and Town requirements for treatment and retention of stormwater runoff. The SWPPP must demonstrate that the proposed stormwater management system is sized adequately to ensure that there is no net increase in peak stormwater discharges from a property once developed. Additionally, the SWPPP (if required) will include details of the erosion controls to be employed during construction; these measures are discussed below and shown on the **Erosion Control Plan** and **Erosion Control Details**, and may include: silt fencing, inlet protection, stabilized construction accesses, and soil wetting.

Drainage Plans and a Preliminary Network Diagram and Hydrograph Comparison will be prepared to establish that the SWPPP will ensure that post-development stormwater will be less than pre-development stormwater. The dimensions, materials, and installation for all erosion and sediment control practices are subject to Town review and approval under the site plan review.

Because of the measures implemented under the SWPPP, significant amounts of sediment will not be transported off-site by runoff, so that no significant impact on adjacent sites is expected. However, should any sediment escape from the site, it will be swept back onto the site on (at the least) a daily basis by manual or mechanical means (depending upon the amount of fugitive sediments) under the direction of the construction manager. During the construction process, inspections of the construction site will be regularly performed under the supervision of a qualified professional to ensure that erosion controls are properly maintained.

The construction manager will be responsible for all construction activities, and installation and maintenance of the erosion and sediment controls, and that measures are implemented to prevent/reduce wind-blown dust. Dust controls will involve using an on-site water truck. Water will be provided from the on-site private well, and will be stored for use on-site. Stored water will be used in spray form to wet dry surfaces that may cause fugitive dust during dry periods and wind events. The construction manager will also be responsible for securing approved/permitted carters to remove and dispose of construction wastes and excess soil at approved facilities.

1.5.2 Site Operations

Site operations are described in detail in the revised Part 360 Engineering Report (the "Engineering Report") included in **Appendix C-5**.

With respect to information on the sources, types, amounts and schedule at which such materials are generated, it must be remembered that construction wastes of the types to be handled are not generated on a regular basis, so it is not possible to develop this information. Typically, construction (and public roadway construction in particular) increases in the spring and summer months, so these are the times of the year when construction wastes are generated, so that the proposed facility will operate over more of the day and for more of the workweek than at times of reduced construction.

Typically, incoming waste material is comingled and, estimates of the volumes/weights of individual waste types when received at the site is not possible or recorded. The operations at the facility are intermittent and it is not possible to estimate a daily or monthly storage of material. However, the facility will seek a permit which will allow for a maximum storage of a total of 26,000 cubic yards (CY) of material consisting of 13,000 CY of unprocessed material and 13,000 CY of processed material. Processed material storage will consist of 7,000 CY (approximately 10,500 tons) of RCA, 5,000 CY (approximately 6,500 tons) of processed soil and 1,000 CY (approximately 2,000 tons) of asphalt millings.

Based on the processing equipment proposed to be used, the estimated daily throughputs are as follows:

- Unprocessed concrete, brick, rock, asphalt & fill - processed at a rate of 300 CY/day (450 tons/day)
- Processed RCA - generated at a rate of 500 CY/day (750 tons/day)
- Asphalt millings - generated at a rate of 200 CY/day (400 tons/day)
- Processed soil - generated at a rate of 300 CY/day (390 tons/day)

Storage areas and the square footages of each are depicted on the **Part 360 Permit Plan** included in the Engineering Report. It must be remembered that not all four material piles will be at their maximum sizes at any one time; when the unprocessed material pile is at maximum height, the other three piles will be at low levels, to be filled as the unprocessed pile is processed. Conversely, when the three processed piles are at their maximum size, the unprocessed pile would be at a low level, and must wait for the three processed piles to be sold off and removed, to clear space for more material processing to restore processed material pile height.

The solid waste management permit submission is pending before NYSDEC and awaiting completion of the SEQRA process.

The Engineering Report should be referred to for information pertaining to the operation of the facility and contains all of the information required in the Final Scope for this DEIS.

The operations manager will be responsible for all operational activities on-site during material processing. Measures will be taken prevent/reduce wind-blown dust. Dust will be controlled by use of a water spray, to be provided from the on-site private well and applied during dry periods and on windy days.

1.6 Permits and Approvals Required

As noted in **Section 1.1**, this document ensures that the Town Planning Board is provided with the complete and unbiased information on the project and its anticipated impacts that it will rely upon when taking its "hard look" at the project as required by SEQRA. Once accepted by the lead agency as complete (meaning that the Planning Board deems that the DEIS adequately addresses the issues identified in the Final Scope), this document will be subject to public and agency review, a public hearing, and a subsequent period wherein written public and/or agency comments are accepted. This period is followed by preparation of a Final EIS (FEIS) that addresses the substantive verbal and written comments provided. Upon its review and acceptance of the FEIS, the Town Planning Board will be responsible for the adoption of a Statement of Findings on the application and the information contained in the complete EIS record (now comprised of the DEIS and the FEIS). Each involved agency will prepare its own Findings Statement independently of the lead agency, pursuant to SEQRA, prior to rendering its own decision on the application.

Table 1-2 is a list of the permits and approvals anticipated to be necessary for the proposed project.

Table 1-2
PERMITS AND APPROVALS REQUIRED

Applicable Board/Agency	Permit/Approval Type
Town Planning Board	SEQRA Findings Statement (as Lead Agency)
	Site Plan approval
Town ZBA	Zoning Interpretation (completed)
Town Building Department	Demolition Permit
	Building Permit
	239f review (to SCDPW*)
Town Fire Marshal	Site Plan review
Town Highway Superintendent	Highway Work Permit
RWD	Referral; will use existing private well on-site
SCDHS	Sanitary System review
	Water Supply System review
SCPC*	Referral (completed)
PSEGLI	Electrical Service Connection
NYSDEC	SWPPP approval
	SPDES Permit
	NYCRR Part 360 Permit
	Article 19 State Facility Permit
NYSDOT*	Referral

* SCDPW - Suffolk County Department of Public Works; SCPC - Suffolk County Planning Commission; NYSDOT - New York State Department of Transportation.

SECTION 2.0
NATURAL ENVIRONMENTAL RESOURCES

2.0 NATURAL ENVIRONMENTAL RESOURCES

2.1 Surface and Subsurface Soils

2.1.1 Existing Conditions

Topography

Figure 2-1 depicts the existing topographic configuration of the site's land surface. As can be seen, there are no unique, unusual or significant landforms on the subject site. Generally, the site trends downslope towards the south. Superimposed on this is a natural depression oriented roughly northwest-southeast within the south-central part of the property. The lowest elevations are in the southern end of the property, and higher ones are in the northeast and northwest.

Figure 2-1 shows that the subject site varies in elevation from a high of 63 feet asl, found along the site's northern border, which parallels the south side of Manor Road, to a low of about 36 feet asl, along the site's south border near the Middle Road frontage. Total relief on the site (the difference between the highest and lowest elevations) is 27 feet.

As a result of the on-site slopes, the lower elevation of land contiguous to the south and southwest, and the high permeability of the site's soils (see below), the drainage characteristics of the site are such that no significant impact from runoff occurs on the site or contributes significantly to off-site locations.

Soils

Prior Soil Impacts and Remediation Measures - Refer to **Section 1.3.2** for a discussion of the prior soil impacts and remediation program for the subject site, in relation to its pending Part 360 permit application.

Soils On-Site - The Soil Survey of Suffolk County, prepared by the US Department of Agriculture in 1975, is a useful source of soils information, which identifies soil types resulting from natural deposition and modification, as well as human-induced alterations associated with land use. As shown in **Figure 2-2**, there are four soil types represented on the subject site, as follows:

- CpC - Carver Plymouth Sands, 3-15% slopes; occupies about 2.16 acres/32.27% of the site
- HaB - Haven Loam, 2-6% slopes; occupies about 0.40 acres/6.06% of the site
- RdB - Riverhead Sandy Loam, 3-8% slopes; occupies about 0.41 acres/6.19% of the site
- RdC - Riverhead Sandy Loam, 8-15% slopes; occupies about 3.71 acres/55.48% of the site

The Soil Survey provides brief, general descriptions of each soil type, its geographical distribution and discussions of the type of land use on which each soil type is commonly found, as follows:

Carver and Plymouth Sands, 3-15% slopes (CpC) - These soils are mainly on rolling moraines; however, they are also on the side slopes of many drainage channels on the outwash plains. Individual areas of this mapping unit are large on the rolling topography of the Ronkonkoma Moraine, and in these areas slopes are complex. On the outwash plain, this unit is in long, narrow strips parallel to drainageways. The hazard of erosion is slight to moderate on the soils in this unit. These soils are droughty, and natural fertility is low. In some places, slope is a limitation to use. These soils are not well suited to crops commonly grown in the county. These sandy soils severely limit installation and maintenance of lawns and landscaping shrubs. Almost all of these soils are in woodland.

Haven Loam, 2-6% slopes (HaB) - This soil is on outwash plains and moraines, commonly along shallow, intermittent drainage channels. Slopes are short. In larger areas this soil is mostly undulating. Most areas of this soil are smaller than the areas of Haven Loam 0-2% slopes. The hazard of erosion is moderate to slight on this Haven soil. Management concerns are controlling runoff and erosion and keeping the surface loose and free from crusting. This soil is well suited to all crops commonly grown in the county. It generally is armed the same as adjoining areas of nearly level soils.

Riverhead Sandy Loam, 3-8% slopes (RdB) - This soil is on moraines and outwash plains. It generally is on areas along shallow, intermittent drainageways. Slopes generally are moderately short, but large areas on moraines are undulating. The profile of this soil is similar to the one described as representative of the series, though in cultivated areas this soil is likely to be 2 to 3 inches shallower to coarse sand and gravel, and the surface layer is likely to contain a slightly larger amount of gravel. The hazard of erosion is moderate to slight on this Riverhead soil. The main concerns of management are controlling runoff and erosion and providing adequate moisture. This soil is well suited to crops commonly grown in the county, and it is used extensively for this purpose.

Riverhead Sandy Loam, 8-15% slopes (RdC) - This soil is 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 Riverhead soil. Controlling erosion is the main concern of management. This soil is limited by droughtiness and by the difficulty of applying irrigation water. This soil is suited to crops commonly grown in the county.; however, the hazard of erosion reduces its usefulness for farming. Most areas of this soil are in trees and brush. 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.

As shown in **Figure 2-2**, the majority of the site (i.e., the much of the central and northern portions) are underlain by the RdC soil type, with the HaB soil in the site's northwestern corner. The southern and southwestern parts of the property have the CpC soils, and the RdB soils are found along the site's western border. Generally, the existing residence, pool/patio, tennis court and garage/barn occupies those parts of the site underlain by the RdC and CpC soils.

Table 2-1 provides a list of soil features that should be considered when developing the site, and those characteristics of each soil type that may limit development. A review of the table indicates that the soils present have generally acceptable characteristics with respect to their engineering properties. With respect to potential soil-related restrictions or impediments, the HaB and RdB soils generally present only slight to moderate limitations, all of which are related to their slopes. The CpC and RdC soils present moderate to severe limitations related to their slopes, with the RdC soil also presenting limitations with respect to its characteristic sandy surface layer. However, such limitations can be overcome by grading/filling, substitution of other soils or avoidance of these soils.

The table does not indicate that these soils present any limitations for leaching of stormwater, as the only limitations noted are related to the slopes. Finally, site inspections conducted for this document did not reveal the presence of significant or long-lasting ponded stormwater on the site and any exposed soils appear to be sandy.

Agricultural Soils - Reference to the Cornell University Geospatial Information Repository (CUGIR) at: *http://cugir.mannlib.cornell.edu* indicates that the subject site is not within an Agricultural District, as established by the NYS Department of Agriculture and Markets. However, two of the site's soils (labeled CpC and RdB; see **Figure 2-2**), are classified within Capability Unit I or II, and so are considered "Prime" agricultural soils by Suffolk County. An estimated 2.57 acres of the site can be considered Prime agricultural soils, which represents about 38.46 % of the property. This classification is significant with respect to the assessed value of farmland, but does not include restrictions on the use of soils so classified.

According to the Soil Survey, the site contains two soils that are well-suited for farming, specifically HaB and RdB; to a lesser extent RdC has some restrictions for farming. Approximately 2.16 acres contain CpC soil, which presents severe limitations for agricultural use.

The subject site is currently developed with a single-family home, garage/barn, swimming pool/patio and tennis court. The presence of these features, along with the minimal size of the lot for farming purposes, the presence of some soils that have limitations for potential farm use (e.g., the CpC soils), the presence of moderate and steep slopes, and the property's industrial zoning, greatly restrict the potential use of the site for any agricultural purposes.

Table 2-1
SOIL FEATURES AND LIMITATIONS

Parameter	**Carver and Plymouth Sands** (CpC)	**Haven Loam** (HaB)	**Riverhead Sandy Loam** (RdB)	**Riverhead Sandy Loam** (RdC)
Estimated engineering properties:				
Depth to seasonal high water table	>4 feet	>4 feet	>4 feet	
Permeability (in./hour)	>6.3	0 to 19 in. depth: 0.63-2.0 19 to 28 in. depth: >2.0 28 to 55 in. depth: >6.3	0 to 32 in. depth: 2.0-6.3 32 to 65 in. depth: >6.3	
Available moisture capacity (in./in. of soil)	0 to 22 in. depth: 0.03 - 0.04 22 to 60 in. depth: 0.02 - 0.04	0 to 19 in. depth: 0.14-0.20 19 to 28 in. depth: 0.03-0.14 28 to 55 in. depth: 0.01-0.04	0 to 32 in. depth: .11-0.15 32 to 65 in. depth: 0.02-0.07	
Soil features affecting:				
Highway location	Poor trafficability; extensive cuts and fills likely	Very shallow cuts have nonuniform subgrade in places	---	Extensive cuts and fills likely
Embankment foundation	Strength generally adequate for high embankments	Strength generally adequate for high embankments; slight settlement		
Foundations for low buildings	Low compressibility; large settlement possible under vibratory load	Low compressibility		Low compressibility; moderate and moderately steep to steep slopes
Irrigation	Very low available moisture capacity; moderate and moderately steep to steep slopes	No unfavorable features	Moderate to rapid water intake; moderate available water capacity	Moderate to rapid water intake; moderate available water capacity; moderate and moderately steep to steep slopes
Limitations for:				
Sewage disposal fields	Slight to moderate; slopes in places	Slight		Moderate; slopes
Streets and parking lots	Moderate to severe; slopes	Moderate; slopes		Severe; slopes
Lawns and landscaping	Severe; sandy surface layer	Slight		Moderate; slopes
Paths and trails				Slight
Picnic/play areas				Moderate; slopes
Athletic and intensive play areas		Moderate; slopes		Severe; slopes

2.1.2 Anticipated Impacts

Topography

As shown in the **Grading & Drainage Plan**, the proposed project will regrade most of the subject site. Except for shallower areas along the site's northern and western property lines and in the northwestern corner, the entire northern half of the site will be regraded for the proposed stockpile areas and crushing operations. In the southern half of the property, areas around the residence will remain undisturbed, as well as the southeastern and southwestern corners of the site where the existing wooded areas will be retained largely in-tact. The central part of the site between the existing residence and the industrial operation will be regraded for installation of subsurface drainage.

Considering the small size of the site and the absence of any significant topographic features, it is not expected that any significant impacts to such resources, or impacts resulting from such characteristics, would occur. Erosion control measures to be implemented during grading operations would forestall potential impacts from sediment movement and deposition (see **Erosion Control Plan** and **Erosion Control Details**).

Soils

Prior Soil Impacts and Remediation Measures - Refer to **Section 1.3.2** for a description of the remediation program to be performed on the site in order to obtain the required Part 360 permit for the project. It is expected that conducting this effort will fully address the prior, minor soil impacts that had occurred on the site. Further, the remediation program will be subject to detailed review and approval of the NYSDEC, its implementation will be overseen by the NYSDEC, and the NYSDEC will maintain jurisdiction until such time that it signs off on the completed remediation program. This oversight would ensure that any impacts to the soils on-site will be properly and fully addressed.

Soils On-Site - Based on the information presented in **Table 1-1**, an estimated 4.52 acres of the site will be subject to clearing for the project. Much of the site is presently disturbed with cleared/barren areas, site driveways and the existing house and barn. Disturbed and cleared areas will be graded to accommodate the material stockpiles and crushing equipment, as well as the site access, parking and subsurface drainage systems. Soil disturbance will be required in the north part of the site for the purpose of these installations, and to a lesser extent on the south part of the site, where the existing house will remain as an office, and wooded areas will remain in-tact.

Based on review of **Figure 2-2** and the **Grading & Drainage Plan**, it is anticipated that the majority of grading would occur on the RdC soils, with a lesser amount of impact to the CpC soil type. As the HaB and RdB soils are found along the property lines and in the lower southeastern and southwestern portions, only minimal amounts of grading will take place on these soil types.

While the project's internal roadways will not be paved, they will be covered with RCA. The area used for materials stockpiling and crushing/screening operations will be bare soil. In order to minimize potential impacts to this soil area, all incoming materials will first be properly inspected (per applicable Part 360 permit procedures and requirements) for the absence of contamination and hazardous components. Only after verification has been made will these materials be accepted and unloaded.

The information on engineering/development properties of soils in **Table 2-1** indicate that all four of the soils present display good leaching characteristics, and so would be suitable to support the proposed on-site drainage system.

Agricultural Soils – As the site is not presently in an agricultural use, no impacts to such a use would occur. The project will foreclose the possibility of using the site for agricultural purposes, at least until such time that the proposed project ceases operations and is removed. At such time, the facility would be closed in conformance with NYSDEC procedures contained in 6NYCRR Part 360.21, as outlined in the Part 360 Engineering Report **(Appendix C-4)**.

The project will impact a portion of the estimated 2.57 acres of Prime agricultural soils, as these soils (CpC and RdB) occupy parts of the site that will be regraded, particularly in the northern part (RdB) and central part (CpC) of the property. Large areas of RdB and CpC soils will remain unaltered in the southwest and southeast parts of the site. The central and north parts of the site will be regraded, and some soil will be removed from the site.

It is noted that the site topography is not conducive to agricultural use. As noted in the Final Scope: *"The site contains some soils that are well-suited for farming, specifically Haven loam (HaB) and Riverhead sandy loam (RdB) soils, and to a lesser extent Riverhead sandy loam (RdC) soils which are less suited for this purpose due to slope. Approximately 2.1± acres or 31± percent of the 6.68-acre site contains Carver and Plymouth sands (CpC) which have severe limitations for agricultural use."* The Final Scope further notes the following: *"The Subject Property is currently developed with a single-family home, barn, swimming pool and other accessory structures. The presence of these features, along with the minimal size of the lot, the presence of some soils with severe limitations for use in agriculture (CpC soils), the presence of some moderate and steep slopes, and the property's industrial zoning, place limitations on its potential use for any meaningful agricultural activities in the future."* This recognition of the limitations of the steep slope areas is supported herein.

Existing farm fields to the north and west of the site are on flatter ground. The site's elevation change from 63 feet asl along the site's northern border to a low of about 36 feet asl, along the site's south border near the Middle Road frontage. Total relief on the site is 27 feet. Slopes in the east-central part of the site range from 5-10 percent, and steeper slopes in the range of 10-15 percent are present on the west-central part of the site. These slopes span all of the soil types on the site, and are a constraint to agricultural use. This limitation is a recognized

restriction on the viability of the site for farm use, and could be a reason why the site has not been put to such use while other more suitable sites in the area have been historically farmed.

While the proposed project will result in the loss of potential agriculturally suitable soils on the central and north parts of the site, the impact is limited given the non-conducive topography character of the site in relation to farm use. The applicant would consider making surface soil available for farm use at another location if feasible.

Erosion and dust control are planned as part of the project and will help to ensure that soils intended to remain on-site will be retained. Erosion control measures to be implemented during the construction phase are discussed in detail in **Section 1.5.1**, and are expected to include measures recommended in the NYSDEC Technical Guidance Manual, such as:

- The construction process will begin with establishment of flagged clearing limits, followed by installation of the erosion control measures;
- Silt fence, storm drain inlet protection, hay bales and good housekeeping procedures will be used;
- Construction equipment and vehicles will be parked and loaded/unloaded within the site;
- "Rumble strips" at the construction entrance on Manor Road will prevent soil on truck tires from being tracked onto the local roads; and
- The drainage system will provide permanent stormwater controls once construction is completed.

Dust controls during both the construction and operational phase, will involve using an on-site water truck. Water will be provided from the on-site private well, and will be stored for use on-site. Stored water will be used in spray form to wet dry surfaces that may cause fugitive dust during dry periods and wind events.

2.1.3 Proposed Mitigation

- The **Grading & Drainage Plan** presents the overall site grading program and the drainage system proposed; the project will require Town Division of Planning review and Planning Board approval prior to implementation.
- Soils will be retained on-site to the maximum extent practicable. Soil from areas that are excavated such as the yard grading area and for subsurface leaching pool installation will be used to backfill the pool/patio area and man-made pond, and will be generally incorporated back into the site to provide suitable grades and topsoil in areas to be landscaped. Some off-site soil removal is necessary to achieve the grading plan.
- Erosion at the site and sedimentation at downslope locations may occur during the construction phase of the project. These potential impacts will be overcome by implementing erosion control measures and installing proper drainage facilities discussed in the SWPPP, to be prepared for the project.

- Dust control measures will be available on-site, including monitoring for dust conditions and use of a water truck to spray/wet excessively dry soils prone to wind transport.
- If clean quality agricultural topsoil must be removed from the site, efforts will be made to have it reused as a growing medium, topsoil, or other productive use elsewhere.

2.2 Surface Water and Groundwater

2.2.1 Existing Conditions

Surface Water Conditions and Drainage

There are no natural surface water bodies on the subject site. There is a small (approximately 0.01 acres) decorative pond on the southern part of the site, on the eastern side of the main access drive to the residence. This feature is entirely man-made and does not provide any ecological or water resource value; it is not a mapped freshwater wetland and is not regulated as such by the Town or NYSDEC. The nearest natural surface water is the Peconic River, which flows in a roughly west-to-east direction approximately 3,000 feet to the south of the site. **Figures 2-3 and 2-4** depict the locations of the freshwater and tidal (i.e., marine/saltwater) wetlands in the vicinity, as designated by the NYSDEC and National Wetland Inventory (NWI), respectively. As can be seen, there are no freshwater wetlands proximate to the site.

Figure 2-5 shows that the subject site is designated within FEMA Flood Hazard Zone X, which indicate that the site is in an area having a 1% or less probability of experiencing a flood, on an annual basis.

There are no known drainage facilities on the site as it currently exists. Minimal impervious surfaces are present for existing buildings. Stormwater from these impervious surfaces naturally infiltrates through soils on the site.

Groundwater Conditions

General Groundwater Conditions - **Figure 2-6** shows that the water table in the vicinity of the subject property is at an elevation of about 22 feet asl. As the overlying ground surface of the subject site varies between 36 and 63 feet asl, the depth to the water table beneath the site is between 14 and 41 feet. Based on the configuration of the contour lines, the subject site likely overlies the groundwater divide of the North Fork, so that groundwater would flow downgradient perpendicular to lines of equal elevation. As a result, and as shown in the figure, shallow groundwater (i.e., in the Upper Glacial aquifer) beneath the site would be expected to generally flow toward the northeast.

Sole Source Aquifer - The site, as with all of Long Island, overlies a series of vertical groundwater aquifers, all of which are utilized as a source of potable drinking water. This aquifer system has been designated as a "Sole Source Aquifer" for the region by the United States Environmental Protection Agency (EPA). The following has been taken from the EPA website, at:

http://www.epa.gov/dwssa/overview-drinking-water-sole-source-aquifer-program#What_Is_SSA

The Sole Source Aquifer program is authorized by Section 1424(e) of the Safe Drinking Water Act of 1974 (Public Law 93-523, 42 U.S.C. 300 et. seq), which states:

"If the Administrator determines, on his own initiative or upon petition, that an area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health, he shall publish notice of that determination in the Federal Register.

After the publication of any such notice, no commitment for federal financial assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the Administrator determines may contaminate such aquifer through a recharge zone so as to create a significant hazard to public health, but a commitment for federal assistance may, if authorized under another provision of law, be entered into the plan or design the project to assure that it will not so contaminate the aquifer."

The goal of the Sole Source Aquifer program is to raise public and governmental awareness of the existence and significance of those aquifers that serve as the sole sources of potable water throughout the nation. While there exists no specific Sole Source Aquifer protection plan, the Sole Source Aquifer designation serves as a basis for subsequent state and local legislation that has led to such planning efforts, and the source water protection programs arising therefrom.

Special Groundwater Protection Area (SGPA) - The project site is located within the Central Suffolk SGPA (North Sector). As defined under NYS law (Article 55 of the NYS ECL), a "Special Groundwater Protection Area" is defined as:

"A recharge watershed area within a designated sole source aquifer area contained within counties having a population of one million or more which is particularly important for the maintenance of large volumes of high quality groundwater for long periods of time. For the purposes of this article, each "special groundwater protection area" shall be classified as a critical area of environmental concern as used under article eight of this chapter (Section 55-0107 ECL Article 55). The Long Island SGPA Plan was prepared by the Long Island Regional Planning Board in 1992 in order to study land use and groundwater quality within the several SGPAs on Long Island.

The SGPA Plan makes specific recommendations for development within each SGPA, as well as general recommendations which are applicable to all of the identified SGPAs. Where restrictions of the Central Pine Barrens Comprehensive Land Use Plan duplicate those of the SGPA Plan, the former supersede those of the latter.

Chapter 2 of the SGPA Plan provides general recommendations that pertain to all SGPAs on Long Island. The chapter provides a regional overview of groundwater resources on Long Island and discusses opportunities for protection and enhancement of groundwater quality. The plan then outlines general policy considerations, watershed rules and regulations, and best management practices (BMP). The primary focus of the plan is the use of existing local land use regulations and sanitary codes to manage development, and to reduce residential densities to a level which is environmentally acceptable. Protection of open space through clustering, rezoning and outright acquisition is also identified as an important means of protecting the quality of groundwater recharge. The plan also discusses the use of existing regulations to control the discharge of hazardous materials from industrial and commercial development.

The Policy Considerations section of the chapter sets a goal of non-degradation of the aquifer, recognizing that some tradeoffs will be necessary based on economics or other social considerations. The plan also discusses the regulation of STPs within the SGPA, BMPs for limiting fertilizer and pesticide use in landscaped areas, and preservation of open space and other land use considerations. The two primary groundwater concerns associated with development on Long Island are nitrogen loading due to on-site disposal of sanitary waste effluent, and lawn fertilization. As the project site does not have access to an off-site sewage disposal system, the discussion of STPs is not relevant to the proposed project. However, the need to maintain both groundwater and surface water quality can be achieved by restricting fertilizer use and by conforming to SCSC Article 6 requirements. BMPs discussed include limitations on clearing, fertilization, irrigation and the reduction in the overall use of landscaped areas. Specific management practices which can be employed on the subject site will be discussed in the impacts section of this document.

Chapter 3 of the SGPA Plan inventories the characteristics of each individual SGPA, and provides recommendations based on issues, problems and opportunities which are specific to each SGPA. With respect to the Central Suffolk SGPA North Sector, the Plan indicated the following:

OPPORTUNITIES

The northeast sector of the Central Suffolk SGPA contains a continuous belt of farmland that extends from Wading River on the west to the Riverhead-Southold town boundary on the east, and from Route 25 on the south to Sound Avenue on the north. With selective acquisitions that belt could be linked with the farm areas in western Southold. Over 3,000 acres of productive agricultural land have been protected from development, primarily though the Suffolk County Farmland Development Rights Program. There is an opportunity to expand the Farm Preserve through continued purchase of development rights, albeit on a reduced scale, and through the transfer of development rights to sites outside the SGPA. The use of mandatory clustering with the reservation of at least half of the property for agriculture or open space could allow further expansion of the protected area at minimal cost. Such clustering could preserve half of the farmland while allowing development that meets Health Department regulations to occur on the remainder.

It would be most desirable to transfer the development rights of properties that are surrounded by protected farmland to areas north of Sound Avenue or around the hamlet of Riverhead. Admittedly, farming activities have been a source of groundwater contamination, however, there is an opportunity to employ modern best management practices that reduce the reliance on agricultural chemicals and lessen the threat to groundwater.

In addition to the Grumman complex, there are a series of small groupings of industrial uses throughout the SGPA in Riverhead. The Town 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 Route 25 and 58. A planned industrial area that preserves some open space and is ultimately tied into the Riverhead sewer system would confine industrial growth to a much smaller part of the Town. There is a large industrial use in Aquebogue that will continue to exist, but other smaller uses in the SGPA could be phased out and the land reused for residential purposes.

Most of the commercial development in Riverhead is outside or at the periphery of the SGPA, and could be confined to present locations. There are some commercial services located at the end of the Expressway, and the edge of the Wading River business district is in the SGPA. There are also small business areas in Jamesport and Aquebogue, and a few neighborhood or highway commercial establishments on Sound Avenue, Middle Road and Route 25. In western Southold, there is extensive commercial development south of the railroad tracks in Mattituck and a small cluster of commercial buildings on Aldrich Land and Route 25 in Laurel. The siting of new business development at locations outside the SGPA or within the boundaries of existing commercial areas within the SGPA could help to maintain the integrity of the agricultural and open space lands that protect the groundwater and surface waters in this sector.

Recommendations:

- The Town of Riverhead should reduce the amount of industrially zoned land and should concentrate such development in existing industrial areas at the end of the Long Island Expressway.
- The Towns of Riverhead and Southold should review their zoning ordinances and amend them as necessary to preclude the expansion of commercial activities beyond the limits of those SGPA areas where such activities currently exist.

The Plan analyzed the existing land use patterns and zoning within each SGPA, and predicted the saturation density which would be permitted under the existing Town codes. Soils, vegetation, hydrogeologic patterns and other existing conditions were also inventoried. This information was then utilized to develop a proposed land use plan map for the sector which depicts areas within the SGPA according to the intentions and goals of the Plan.

The project site is shown on the SGPA Plan as recommended for low-density residential use (see **Figure 2-7**), which reflects the use of the site as it existed at the time the SGPA Plan was prepared in 1992 (see **Figures 1-2g and 1-2h**).

Site Specific Groundwater Study – Consistent with the Final Scope, an on-site groundwater monitoring program was completed. The full investigation is contained in **Appendix D** and summarized below. (Note: appendix, figure and table references pertain to the report contained in **Appendix D**.)

1.0 INTRODUCTION AND PURPOSE

This study has been conducted to assess groundwater conditions at the subject property in accordance with the Groundwater Study Work Plan dated November 20, 2020 (Appendix A). This study was required as part of the Final Scope dated February 25, 2020 for the Draft Environmental Impact Statement (DEIS) pertaining to the subject site. The Final Scope provides an outline for the DEIS which assesses the potential impacts related to the proposed development of the subject property.

The subject property is located at 1792 Middle Road, Calverton, New York and consists of a 6.68-acre industrially zoned parcel which currently contains a residence and residential accessory structure. The subject property, zoned Industrial A, is proposed to be converted to an asphalt and concrete crushing and screening business. As part of this redevelopment, the existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage will be converted into office and storage space.

Based on the requirement contained in the Final Scope dated February 26, 2020, the components of the investigation included the following:

- Installation of four (4)[1] groundwater monitoring wells consisting of one (1) upgradient and three (3) down gradient monitoring wells and groundwater sampling in order to supplement the existing on-site NYSDEC groundwater monitoring network.
- Plot location of each monitoring well and determine relative horizontal elevation for the purpose of preparing a groundwater contour map which will be included in the groundwater monitoring report.
- Collect groundwater samples from two (2) monitoring wells (one upgradient and one down gradient) located on the subject property using low-flow methodology.
- Analyze two (2) groundwater samples for the presence of volatile and semi-volatile organic compounds pesticides, herbicides, metals, 1,4-dioxane and perfluorinated compounds (PFOS-PFOA).

[1] The Final Scope required three (3) wells. NPV proposes one (1) additional well to assist in determining direction of groundwater flow.

The protocol used to direct this investigation were based upon the following documents: the New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 375 and NYSDEC Division of Water TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. The laboratory analyses were provided by Long Island Analytical Laboratories, Inc., a NYS and ELAP Certified Laboratory. The following sections detail the subject property and surrounding area characteristics, sampling program, quality assurance protocol, laboratory analysis methodology and laboratory results.

2.0 SAMPLING AND ANALYSIS PROGRAM (SAP)

2.1 MONITORING WELL INSTALLATION

Four (4) groundwater monitoring wells were installed on the subject site. The wells include one (1) upgradient monitoring well located in the southwest portion of the property and three (3) down gradient monitoring wells located in the north, northeast and southeast portions of the property. The location of each of these monitoring wells are depicted on Figure 1.

Each monitoring well was constructed with a two (2) inch, ten (10) foot schedule 40, PVC 20 slot screen with sufficient riser to bring each well to approximately two (2) feet above surface grade. The screen zones were set to a depth of approximately seven (7) feet below the water table which was encountered at depths ranging from nineteen (19) to thirty-five (35) feet below ground surface. The annular space around the screen zone and riser were backfilled with #2 Morie sand gravel pack to approximately two (2) feet above the screen zone which was followed by a two (2) foot thick bentonite seal. The remaining annular space above the bentonite seal was backfilled with clean sand to two (2) feet below surface grade and followed by a concrete cap. The PVC riser extending above surface grade was been protected by the installation of a capped steel casing which was fitted with a lock for security purposes.

Following installation, each well was developed using a submersible pump until stabilization of selected water quality indicators which included pH, specific conductance, dissolved oxygen, oxidation-reduction potential, and temperature as well as a turbidity of 50 NTU's, were achieved. This resulted in the removal of approximately five (5) to ten (10) gallons of water from each monitoring well.

2.2 GROUNDWATER SAMPLING

At a minimum of twenty-four (24) hours after development, each newly installed well was sampled using "low flow" methodology. Under the "low-flow" procedure, each well was

purged with a variable flow submersible pump at a rate of 0.4 liter per minute (L/min) until stabilization of selected water quality indicators which included pH, specific conductance, dissolved oxygen, oxidation-reduction potential, and temperature as well as a turbidity of 50 NTU's were recorded. Once these criteria were met, a sample was collected directly from the pump and placed in the appropriate sample containers. A dedicated sampling hose was used for each well to ensure sample integrity and eliminate the potential for cross contamination. In addition, the sampling pump was decontaminated to further eliminate the potential for cross contamination.

2.3 LABORATORY SAMPLE LOCATION AND FREQUENCY

All groundwater samples were analyzed for the presence of volatile and semi-volatile organic compounds, pesticides, herbicides, metals and 1,4-dioxane and perfluorinated compounds (PFOS-PFOA). All samples submitted for analysis were containerized and labeled for identification purposes. The labels were coded to correspond to the location from which the samples were secured. Table 1 provides an index of how the samples were coded during labeling.

Table 1
Sample Identification

Sample Location	Sample ID Code
Sample collected from the upgradient monitoring well located in the southwest portion of the property.	MW-1
Sample collected from the downgradient monitoring well located northeastern portion of the property.	MW-3

3.0 MONITORING WELL SURVEYING AND GROUNDWATER LEVEL COLLECTION

Each groundwater monitoring well present on the subject property was surveyed for vertical elevation and horizontal location. Elevation data has been used in conjunction with groundwater level data in order to determine the direction of groundwater flow underneath the property and generate a site-specific groundwater contour map. The depth to groundwater at the subject property ranges from 19.46 feet to 34.95 feet below ground surface (bgs). Groundwater at the subject property was determined to flow generally towards the northeast, consistent with regional water table maps cited in the DEIS. Groundwater measurement and elevation data is presented in Table 2. Groundwater contours and the direction of groundwater flow are depicted on Figure 2.

Table 2
Monitoring Well Depth to Groundwater and Elevations

Monitoring Well	Depth to Water	Elevation	Groundwater Elevation
MW-1	24.51	43.8	19.29
MW-2	28.43	47.6	19.17
MW-3	34.95	54.0	19.05
MW-4	19.46	38.8	19.34

Notes: All groundwater and elevation measurements are referenced from ground surface.
All groundwater elevations are referenced above mean sea level.

4.0 LABORATORY ANALYSIS

4.1 ANALYTICAL TEST METHODS

Groundwater Sample Analysis

All of the groundwater samples were analyzed for the presence of volatile organic compounds via USEPA Test Method 8260, semi-volatile organic compounds via USEPA Test Method 8270, 1-4 dioxane using USEPA Test Method 522, inorganic compounds (metals) via USEPA Test Method 6010, pesticides via USEPA Test Method 8081, herbicides via USEPA Test Method 8151 and perfluorinated compounds (PFOS-PFOA) via USEPA Test Method 533.

4.2 ANALYTICAL RESULTS

Groundwater Sample Results

No volatile organic compounds, pesticides or herbicides were detected in either of the groundwater samples collected. Only four (4) semi-volatile organic compounds were detected in the groundwater samples collected but all were found to be below their respective NYSDEC TOGS 1.1.1 Ambient Water Quality Standards (AWQS). Five (5) metals were detected in the water samples collected but only the detection of manganese in both MW-1 and MW-2 were found to exceed their NYSDEC TOGS 1.1.1 AWQS of 0.3 mg/l. Manganese is typically found in native Long Island groundwater.

With regard to the emerging contaminants 1,4-dioxane, Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA), neither 1,4-dioxane or PFOS were detected in either sample collected from MW-1 and MW-3. However, PFOA was only detected in the sample collected from MW-1 at a concentration of 2.89 nanograms per liter (ng/l) which is below the Maximum Contaminant Level (MCL) of 10 ng/l established in 2020 by New York State.

The groundwater sample results are summarized in **Table 3**. The laboratory analysis sheets (NYS ASPA) as prepared by Long Island Analytical Laboratories are presented in **Appendix B** of this document.

Table 3
Groundwater Analytical Results

Constituents	MW-1	MW-3	1.1.1 T.O.G.S
Volatiles	**None Detected**		
Pesticides	**None Detected**		
Herbicides	**None Detected**		
Semi-volatile	**ug/l**	**ug/l**	**ug/kg**
1,4-Dioxane	ND	ND	1*
4-Nitrophenol	5.24	ND	NS
Diethyl phthalate	13.6	ND	50
N-Nitro-di-n-propylamine	8.48	ND	NS
Metals	**mg/l**	**mg/l**	**ug/l**
Calcium	4.98	25.6	NS
Magnesium	1.05	4.14	35
Manganese	**0.92**	**0.69**	0.3
Potassium	2.29	3.68	NS
Sodium	5.42	7.92	20
PFOS/PFOA	**ng/l**	**ng/l**	**ng/l**
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	10*
Perfluorooctanoic Acid (PFOA)	**2.89**	ND	10*

Notes: ND – Non-Detect; NS – No Standard
ug/kg – micrograms per kilogram; mg/kg – milligrams per kilogram; ng/l – nanograms per liter
Bold indicates elevated detection.
Bold and shaded identifies exceedance of NYSDEC TOGS 1.1.1 guidance value.
*- The standards provided are not listed under NYSDEC TOGS 1.1.1. The Maximum Contaminant Levels (MCL) were adopted by New York State and announced by Governor Cuomo on July 309, 2020

6.0 SUMMARY AND CONCLUSION

This study has been conducted to assess groundwater conditions at the subject property in accordance with the Groundwater Study Work Plan dated November 20, 2020. This study was required as part of the Final Scope for the DEIS pertaining to the project site. The sampling and analysis plan consisted groundwater gauging, sampling and quality testing using analytical test methods consistent with requested parameters and review regulatory action levels/guidance values. The following presents the results of this investigation.

1. The depth to groundwater at the subject property ranges from 19.46 feet to 34.95 feet below ground surface (bgs). Groundwater at the subject property was determined to flow generally towards the northeast.

2. No volatile organic compounds, pesticides or herbicides were detected in either of the groundwater samples collected. Only four (4) semi-volatile organic compounds were detected in the groundwater samples collected but all were found to be below their respective NYSDEC TOGS 1.1.1 Ambient Water Quality Standards (AWQS). Five (5) metals were detected in the water samples collected but only the detection of manganese in both MW-1 and MW-2 were found to exceed their NYSDEC TOGS 1.1.1 AWQS of 0.3 mg/l. Manganese is typically found in native Long Island groundwater.

   With regard to the emerging contaminants 1,4-dioxane, Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA), neither 1,4-dioxane or PFOS were detected in either sample collected from MW-1 and MW-3. However, PFOA was only detected in the sample collected from MW-1 at a concentration of 2.89 nanograms per liter (ng/l) which is below the Maximum Contaminant Level (MCL) of 10 ng/l established in 2020 by New York State.

   Based on these results, no significant groundwater quality impacts are present that have resulted from on-site activities or conditions. With regard to manganese this inorganic compound is typically found in the sedimentary deposits found on Long Island and the recorded detections are suspected to have originated from underlying natural conditions. With respect to PFOA, this detection was in the upgradient well, and therefore is expected to have originated from an upgradient, off-site source. Further this compound was detected at a concentration of 2.89 ng/l as compared to an MCL of 10 ng/l. Consequently, this detection does not represent a significant water quality impact.

Groundwater at the subject property has been evaluated accordance with standard practice for the industry as well as the DEIS Final Scope dated February 25, 2020 and the Groundwater Study Work Plan dated October 30, 2020. This Groundwater Study addresses only the specific areas of the site warranting further analysis and can only provide conclusions regarding the groundwater quality in those specific areas tested. This groundwater study is limited to the evaluation of on-site conditions at the time of completion of the field sampling program.

As noted above and in **Appendix D**, groundwater flow is confirmed to be toward the northeast, based on on-site wells and groundwater elevations. Groundwater quality is generally good to excellent, with no VOCs, pesticides or herbicides detected. Low level SVOCs were detected, but these were below Ambient Water Quality Standards. Manganese was detected, but this is a naturally occurring metal in Long Island groundwater. PFOA was detected in the upgradient well, indicating an off-site source; however, this detection was less than the NYS Maximum

Contaminant Level. Groundwater flow direct was confirmed through this study, and no significant adverse water quality impacts were identified in existing groundwater samples from the site.

Agency Coordination – Agency permits and approvals are summarized in **Section 1.6** and **Table 1-2** of this document. The NYSDEC reviewed and approved the sampling work plan for the Site Characterization summarized in **Section 1.2.1**. of this DEIS. The review of the investigation and Part 360 engineering report is pending. SCDHS is involved in review of the site plan for proper water supply and sanitary disposal. The subject site is not within the service area of the Suffolk County Water Authority, therefore no coordination with this entity is needed. The site is currently served by a private well and private water supply is proposed for the proposed project, therefore no coordination is needed with the Riverhead Water District.

2.2.2 Anticipated Impacts

Surface Water Conditions and Drainage

Provisions are made for stormwater management and drainage on the subject site. The project will not adversely impact any significant surface water resources; the existing small (0.01-acre) pond is a man-made decorative feature that has not been maintained. It does not provide any surface water value or functions, so that its planned removal would not reduce surface water resources.

Generally, the primary source of such an impact would be from the escape of stormwater runoff from a site to a surface water resource (e.g., a pond/wetland, a creek or river, etc.). But, as noted above, there are no surface water bodies in the vicinity that could be impacted by runoff from the site. Additionally, the project's drainage system will provide enough capacity to retain all stormwater runoff on-site based on a 2-inch design storm, so that runoff generated on the site will be recharged on-site.

It is expected that the stormwater runoff control features to be implemented during and after the construction proves (associated with the SPDES General Permit, and contained in the SWPPP; see **Sections 1.4.2, 1.5.1 and 2.1.2**) will preclude the potential for site-generated runoff impacting the site or adjacent, downslope areas. Erosion control measures outlined in **Section 1.4.2** will be implemented at part of the proposed construction. Dust control measures outlined in **Section 1.5.2** will also be implemented at the time of construction.

Groundwater Conditions

General Groundwater Conditions - In conformance with Town requirements and subject to Town engineering review and approval, all stormwater runoff generated on the property from a 2-inch rain event will be handled within an on-site drainage system. This conformance would ensure that no significant potential for adverse impact from uncontrolled runoff would occur either on the site or on adjacent properties.

All wastewater generated on the site will continue to be treated and recharged on-site, in the existing septic system serving the former residence (to be converted for office use). Based on the application of the wastewater design criteria associated with SCSC Article 6, the amount of wastewater generated by the proposed project will be similar to that of the prior residential use (328 gpd vs. 300 gpd), so that no significant change in the amount to water supplied to or recharged on the site would occur. The site is within Groundwater Management Zone III, which has an allowable flow of 300 gpd/acre per Article 6 of the Suffolk County Sanitary Code. For the 6.68 acre site, the allowable flow is 2,004 gpd. The design flow of the project is 328 gpd, which is 1,676 gpd less than the allowable flow. As a result, no water quality impacts are expected with regard to density or nitrogen load.

As described above, the depth to the water table on-site is between 14 and 41 feet. This vertical separation, even at its minimum, is expected to be sufficient to allow for the proper operation of the subsurface leaching pools of the drainage and septic systems.

In this way, no significant change in the amount of recharge to groundwater from either runoff or the septic system will occur, so that the existing elevation of the water table beneath the site would not significantly change, and the direction of groundwater flow would not change from its current orientation.

Sole Source Aquifer - The proposed project would not contravene the intent or goals of the Sole Source Aquifer program, as it would not cause a significant change in the volume of water recharged on the site, nor would it cause any significant change in the nature or content of that recharge. That is, the project will use the existing septic system on the property (which had served the single residence) to serve the needs of the project's limited number of employees. Further, since the change on the type of usage would not be accompanied by a significant change in the number of site occupants, there would be no substantial change in the amount of water consumed on or recharged from the site.

Special Groundwater Protections Area (SGPA) - The project site is within one of the "small groupings of industrial uses" in the SGPA in Riverhead, as noted in the SGPA Plan. However, based on the amount and distribution of industrially-zoned land in the area at the end of the Long Island Expressway (LIE; see **Figure 3-2**), this area has not experienced any of the rezonings to another zoning type that have been approved by the Town of Riverhead in recent years. This inactivity with respect to ending industrial use in this area may suggest that the Town feels that such a use in this location is appropriate, despite the recommended use in the Plan (see below). Additionally, this location is near the periphery of the SGPA boundary, so that the proposed project would not affect the preservation of the preferable, lower-intensity uses such as residential use, in the interior portions of the SGPA. Further, by allowing the proposed industrial use on industrially-zoned land lying in an area established with industrial uses, would allow the integrity of the agricultural and open space areas (as well as the associated surface and ground waters) nearby to be maintained.

The SGPA Plan recommends that the Town reduce the amount of industrially-zoned land in certain types of areas, and should concentrate such development in existing industrial areas at the end of the LIE. The subject site is within an area that the Town may choose to consider for rezoning, but such an action has not occurred. The subject site is located at the end of the LIE, a location that the SGPA Plan finds appropriate for industrial use.

The project site is shown on the SGPA Plan as recommended for low-density residential use (see **Figure 2-7**), which reflects the use of the site as it existed at the time the SGPA Plan was prepared in 1992 (see **Figures 1-2g and 1-2h**). However, low-density residential use does not reflect the industrial zoning of the site, and does not conform to or complement the industrial uses that dominate areas contiguous to the west, south and southwest

Site Specific Groundwater Study - As noted in Section 2.2.1 above and in **Appendix D**, an on-site groundwater investigation was completed. Groundwater flow is confirmed to be toward the northeast, based on on-site wells and groundwater elevations. Groundwater quality is generally good to excellent, with no VOCs, pesticides or herbicides detected. Low level SVOCs were detected, but these were below Ambient Water Quality Standards. Manganese was detected, but this is a naturally occurring metal in Long Island groundwater. PFOA was detected in the upgradient well, indicating an off-site source; however, this detection was less than the NYS Maximum Contaminant Level. Groundwater flow direct was confirmed through this study, and no significant adverse water quality impacts were identified in existing groundwater samples from the site.

Agency Coordination – This DEIS provides a mechanism for interagency coordination of applicable permits for site development. As noted, review of the Site Characterization study and Part 360 permit are pending. SCDHS will approve water supply and wastewater disposal through general engineering review. A private water source is proposed for site water supply. Interagency coordination should continue through the SEQRA EIS review process.

2.2.3 Proposed Mitigation

- As no adverse impacts to groundwater quality or quantity are anticipated to occur because of the project, no additional mitigation measures beyond the operational procedures planned for the project or inherent to its design are necessary or proposed.
- The proposed project will adhere to the terms and mitigation measures specified in the SWPPP (if required), ensuring that the project minimizes the potential to impact adjacent sites from uncontrolled runoff.
- The proposed project conforms to all applicable recommendations of the SGPA Plan as practicable. Thus, no additional mitigation measures beyond the operational procedures planned for the project or inherent to its design are necessary or proposed.

2.3 Ecology

2.3.1 Existing Conditions

It is noted that part of the site is cleared but some vegetation remains, particularly in the southeast and southwest parts of the site, with narrow areas of retained vegetation on the perimeter of the site. The central and north part of the site was subject to clearing in 2017. These areas include barren soil and some successional field vegetation. Areas of invasive plants and pioneer vegetation are apparent at the fringes of the cleared area and contain Japanese knotweed, sumac species, tree-of-heaven and aspen species. Other invasive plants occupy more natural areas of the site including Asiatic bittersweet, autumn olive, phragmites and porcelain berry. The south-central part of the site includes an existing residence and a small manmade pond. The west-central part of the site is occupied by a barn. Vegetation is present around the structures; however, includes some ornamental and specimen trees. The southeast and southwest parts of the site contain the most significant habitat due to lack of disturbance.

The site lies adjacent to two roads, Manor Road to the north and Middle Road to the south. North of Manor Road are high-tension wires and agricultural use. East of the site are five (5) residential homes east of the subject site between Manor Road and Middle Road several of which appear to support commercial operations. West of the site is farm field and cleared land, south of the site is industrial use and east of the site is a commercial/truck storage operation and vacant land. These conditions indicate that the site is subject to light and noise from the adjoining roads. Potential domestic pets from residential uses in the area. Dust and noise from agricultural areas. And general noise and activity from the industrial area and general conditions surrounding the property. As a result, from an ecological standpoint, the site is not expected to harbor rare or secretive species but would favor common backyard species that are adapted to environments with similar levels of activity. Expected species include songbirds, perching birds, small mammals and racoon, with other less likely but occasional visitors as will be discussed herein. No known ecological destinations are located on the property or the surrounding area. There is a small man-made pond which is a minor feature and not a natural condition or designated wetland. This may provide a water source for site wildlife. The following provides a more detailed description of vegetation and wildlife on the subject site.

<u>Vegetation</u>
As previously indicated, a portion of the site has been cleared in anticipation of commencing the asphalt and concrete crushing and screening operations represented by the proposed project. Areas outside of the cleared areas, specifically forming the perimeter of the site, consist of wooded areas of varying disturbance. Residential and industrial properties are present surrounding the property to the north, east, and south. An agricultural field is present to the west of the site. Additional agricultural fields, sparse residential development and undeveloped lands are located further from the site. The cleared areas were observed to be partially revegetated by successional pioneer herbaceous species typically found in open sandy areas during the August 30, 2019 site inspection. This is likely a result of recent inactivity at the

site, subsequent to clearing. Two structures, a barn and a former residence are present on the southern portions of the site. Vegetation immediately surrounding these structures, especially the residence, consists partially of remnant ornamental plantings. A defunct pool is also present to the north of the residence. At the time of the site inspection water was observed on the top of the pool covering supporting a small amount of hydrophytic plants, the vast majority of which consisting of Common Reed (Phragmites australis). A shallow artificial pond is present on the southeastern portions of the site. The pond was observed to have high turbidity and a lack of vegetation within and immediately proximate to the border, with the exception of a limited number of Irises (Iris sp).

The 6.68±-acre subject parcel was inspected by NPV on August 30, 2019. The predominant cover types found at the site can be categorized as successional old field and successional southern hardwoods as defined by the classification system developed by the NYSDEC **(Edinger et al., 2014)**. It is important to note that the wooded areas located on the southern portions of the site were observed to also display characteristic species found in the coastal oak-hickory forest habitat, though the habitat is not fully reflective of the definition as identified by the NYSDEC. The existing site habitat quantities as determined by aerial photography and field inspections by NPV are presented in **Table 2-**.

Edinger (2014) defines successional old field as "a meadow dominated by forbs and grasses that occurs on sites that have been cleared and plowed (for farming or development), and then abandoned. Fields that are mowed at an interval (e.g., less than once per year) that favors reproduction of characteristic successional old field species are included here. Characteristic herbs include goldenrods (Solidago altissima, S. nemoralis, S. rugosa, S. juncea, S. canadensis and Euthamia graminifolia), bluegrasses (Poa pratensis, P. compressa), timothy (Phleum pretensis), quackgrass (Elymus repens), smooth brome (Bromus inermis), sweet vernal grass (Dactylis glomerate), common chickweed (Cerastium arvense), common evening primrose (Oenothera biennis), old-field cinquefoil (Potentilla simplex), calico aster (Sympyotrichum novae-angliae), wild strawberry (Fragaria virginiana), Queen-Anne's-lace (Daucus carota), ragweed (Ambrosia artemisiifolia), hawkweeds (Hieracium spp.) dandelion (Taraxacum officinale), and ox-tongue (Picris hieraciodies). Shrubs may be present, but collectively they have less than 50% cover in the community." The central portions of the site, located northwest of the buildings, are representative of the successional old-field community. Dominant species include Sweet Goldenrod (Solidago odora), Broomsedge (Andropogon virginicus), Common Reed (Phragmites australis), Crabgrasses (Digitaria spp.) and Ragweed (Ambrosia artemisiifolia).

Edinger (2014) defines the successional southern hardwoods habitat as "a hardwood of mixed forest that occurs on sites that have been cleared or otherwise disturbed. Characteristic trees and shrubs include any of the following: American elm (Ulnus Americana), slippery elm (Ulnus rubra), white ash (Fraxinus Americana), red maple (Acer rubrum), box elder (Acer negundo), silver maple (Acer 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 locusts (Robinia pseudo-acacia), tree-of-heaven (Ailanthus altissima), and buckthorn (Rhamnus cathartica). Any of these may be dominant or codominant in a successional southern hardwood forest. This is a broadly defined community and several seral and regional variants are known."

Edinger (2014) defines the coastal oak-hickory forest as "a hardwood forest with oaks (Quercus spp.) and hickories (Carya spp.) codominant that occurs in dry, well-drained, loamy sand of knolls, upper slopes, or south facing slopes of glacial moraines of the coastal plain. The forest is usually codominated by two or more species of oaks, usually white oak (Q. alba), black oak (Q. veluntina) and chestnut oak (Q. montana). Scarlet oak (Q. coccinea) is also a common associate. Mixed with the oaks are one of the following hickories: pignut (Carya glabra), mockernut (C. tomentosa), and sweet pignut (C. ovalis). These hickories can range from nearly pure stands to as little as about 25% cover. There is typically a subcanopy stratum of small trees and tall shrubs including flowering dogwood (Cornus florida) and highbush blueberry (Vaccinium corymbosum). The shrub layer and groundlayer flora may be diverse. Common low shrubs include maple-leaf viburnum (Viburnum acerifolium), lowbush blueberries (Vaccinium angustifolium, V. pallidum) and black huckleberry (Gaylusacia baccata). Characteristic groundlayer herbs are Swan's sedge (Carex swanii), panic grass (Panicum dichotomum), poverty grass (Danthonia spicata), cow-wheat (Melampryrum lineare), spotted wintergreen (Chimaphila maculata), rattlesnake weed (Hieracium venosum), white wood aster (Eurybia divaricata), false Solomon's-seal (Polygonatum biflorum) and Canada mayflower (Maianthemum canadense)."

As previously indicated, the central portions of the site were observed to consist of cleared areas that have been partially revegetated. The species present within these areas were primarily grasses and low-growing herbaceous vegetation. At the periphery of this habitat, saplings of quickly growing shrubs and trees (e.g., Tree-of-heaven, Japanese Knotweed [Reynoutria japonica]) were noted. Dominant species included various species of goldenrod (Solidago spp.), Daisy Fleabane (Erigeron annuus) and Sweet Fern (Comptonia peregrina). The periphery of the successional old field portions of the site are dominated by invasive species including Japanese Knotweed and Common Reed. Unvegetated gravel areas are also interspersed within this area, including several stockpiles, Vegetation coverage within these areas varied, but depending upon the length of time left fallow, may also revegetate completely.

Wooded areas at the northern portions of the site consist of the southern successional hardwood habitat, typical species of this habitat as described by the NYSDEC were observed within this area as well as additional invasive species, primarily Asiatic Bittersweet (Celastrus orbiculatus). Additional dominants include Red Oak (Quercus rubra) and American Beech (Fagus grandifolia). Several herbaceous plants consistent with roadside communities were also observed, such as Broadleaf Plantain (Plantago major), Garlic Mustard (Alliaria petiolata), and Chicory (Cichorium intybus), likely due to the site proximity to the roadway and adjacent agricultural fields and associated disturbances.

Wooded areas located to the south of the residence should be considered the healthiest portion of the site from an ecological perspective. Although not pristine, these woodlands have a limited amount of invasive species and a fair prevalence of hickory trees (Carya spp.). As previously indicated, this area displays elements of both southern successional hardwood and coastal oak-hickory forest habitats. As such, it could be considered a potential seral community and/or hybrid of both environments.

Several terrestrial cultural habitats, as defined by the aforementioned NYSDEC classification system, were also observed during the field visits. The terrestrial cultural subsystem includes communities that are either created and maintained by human activities or are modified by human influence to such a degree that the physical conformation of the substrate, or biological composition of the resident community is substantially different from the character of the substrate or community as it existed prior to human influence. The areas immediately surrounding the buildings can best be described as an urban structure exterior community. These areas include remnant ornamental species of plants from former landscaping. Finally, unpaved access roads from the surrounding roadways are present at the southeast and northeast portions of the site. The northeast access road is blocked off by a chain barrier and at the early stages of vegetative succession, limiting its functionality. The access road at the southeast portions of the site is the only vehicular point of access for the site and features a wooden bridge traversing a small gully. **Table 2-2** provides habitat quantities on the subject site and **Figure 2-8** provides a habitat map.

Table 2-2
HABITAT QUANTITIES
Existing Conditions

Coverage Type	Existing	
	Acres	% of site
Successional southern hardwood[2]	4.77	71.41%
Successional old field	1.56	23.35%
Unpaved road/path	0.17	2.54%
Urban structure exterior	0.17	2.54%
Pond	0.01	0.15%
TOTAL	6.68	100.00%

Table 2-3 presents a list of vegetation observed on site during field investigations conducted by NPV on August 30, 2019. This list is not meant to be all-inclusive but was prepared as part of a field inspection to provide a detailed representation of what is found on site. Care was taken to identify any species that might be unusual for the area.

[2] The extent of hickory trees is located entirely within the Successional Southern Hardwood habitat and totals ±0.89 acres and 13.4% of the site.

Table 2-3
PLANT SPECIES WITHIN THE SITE

Common Name	Scientific Name	Stratum
Upland Bent	Agrostis perennans	Herb
Tree-of-heaven[i]	Ailanthus altissima	Shrub/tree
Garlic Mustard[i]	Alliaria petiolata	Herb
Porcelain Berry[i]	Ampelopsis brevipedunculata	Shrub
Mugwort[i]	Artemisia vulgaris	Herb
Common Milkweed	Asclepias syriaca	Herb
Pignut Hickory	Carya glabra	Tree
Asiatic Bittersweet[i]	Celastrus orbiculatus	Vine
Striped Wintergreen[p]	Chimaphila maculata	Herb
Chicory	Cichorium intybus	Herb
Canada Thistle[i]	Cirsium arvense	Herb
Sweet Fern	Comptonia peregrina	Shrub
Nutsedge	Cyperus rotundus	Herb
Umbrella Sedge	Cyperus sp.	Herb
Queen Anne's Lace	Daucus carota	Herb
Crabgrass	Digitaria sp.	Herb
Autumn Olive[i]	Elaeagnus umbellata	Shrub/tree
Daisy Fleabane	Erigeron annuus	Herb
Spurge	Euphorbia sp.	Herb
Slender-leaved Goldenrod	Euthamia graminifolia	Herb
American Beech	Fagus grandifolia	Tree
Daylily	Hemerocallis sp.	Herb
Hosta	Hosta sp.	Shrub
Hydrangea	Hydrangea sp.	Shrub
Iris	Iris sp.	Herb
Mulberry	Morus sp.	Shrub
Common Evening Primrose	Oenothera biennis	Herb
Common Yellow Woodsorrel	Oxalis stricta	Herb
Virginia Creeper	Parthenocissus quinquefolia	Vine
Timothy	Phleum pratense	Herb
Common Reed[i]	Phragmites australis	Herb
Pokeweed	Phytolacca americana	Shrub
Norway Spruce	Picea abies	Tree
Pitch Pine	Pinus rigida	Tree
Plantain	Plantago sp.	Herb
Common Smartweed	Polygonum pensylvanicum	Herb
Black Cherry	Prunus serotina	Tree
White Oak	Quercus alba	Tree

Scarlet Oak	Quercus coccinea	Tree
Red Oak	Quercus rubra	Tree
Japanese Knotweed[i]	Reynoutria japonica	Shrub
Rhododendron	Rhododendron sp.	Shrub
Smooth Sumac	Rhus glabra	Shrub
Black Locust[i]	Robinia pseudoacacia	Tree
Multiflora Rose[i]	Rosa multiflora	Shrub
Wineberry[i]	Rubus phoenicolasius	Vine
Raspberry	Rubus sp.	Shrub
Dock	Rumex sp.	Herb
Sassafras	Sassafras albidum	Shrub/tree
Little Bluestem	Schizachyrium scoparium	Herb
Giant Foxtail	Setaria faberi	Herb
Green Foxtail	Setaria viridis	Herb
Roundleaf Greenbriar	Smilax rotundifolia	Vine
Gray Goldenrod	Solidago nemoralis	Herb
Sweet Goldenrod	Solidago odora	Herb
Goldenrod	Solidago spp.	Herb
Annual Sowthistle	Sonchus oleraceus	Herb
Dandelion	Taraxacum sp.	Herb
Poison Ivy	Toxicodendron radicans	Vine
White Clover	Trifolium repens	Herb
Common Mullein	Verbascum thapsus	Herb
Wild Grape	Vitis sp.	Vine

[e] NYS endangered species
[i] NYS invasive species (no legal status)
[p] NYS exploitably vulnerable protected plant
[E] Federally endangered species

Wildlife

A site inspection was performed on August 30, 2019 by NPV staff. It is expected that the woodland and terrestrial cultural habitats on the property should support a number of wildlife species common to suburban habitats, particularly those species that are more tolerant of human activity. Species that avoid humans and/or those species that are sensitive to development or require specialized habitats are less likely to inhabit the site. The following paragraphs describe the wildlife observed or expected on site.

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

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

During the August 30, 2019 site visit, a Downy Woodpecker, Gray Catbird, Song Sparrow, and Turkey Vulture were seen and/or heard. In order to provide a more detailed representation of the avian species potentially present on site, the NYS Breeding Bird Atlas was reviewed to obtain data from the 2000-2005 Breeding Bird Survey for the census block encompassing the subject parcel **(Appendix E-1)**. This study surveyed the entire State by 25 km² census blocks over a five-year period (2000 to 2004) to determine the bird species which breed within the State. Most of the species listed by the NYSDEC breeding bird survey are likely to be found on site; however, it should be noted that the census blocks cover a large expanse and not all the habitats found within the census block are present at the site. Species listed by the NYS Breeding Bird Atlas that are highly unlikely to utilize the site (e.g., water-dependent birds) were removed from the list below. In addition, species directly observed during the site visit were noted and/or added to the list. No unique species or species of special concern are expected on the site given the immediate surrounding site uses. **Table 2-4** lists the bird species observed or expected on-site or potentially in association with the site.

Table 2-4
BIRD SPECIES

Ruby-throated Hummingbird	Archilochus colubris
Tufted Titmouse	Baeolophus bicolor
Cedar Waxwing	Bombycilla cedrorum
Canada Goose	Branta canadensis
Great Horned Owl	Bubo virginianus
Red-tailed Hawk	Buteo jamaicensis
Northern Cardinal	Cardinalis cardinalis
House Finch	Carpodacus mexicanus
Turkey Vulture*	Cathartes aura
Veery	Catharus fuscescens
Chimney Swift	Chaetura pelagica
Killdeer	Charadrius vociferus
Common Nighthawk	Chordeiles minor
Yellow-billed Cuckoo	Coccyzus americanus
Northern Flicker	Colaptes auratus
Northern Bobwhite	Colinus virginianus
Rock Pigeon	Columba livia
Eastern Wood-Pewee	Contopus virens
American Crow	Corvus brachyrhynchos
Fish Crow	Corvus ossifragus
Blue Jay	Cyanocitta cristata
Gray Catbird*	Dumetella carolinensis

Barn Swallow	Hirundo rustica
Wood Thrush	Hylocichla mustelina
Baltimore Oriole	Icterus galbula
Eastern Screech-Owl	Megascops asio
Red-bellied Woodpecker	Melanerpes carolinus
Wild Turkey	Meleagris gallopavo
Song Sparrow*	Melospiza melodia
Northern Mockingbird	Mimus polyglottos
Brown-headed Cowbird	Molothrus ater
Great Crested Flycatcher	Myiarchus crinitus
House Sparrow	Passer domesticus
Ring-necked Pheasant	Phasianus colchicus
Downy Woodpecker*	Picoides pubescens
Eastern Towhee	Pipilo erythrophthalmus
Scarlet Tanager	Piranga olivacea
Black-capped Chickadee	Poecile atricapillus
Blue-gray Gnatcatcher	Polioptila caerulea
Purple Martin	Progne subis
Common Grackle	Quiscalus quiscula
Eastern Phoebe	Sayornis phoebe
Ovenbird	Seiurus aurocapilla
White-breasted Nuthatch	Sitta carolinensis
American Goldfinch	Spinus tristis
Chipping Sparrow	Spizella passerina
Field Sparrow	Spizella pusilla
European Starling	Sturnus vulgaris
Carolina Wren	Thryothorus ludovicianus
Brown Thrasher	Toxostoma rufum
House Wren	Troglodytes aedon
American Robin	Turdus migratorius
Eastern Kingbird	Tyrannus tyrannus
Yellow-throated Vireo	Vireo flavifrons
Warbling Vireo	Vireo gilvus
Red-eyed Vireo	Vireo olivaceus
Mourning Dove	Zenaida macroura

*Species observed on site by NPV staff during field visits.

Mammals - During the site visit conducted on August 30, 2019 no mammals were observed on the subject property. The habitats found on the proposed project site are expected to support a number of mammal species. Small rodents and insectivores such as mice, shrews and voles as well as squirrels are expected to be the most abundant mammals, but the property and surrounding area should also support larger mammals, such as white-tailed deer, though likely in reduced numbers.

Table 2-5 is a list of the mammal species that have the potential to occur on the property because of existing conditions on-site and in the surrounding area. This list is not meant to be all-inclusive but is intended to provide a list of the most common species.

Table 2-5
MAMMAL SPECIES

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

* Species observed on site by NPV staff during field visits.

Amphibians and Reptiles - The site may support a limited number of terrestrial herpetofauna species; however, no amphibians or reptiles were observed during the field inspections. Two toads are common on Long Island in upland habitats. The Eastern Spadefoot Toad occurs in woods, shrublands and fields with dry, sandy loam soils, and breeds in temporary pools **(Behler and King, 1979)**. The Fowler's Toad prefers sandy areas near marshes, irrigation ditches and temporary pools. These species are the most likely amphibians to be present on the site. Additional species that would be expected on-site based on habitat are included in the species list (below) in order to fully account for potential impacts to same.

Several species of reptiles might potentially be found on the property, including the Eastern Garter Snake, and Eastern Milk Snake **(Wright, 1957).** These species are terrestrial species found in a variety of habitats. The Garter Snake is relatively tolerant of human activity but prefers moist soils. The Milk Snake is found in soils of varying moisture content. These snakes are all colubrid snakes, which feed on whole animals such as worms, insects or small amphibians **(Behler and King, 1979).** The larger Milk Snake will also take small rodents and birds **(Behler and King, 1979).**

The only turtle species common to terrestrial habitats on Long Island (although listed in New York State as a species of special concern) is the Eastern Box Turtle, which requires very little

water **(Obst, undated).** The species is found in a variety of habitats but prefers moist woodlands. The Eastern Box Turtle feeds primarily on slugs, earthworms, wild strawberries and mushrooms **(Behler and King, 1979).**

In order to provide a more detailed representation of the herpetofauna species potentially present on site, The NYSDEC Amphibian and Reptile Atlas Project was referenced. The project was a ten-year survey (1990-1999) that was designed to document the geographic distribution of New York State's herpetofauna. The unit for measurement for collecting atlas data is the United State Geological Survey (USGS) 7.5-minute topographic quadrangle. It should be noted that the quadrangles cover a large expanse and not all the habitats found within the census block are present at the site. Species listed by the Atlas Project that are highly unlikely to utilize the site were removed from the list below. In addition, species directly observed during the site visit were noted and/or added to the list. No unique species or herpetofauna species of special concern are expected on the site given the immediate surrounding site uses.

Table 2-6 presents a list of reptile species that might occur on site given the existing habitats. This list is not intended to be all-inclusive but provides a detailed representation of what is or is likely to be found on site.

Table 2-6
REPTILE AND AMPHIBIAN SPECIES

Amphibians		
	Common Gray Treefrog	Hyla versicolor
	Fowler's Toad	Bufo woodhousei fowleri
	Red-backed Salamander	Plethodon cinerus cinerus
Reptiles		
	Eastern Milk Snake	Lampropettis d. triangulum
	Eastern Box Turtle[s]	Terrepene carolina
	Eastern Garter Snake	Thamnophis sirtalis

[s] NYSDEC special concern species

Rare and Endangered Species/Unique Habitat Potential

The N.Y. Natural Heritage Program (NYNHP) (ECL 9-1503) was contacted to determine if there is any record of rare plants, habitats or wildlife in the vicinity. The Natural Heritage Program has no records of endangered or threatened plant species on or within the vicinity of the subject property. NYNHP has no known occurrences of state-listed animals or insects on or in the vicinity of the subject site. The Northern Long-Eared Bat was not identified in correspondence from the NYNHP **(Appendix E-2).**

Peconic River

The Peconic Estuary is recognized as an Estuary of National Significance under the federal government's National Estuary Program (NEP). The project site is located approximately 3,000 feet southeast of the Peconic Estuary system. Th Peconic Estuary system is managed under the Peconic Estuary Program (PEP) which is a cooperative effort between the state of New York, Suffolk County, the United States Environmental Protection Agency (EPA), the scientific community, and the citizens of the Peconic Estuary watershed. A Comprehensive Conservation

and Management Plan (CCMP) was adopted in 2001 to address issues such as an excess of nitrogen input, habitat degradation, pathogens and harmful algal blooms (HABs). Development and operational activities at the project site have the potential to impact the Peconic Estuary given its proximity and hydraulically upgradient location with respect to groundwater flow.

The Peconic Estuary includes 5,680 acres of tidal wetlands and 111 rare species and is noted for its historic significant contributions to the seafood market. The health of the Peconic Estuary is of utmost importance to facilitate the continuation of aquaculture as well as the protection of valuable and irreplaceable habitat on Long Island.

It is important to note that the area between the project site and the Peconic Estuary is improved with industrial and commercial uses as well as a major highway interchange (Long Island Expressway [I-495]). These developments are located hydraulically downgradient from the project site with respect to groundwater flow.

2.3.2 Anticipated Impacts

Vegetation

The impacts to the ecological resources of a site are typically a direct result of clearing of vegetation, increase in human activity and associated wildlife stressors, and the resulting loss and increased fragmentation of wildlife habitat. As the site has been recently partially cleared, those impacts are lessened. The majority of the site consists of successional old field and successional southern hardwoods with the highest quality habitat being located on the southern portions of the site. Based upon the current project plans, the majority of the highest-quality habitat on-site, which includes the wooded areas containing hickory trees, will be retained. The narrower wooded habitat areas on the northern portions of the site will be cleared for improvements related to the asphalt and concrete crushing and screening operations. This vegetation removal affects views as will be discussed in **Section 3.2.2**. It is important to note that this site is located within an area extensively developed with industrial and agricultural usages. The wooded areas are substantially fragmented with the closest contiguous natural land being located to the east and southeast across Middle Road.

Clearing will be limited to what is necessary for the project. Retention of the most significant vegetation on the southeast and southwest parts of the site is maximized. Stormwater retention has been located below grade to reduce clearing which might otherwise be used for surface retention of stormwater. The existing structures on the site will remain and will be utilized for the proposed commercial/industrial purposes. No new buildings are proposed; however, a small parking area will be added, and driveway improvements will be completed. The small pond to be filled is not a significant natural feature. This is a man-made pond that does not support vegetation other than iris.

It is expected that landscape mitigation screening will be installed on the northeast, north and northwest parts of the property. Screening will provide additional habitat potential particularly

for avian species which may utilize trees for perching and foraging. Any vegetation to be planted will be adapted to ensure survival and reduce or eliminate the need for watering, fertilizers or pesticides. Species listed on the NYSDEC's invasive and prohibited species lists will not be used.

The NY Natural Heritage Program has no records of state-listed plants, significant natural communities or other significant habitats on or within the immediate vicinity of the subject site. No impact with respect to state listed plants or significant habitats are anticipated.

Wildlife

The habitat within the development area is southern successional hardwood and successional old field as well as several terrestrial cultural habitats and a seral successional community inclusive of a population of hickory trees. The property contains a small population of local birds and mammals, such as songbirds and Eastern Gray Squirrels. The proposed project will favor those wildlife species that prefer edge and suburban habitats and those that are tolerant of human activity. Most of the species expected on the property are at least somewhat tolerant of human activity and/or are mobile, such as avian species. It is expected that these species of wildlife (principally avian species and some mammals) will migrate to undisturbed areas adjacent or near the site as a result of development. Some less mobile species may be impacted by the proposed clearing and increase in human activity. As portions of the site have already been cleared and will be re-cleared as a part of the proposed project, some wildlife impacts have likely already occurred in the form of displaced species.

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

The wildlife that inhabits the wooded areas in the southeast and southwest parts of the site will continue to occupy these areas. As these woods are the most significant natural features on the site, and will be retained, wildlife impacts are expected to be minimal, particularly given the existing disturbance on the site and in the area. As noted, the small pond to be filled is not a significant natural feature. This is a man-made pond that does not support significant wildlife resources.

As noted, landscape mitigation screening will be installed on the northeast, north and northwest parts of the property. Screening will provide additional habitat potential particularly for avian species which may utilize trees for perching and foraging.

No rare or endangered wildlife species are expected on the site given the habitats and conditions present. The Northern Long-Eared Bat was not identified in correspondence from the NYNHP.

As discussed in **Section 3.2.2**, site lighting will not minimal and not obtrusive. Site lighting will conform with dark sky requirements and Town Code Chapter 301 and will include downcast lighting for site safety and security.

With respect to the Peconic Estuary, there is no potential for direct impacts associated with development and future uses. Specifically, stormwater will be retained on-site and sanitary wastewater volumes are low and comparable to the pre-existing single-family dwelling. The project site is located approximately 3,000 feet upgradient of the Peconic Estuary, and as a result, no impact is expected with respect to the river system.

2.3.3 Proposed Mitigation

- Retain existing natural wooded areas in southeast and southwest parts of the site.
- Establish perimeter landscaping as a mitigation measure for visual screening and added habitat. Any vegetation to be planted will be adapted to ensure survival and reduce or eliminate the need for watering, fertilizers or pesticides. Species listed on the NYSDEC's invasive and prohibited species lists will not be used.

2.4 Air Quality

2.4.1 Existing Conditions

Air Quality

The air quality characteristics of the site in its present, vacant use as well as the anticipated impacts of the proposed use as a concrete crushing facility, and conformance to applicable health regulations were determined in the *"Air Quality Analysis and Impact Review,"* prepared by B. Laing Associates, of Fort Salonga, New York (see **Appendix F**). The following has been taken from that report. (Note: table references in the text below refers to the report provided in Appendix F.)

The purpose of this analysis is to evaluate temporary or permanent impacts to air quality that may occur as a result of the Project. The closest receptors occur to the site's east/southeast including one commercial property and two residentially-developed properties (although all these properties are zoned for an industrial use. Mitigation and assessment of significant air quality impacts will be addressed accordingly.

Climate - The climate in Calverton, New York is warm during the summer when average temperatures tend to be in the 80's and very cold during winter when average temperatures tend to be in the 30's. The National Oceanic and Atmospheric Administration

(NOAA) record this local climate in Shirley, Brookhaven airport, Suffolk County, New York. The warmest month of the year is July with high average temperature of 81 degrees Fahrenheit, while the coldest months of the year are January and February with a high average of temperature 31 degrees Fahrenheit. Temperature variations between night and day tend to be fairly consistent during both the winter and summer seasons with a difference that can reach 15-17 degrees Fahrenheit. The annual average precipitation in Calverton, NY is around 45.36 inches.[3] This locale receives about 29 inches of snow per year on average.

Brookhaven airport was also used to provide meteorological data for the air quality analysis. This included five years of hourly data from b0th surface and upper sir observations. Hourly results from 2105 through 2019 (24 hours per day, 365 days a year – as available) were compiled and formatted for use in US EPA's AERMOD.

Ambient Air Quality - Existing air quality is good in the vicinity of the Project site. The median air quality index (AQI) in 2019 for Suffolk County, New York was 40.[4] An AQI between 0 and 50 is satisfactory and air pollution poses little or no risk. Existing air quality standards for New York State are found in the State Ambient Air Quality Standards (SAAQS) which largely mimic the National Ambient Air Quality Standards (NAAQS). Possible relevant pollutants for mobile sources are particulate matter (PM), ozone (O_3) and carbon monoxide (CO). Carbon monoxide is the dominant pollutant and so, it is modeled as provided in NYSDOT's The Environmental Manual (TEM).

Table 1 depicts the N/SAAQS.

NYSDEC monitors air quality throughout the state. There are currently fifty-eight (58) active air monitoring sites in New York State. Parameters observed vary from air monitoring sites. Five (5) monitoring sites are located within NYSDEC Region 1 (Long Island) with one (1) site in Nassau County and four (4) sites in Suffolk. The closest monitoring site to the Project is 36-103-0004 located at 39 Sound Avenue, Riverhead, New York. Parameters are described below:

Particulate matter ($PM_{2.5}$) is measured in Holtsville, New York at Site No. 36-103-0009. This site had an annual mean standard for last three (3) years (2017-2019) of 6.2ug/$m^{3.}$ This annual mean was well below the 12 ug/m^3 standard. The Holtsville site had an average of 98th percentile for last 3 years 15.2 ug/$m^{3.}$ This average was well below the 35 ug/m^3standard.

[3] Climate-data.org
[4] According to the United States Environmental Protection Agency (EPA) Outdoor Air Quality Data, Air Quality Index Report.

Particulate matter (PM_{10}) is not measured in NYSDEC Region 1. The closest monitoring station is approximately 60 miles to the west at Queens College 2 (Site No. 36-081-0124). The maximum 24-hour concentration in 2019 was 28 ug/m^3 versus a standard of 150 ug/m^3. No days were recorded over the 150 ug/m^3 over the last three years (2017-2019).

This type of use (as proposed to a "smokestack" industry) dominantly generates Particulate Matter (PM_{10}) with a somewhat larger aerodynamic diameter. Thus. PM_{10} was analyzed for the project.

Ozone is measured at the Riverhead site (36-103-0004) in Suffolk County. It is the only pollutant that occasionally exceeds the standard both in NYSDEC Region 1 and State-wide. It is formed from the long-term transport of hydrocarbon emissions in the mid-western United States and as such, is not a "local" enforcement issue on emissions. The average 3 year annual mean for this pollutant was 0.072 parts per million (ppm) for the years 2017 to 2019. The first highest maximum daily eight hour average was 0.079 ppm in 2019 when it slightly exceeded the 0.070 ppm standard.

Sulfur dioxide (SO_2) is monitored at Holtsville, New York at Site No. 36-103-0009. In 2019, the annual average was recorded at 0.38 parts per billion (ppb) versus an annual standard not to exceed 30 ppb and the one hour average for the last three years (2017-2019) have peaked at 3.13 ppb versus a standard of 75 ppb.

Carbon Monoxide (CO) is not measured in NYSDEC Region 1. The closest monitoring station is approximately 60 miles to the west at Queens College 2 (Site No. 36-081-0124) and Queens College Near Road (Site No. 36-081-0125). The highest one hour value in 2019 at Site No. 36-081-0124was 1.51 ppm versus a standard of 35 ppm. The highest eight hour value was 1.10 ppm versus a standard of 9.0 ppm. The highest one hour value in 2019 at Site No. 36-081-0125 was 2.85 ppm versus a standard of 35 ppm. The highest eight hour value was 1.30 ppm versus a standard of 9.0 ppm.

Nitrogen dioxide (NO_2) and lead are also not measured at 36-103-0004 located at 39 Sound Avenue, Riverhead, New York. Monitoring sites for these pollutants are located in Region 2.

Table 1
National/State Ambient Air Quality Standards*

POLLUTANT	PRIMARY/ SECONDARY	AVERAGING TIME	LEVEL	FORM
CARBON MONOXIDE	Primary	8-hour	9 ppm	Not to be exceeded more than once per year
		1-hour	35 ppm	
LEAD	primary and secondary	Rolling 3-month average	0.15 µg/m^3 (1)	Not to be exceeded

NITROGEN DIOXIDE		Primary	1-hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		primary and secondary	Annual	53 ppb [(2)]	Annual Mean
OZONE		primary and secondary	8-hour	0.070 ppm [(3)]	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
PARTICLE POLLUTION	$PM_{2.5}$	Primary	Annual	12 $\mu g/m^3$	annual mean, averaged over 3 years
		Secondary	Annual	15 $\mu g/m^3$	annual mean, averaged over 3 years
		primary and secondary	24-hour	35 $\mu g/m^3$	98th percentile, averaged over 3 years
	PM_{10}	primary and secondary	24-hour	150 $\mu g/m^3$	Not to be exceeded more than once per year on average over 3 years
SULFUR DIOXIDE		Primary	1-hour	75 ppb [(4)]	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		Secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

* http://www.dec.ny.gov/chemical

Dust

As indicated in **Section 1.5.2**, the operations manager will be responsible for all operational activities on-site during material processing. Measures will be taken prevent/reduce wind-blown dust. Dust controls will involve using an on-site water truck. Water will be provided from the on-site private well, and will be stored for use on-site. Stored water will be used in spray form to wet dry surfaces that may cause fugitive dust during dry periods and wind events.

2.4.2 Anticipated Impacts

Air Quality

Mobile Pollutant Screening

The first level of "air quality screening" as provided in NYSDOT's The Environmental Manual (TEM) is essentially a traffic analysis consistent with the Highway Capacity Manual (HCM). The Traffic Impact Study was provided by Nelson & Pope Engineers and Surveyors, April 2020, and is Appendix of the Draft Environmental Impact Statement (DEIS). The TEM provides guidance on determination for a required microscale analysis which is based on the consideration of several standards.

Per TEM I-1 Level of Service (LOS) Screening, intersections potentially impacted by the Project must be screened for overall Level of Service (LOS). If the LOS is A, B, or C, no further analyses are required. If any signalized intersections have LOS predicted D, E, or F,

significant vehicle queuing may occur and further analysis may be required for up to the three worst intersections. In this case, traffic data was collected from NYSDOT, Town of Riverhead and through field data collection. Three (3) existing intersections, as listed in Table 2, were analyzed by the engineer. The traffic data included one (1) signalized intersection and two (2) unsignalized/stop-controlled intersections. These intersections were analyzed in the A.M., P.M. and Saturday peak scenarios. LOS was analyzed in the three different scenarios condition for base (2020), no build (2022) and build phase (2022).

Sensitive receptors (i.e., schools, hospitals, etc.) were to be located during this air quality analysis for potential impact. In microscale dispersion modeling, link length and queues for intersections are set between 1,000 and 1,200 foot receptor analysis for free flow links. This is required by The Environmental Manual (TEM). A few notable receptors, such as Splish Splash (1.4 miles), Riverhead Charter School (1.8 miles), All Saints Monastery (0.3 miles) and the Tanger Outlets (3 miles) were recorded as existing. There are no "sensitive" noise receptors in the vicinity of the project sites. The ambient air quality standards cited above were set to protect the public health and welfare, including sensitive individuals. Thus, in the end, all such receptors are subject to the same standards

Mobile Source Air Quality Impacts

No significant air quality impacts related to traffic are anticipated as a result of the buildout of the Project. Per the TEM Level of Service (LOS) Screening, if the LOS is A, B, or C, no further analyses are required. In this case, the Traffic Impact Study provided by Nelson & Pope Engineers and Surveyors, April 2020, has determined that the LOS will achieve A, B or C in the build scenario.

Facility Pollutant Modeling

The Project will consist of the handling, grinding and sorting of recycled concrete and other aggregate materials. This activity will generate significant amounts of particulate matter. To determine the potential impact of this facility on the closest (and especially residential) receptors, the project was subjected to dispersion modeling utilizing US EPA's AERMOD. The project includes both point sources (the griding and sorting assemblies) and "fugitive dust" generated from storage piles' surfaces. This type of use (as proposed to a "smokestack" industry) dominantly generates Particulate Matter (PM_{10}) with a somewhat larger aerodynamic diameter. Thus, PM_{10} was analyzed for the project. Emission concentrations and volumes were determined using USEPA's Air Pollution publication #42 as specifically outlined for grinding and sorting and generation of "fugitive dust." No mitigating measures were assumed in the modeling. As such, if "dust control" measures are implemented, the results will be less than predicted by the model.

AERMOD takes the emissions and disperses them into the local environmental using 3 dimensional, Gaussian plume calculations over time and space. The physical space is laid out as to sources and receptors using UTM coordinates and
are modified by heights in meters.

Beyond the emission and physical layouts, the modeling includes meteorological inputs from the closest continually-recording source. Thus, Brookhaven airport was used to provide meteorological data for the air quality analysis. This included five years of hourly data from both surface and upper sir observations. Hourly results from 2015 through 2019 (24 hours per day, 365 days a year – as available) were compiled and formatted for use in US EPA's AERMOD.

The results of the above, five-year, hourly modeling was a one hour maximum result of 53.7 ug/m^3 at the commercial site located immediately east of the site. Two sites to the east are also residences (in industrial zones) with the highest hourly results of 51.7 ug/m^3 and 46.9 ug/m^3. The results of the above, five-year, 24-hour modeling was a maximum result of 21 ug/m^3 for the commercial site located immediately east of the site. Two sites to the east are also residences (in industrial zones) with the highest 24-hour results of 20.1 ug/m^3 and 18.9 ug/m^3. These results are well below (14% of) the 24 hour average PM_{10} 150 ug/m^3 N/SAAQS standard. No mitigating measures were assumed in the modeling. As such, if "dust control" measures are implemented, the results will be less than predicted.

Facility Air Quality Impacts

As described above, no significant air quality impacts related to the proposed facility are anticipated as a result of the buildout of the Project. Dust will be controlled on an as-needed basis by lightly watering down the work areas. Within the facility, the watering truck, pre-set ground sprinklers and/or dust-suppressing water-atomizers will operate periodically to suppress dust. However, the application of water from these sources will not be in sufficient volume so as to create runoff.

Construction Pollutant Screening

The short-term use of heavy equipment operations will result in a temporary, minor increase in pollutant emissions from various equipment used in the construction process. However, the major concern during the construction operation will be the control of fugitive dust during site clearing, excavation, demolition grading and blasting operations. Fugitive dust is essentially airborne soil particles caused by heavy equipment operations entraining the freshly exposed soil into the air. To a lesser extent, some fugitive dust emissions will arise from wind erosion of the exposed soils.

All construction related air quality impacts will be of relatively short duration. Best construction management practices will be employed to reduce soil erosion and possible sources of fugitive dust. This generally includes the daily use of water/spray trucks in dry periods, anti-tracking pads at construction entrances, street sweeping at the entrances as needed and adherence to a Storm Water Pollution Prevention Plan (SWPPP), which provides Erosion and Sediment Control.

Increases in pollutant emissions can, in some cases, result from construction traffic en route to a project site. Construction traffic, specific to this project, is temporary and is not

anticipated to decrease existing air quality. Per 40 CFR § 93.123 - Procedures for determining localized CO, PM10, and PM2.5 concentrations (hot-spot analysis), PM^{10} and $PM^{2.5}$ analysis is required for projects that "(ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project." Examples of these projects include bus or rail terminals and the proposed project traffic will not approach these categories. The proposed action will not result in a significant increase in the number of diesel vehicles. However, efforts will be maximized to reduce haul distances, minimize idling, use alternative fuels, use hybrid equipment or retrofit construction equipment to reduce the potential of impacts to air quality during the construction phase of the project.

Trucks, compressors, cranes, excavators and other equipment will be maintained and in good working condition and turned off when not in use. This will reduce the idling of unused equipment in adherence of state regulations as cited above. Reduced idling will reduce potential air pollution.

As a result of the findings, no further analysis in regard to potential air quality impacts due to construction is necessary as it would not result in a significant or extended impact on air quality as a result of the project.

Conclusions

In review of mobile source screening guidelines of The Environmental Manual (TEM) and point/surface AERMOD dispersion modeling, no further air quality analysis should be required at this time for the Project as it would not result in a significant increase in impacts to air quality.

Dust

Site construction may generate fugitive dust during earthwork, particularly if there are dry conditions and potential for wind-blown dust. The site operation could also potentially generate dust as a result of pavement and concrete crushing and screening equipment, and heavy vehicle and equipment traffic on the site.

Site construction will employ dust control measures as outlined in **Section 1.5.1** of this DEIS. Further, as indicated in **Section 1.5.2**, the operations manager will be responsible for all operational activities on-site during material processing. Measures will be taken prevent/reduce wind-blown dust. Dust controls will involve using an on-site water truck. Water will be provided from the on-site private well, and will be stored for use on-site. Stored water will be used in spray form to wet dry surfaces that may cause fugitive dust during dry periods and wind events.

2.4.3 Proposed Mitigation

- Preliminary dust mitigation measures may include, but not necessarily limited to:

    - Stabilization of site driveways and site accesses to reduce dust during demolition, excavation, filling, grading, construction, and future activities associated with material processing operations. Examples include installing antitracking pads, applying two-inch+ stone groundcover over bare soil and providing a small mountable berm at the site entrance/exit during construction, and stabilizing proposed driveways with recycled concrete aggregate ("RCA") as proposed.
    - Limit clearing to only what is necessary using project limiting fences, if necessary, during site clearing and site preparation and construction. This will also prevent unnecessary encroachment into perimeter buffer areas and ensure that adequate yard setbacks, vegetated buffers, and screening is maintained.
    - Properly phase site work to reduce the total land area that will be disturbed/exposed to the elements at one time.
    - Comply with any requirements for a SPDES General Stormwater Construction Permit, SWPPP (if required), and Erosion Control Plan. Implement stormwater, erosion, sedimentation, and dust controls such as installation of silt fencing around work areas and stockpiles and installing sediment traps and curb and grate inlet protection.
    - Designate an appropriate location for storing demolition, construction, and site operations vehicles, equipment, and materials to reduce unnecessary activity and disturbance in non-work areas.
    - Restrict heavy truck and equipment speeds on-site to 10 mph by posting speed limit signs along the driveway.
    - Revegetate or reseed areas that are presently cleared but will not be used for future work activities; consider the use of mulch in places such as planted areas to stabilize soil.
    - Periodically dampen soils on windy days, during heavy vehicle activities or as otherwise needed to keep dust down. Apply spray adhesives, if necessary, per plan, to address dust in work areas as needed.
    - Stabilize bank areas and revegetate or reseed adjacent exposed soils that are not within proposed work areas.
    - Establish a vehicle washout station on-site to remove dust and dirt from trucks prior to leaving the property.

SECTION 3.0
HUMAN ENVIRONMENTAL RESOURCES

3.0 HUMAN ENVIRONMENTAL RESOURCES

3.1 Land Use, Zoning and Plans

3.1.1 Existing Conditions

Land Use

Figure 3-1 depicts the land use categories of properties adjacent to and immediately adjacent to the project site, as well as of sites in the neighborhood. As can be seen, the land use category of the site is, though presently inactive, considered "Industrial." The following table describes the land uses of the properties abutting the site and, in the neighborhood.

Direction	Abutting Properties	In the Neighborhood
to the north	Manor Road, Utility Lines and Agricultural Use	Agriculture and Residential Use
to the east	Residential/Commercial Use (Roadwork)	Residential and Vacant Use
to the south	Middle Road, Limited Residential Use, Industrial/Commercial Use and Industrial Use (Suffolk Pre-cast/Suffolk Cement)	Industrial, Transportation (LIE Route 25 Interchange) and Recreational Use (Splish Splash)
to the west	Agricultural, Vacant and Industrial Use	Vacant Mined Land, Industrial Use, Twomey Avenue and Industrial Use (Suffolk Pipe and Manhole/Coastal Pipeline Products)

The pattern of land use near the site is dominated by agricultural uses to the north and west and industrial uses to the south and southwest (see **Appendix A-4**). The land use pattern is a function of the historic land use pattern established by market conditions, land ownership, business interests and zoning over time. The land use is best characterized as mixed agricultural and industrial use within intermittent commercial, residential and vacant properties.

Zoning

Figure 3-2 depicts the zoning designations of properties adjacent to the project site, as well as of sites in the immediate vicinity of the project site. As can be seen, the site is zoned Industrial A, which is the zoning category that the Town Board had determined is appropriate for the site as an outcome of its recommended land use for the site in its Town Comprehensive Plan (see below). The following table identifies the zoning classifications of the properties abutting the site and in the vicinity:

Direction	Abutting Properties	In the Vicinity
to the north	Agriculture Protection Zone	Agriculture Protection Zone
to the east	Industrial A	Industrial A
to the south	Industrial A	Industrial A
to the west	Industrial A	Industrial A

The zoning pattern in the area reflects the Town Comprehensive Plan as a function of a long established zoning pattern that has not been changed through comprehensive plan updates. The zoning immediately surrounding the site is divided at Manor Road to the north, where land to the north of Manor Road is Agricultural Protection Zone and land to the south of Manor Road is Industrial A district. This zoning pattern supports the land use as described above, with the site primarily surrounded by industrial use, with some commercial, non-conforming residential, agriculture and vacant land.

In terms of allowable uses under the site's Industrial A zoning, there are a variety of uses allowed in this district. As provided for in Article XXIII; Chapter 301; § 301-114 Uses, the following are permitted uses in the Industrial A district:

A. Permitted uses:
(1) Vocational schools.
(2) Warehouses.
(3) Lumberyards.
(4) Automobile body and fender repair shops.
(5) Agricultural production.
(6) All industrial uses are permitted in the Ind A Zoning Use District, with the exception of the following uses, which shall be prohibited:

Abattoirs
Acetylene gas manufacture
Ammonia manufacture
Asphalt manufacture
Bituminous paving material manufacture
Blast furnaces
Bleaching powder manufacture
Boiler-making
Brick, tile, terra-cotta manufacture
Carbon or lampblack manufacture
Celluloid manufacture
Chlorine gas or hydrochloric, nitric, picric, or sulfuric acid manufacture
Coal distillation, manufacture, or treatment
Curing or tanning of rawhides or skins
Disinfectant or insecticide manufacture
Distillation of bones
Dumps
Dyestuffs manufacture

Excelsior manufacture

Explosives or ammunition manufacture

Fat rendering or manufacture of greases or oils

Feed manufacture

Felt manufacture

Fertilizer manufacture

Fireworks manufacture

Garbage disposal dumps, landfills, incinerators, or transfer stations

Gas manufacture from coal, coke, or petroleum

Glue, size, or gelatin manufacture, where the process includes refining or recovering products from fish or animal refuse or offal

Grain drying

Junkyards, wrecking, or salvage yards

Linoleum or oilcloth manufacture

Linseed oil or turpentine manufacture

Match manufacture

Motor vehicles, dismantling, wrecking, or compacting

Offal or dead animal reduction

Oxygen gas manufacture

Paint, shellac, stain, or varnish manufacture

Paper, building board, cardboard, or pulp manufacture

Petroleum or kerosene distillation, refining, or derivation of by-products

Plaster, lime, cement, or plaster of Paris manufacture

Plastics manufacture

Rubber or synthetic rubber refining and manufacture

Rubber products manufacture

Sand and gravel quarrying and mining

Scrap metal yards

Shoe polish or stove polish manufacture

Smelting of copper, iron, lead, tin, or zinc

Soap manufacture

Soil or mineral removal, including sand mining, gravel and mining operations, asphalt and concrete plants

Steel furnaces, blooming, or rolling mills

Storage of noncontainerized combustible materials

Tar distillation

Vinegar or sauerkraut manufacture

Warehousing, storage, wholesaling, or sale of hazardous, dangerous, and explosive materials such as acids, gases, ammunition, fireworks, and explosives

(7) Building trade shops.

Section 3.1.2 will address the proposed project's consistency as a permitted use in the Industrial A district.

Land Use Plans

Town Comprehensive Plan (November 2003) - The following description of the genesis, reasons for, and preparation of the Town Comprehensive Plan has been taken from that document[1].

1. INTRODUCTION

Riverhead is a community rich in natural, historic, and scenic resources that is experiencing powerful forces of change. Riverhead continues to be the most important agricultural community in Suffolk County and one of the most important in the State. Riverhead's unique landscape also includes waterfront areas on the Great Peconic Bay, Flanders Bay, and Long Island Sound; portions of the Central Pine Barrens and the scenic Peconic River; and distinctive bluffs and woodlands along the Sound. The Town has an historic Main Street and hamlet centers, like Jamesport and Aquebogue.

With change, there are both opportunities and risks. Enterprise Park at Calverton promises to attract new businesses and jobs. Increasing tourism is drawing more visitors into downtown, Jamesport hamlet, and the wine country, where they spend money on overnight accommodations, cultural events and attractions, meals, and specialty items like antiques and crafts. Retailers along Route 58 are drawing shoppers from the entire East End, as well as in the western part of Suffolk County.

At the same, local residents know the downsides of growth all too well: disappearing open space, increasing threats to natural resources, worsening traffic congestion, overburdened community facilities, proliferation of unattractive sprawl and strip development, and worst of all, a diminishment of the Town's unique countryside character that attracted so many residents in the first place.

Recognizing these opportunities and pressures, the Town Board, with the assistance of the Planning Board, embarked upon the preparation of this Comprehensive Plan in the late 1990s. Early on, the Town established a goal to develop a plan that fully takes into account the concerns of the community and strives for fair, balanced solutions to complex problems. Working with local consultants, the Town coupled extensive research and field work with a multifaceted community outreach process.

[1] Page 1-1, Town of Riverhead Planning Board, et al, Town of Riverhead Comprehensive Plan, November 2003.

1.2 Contents of the Comprehensive Plan

The Comprehensive Plan is composed of eleven different elements, each dealing with a distinct topical area of the community. Each element contains goals and recommendations specific to that topic area. The Proposed Land Use Plan weaves together those goals and recommendations into a single, coherent plan for development and conservation, providing a snapshot of what the Town would be expected to look like in the future. The elements of the plan are organized as follows:

Chapter 2: Land Use Element
Chapter 3: Agriculture Element
Chapter 4: Natural Resources Conservation Element
Chapter 5: Scenic and Historic Resources Preservation Element
Chapter 6: Business Districts Element
Chapter 7: Economic Development Element
Chapter 8: Housing Element
Chapter 9: Transportation Element
Chapter 10: Utility Service Element
Chapter 11: Parks and Recreation Element
Chapter 12: Community Facilities Element

Goals and recommendations to implement each of the eleven above-named plan elements were prepared for and included in the Town Comprehensive Plan. It is noteworthy that the Plan does not include an Industrial Element, despite that fact that does exist some substantial industrial property in the Town. Further, the Plan designates the subject site for development conforming to its Industrial A zoning classification (see **Figure 3-3**).

The Plan has eleven Elements, of which three apply to the proposed project. These elements are presented in **Section 3.1.2** below, and are followed by brief discussions as to the project's conformance to each.

Town Solid Waste Management Plan – During preparation of the initial submission of this DEIS in late 2020, efforts were made to obtain the Updated Town Solid Waste Management Plan, pursuant to the Final Scope. The Final Scope references a description and discussion of the project's conformance to the Update to the Town's Solid Waste Management Plan, which was in preparation at that time by the office of the Town Engineer, and would be available from the Town Sanitation Department, when completed. NPV contacted the Town Engineer directly, and prepared a confirming letter dated September 4, 2020 to document the efforts to obtain the Updated Solid Waste Management Plan for review as part of this DEIS. Through verbal and written communication, it was determined that there was no document available for review at that time. These findings are memorialized in the September 4, 2020 letter which is provided in **Appendix I** with relevant excerpts provided below:

Nelson Pope Voorhis is presently preparing a Draft Environmental Impact Statement (DEIS) for the above-referenced project, which is an asphalt and concrete crushing and recycling facility on a developed 6.68-acre site. The contents of the DEIS were specified by the Town Planning Board, and include a description and discussion of the project's conformance to the Update to the Town's Solid Waste Management Plan, which is currently in preparation.

Consequently, this office visited the Town's website on Thursday, September 3, 2020 but was unable to find any Town documents on this issue. Therefore, I called the Sanitation Department and spoke with you to obtain verbal input on this matter. You said that there is presently no Update document extant, and that the Sanitation Department is presently discussing the Update with the NYS Department of Environmental Conservation.

For purposes of inclusion in the DEIS, please review my above description of the status of the Update to the Town Solid Waste Management Plan and provide any corrections or more recent information on this matter.

No further correspondence or communications were received from the Town Engineer subsequent to the conversation and letter referenced above.

During preparation of this revised DEIS in mid-2021, the Town did complete its *Draft Local Solid Waste Management Plan Update (2020-2029).* As stated in the DLSWMP, *"The Town of Riverhead's last LSWMP that was approved by the New York Department of Environmental Conservation (NYSDEC) was dated 1990. The Town developed a DLSWMP in 2009 that was never approved by the NYSDEC."*

The DLSWMP does not specifically address the existing C&D processing facilities operating as private businesses in the Town. With respect to C&D debris projections, the DLSWMP does state:

> Separate 10 year waste projections were not developed for C&D debris in the Town of Riverhead. Residential C&D is disposed with MSW [municipal solid waste] at the Town of Brookhaven Landfill by curbside pickup through the Town contracted waste hauler. C&D collected by the Town Sanitation Department is disposed of at Crown Recycling, located at 865 Youngs Avenue in Calverton. *All other non-residential C&D is handled and disposed of by the individual generator.* [emphasis added]

With respect to Town Code regulations affecting the processing of C&D debris, Page 27 of the DLSWMP states:

> 4.1 Enforcement of Local Laws Addressing Solid Waste and Recycling
> Zoning changes in 2005 (Town Code 235-5; Hazardous Materials; Waste Disposal Sites) state, *"The construction and operation of waste disposal centers to store, collect or dispose*

of by-product materials shall be prohibited from all zoning districts within the Town of Riverhead."

Environmental Justice Areas - This DEIS also documents potential impact with respect to Environmental Justice Areas, as required in the Final Scope. As shown in **Figure 1-5**, the subject site is not within any NYSDEC-designated Potential Environmental Justice Area; the nearest such area is located about 1.8 miles to the southeast, on the south bank of the Peconic River, in the Town of Southampton. As a result, there is no impact with respect to an environmental justice area.

3.1.2 Anticipated Impacts

Land Use

The proposed project is an industrial use within an industrial zone of the Town of Riverhead. The subject site is vacant (except for an existing residence), and is proposed to be used for a use which has been deemed to conform to zoning as documented in **Section 1.2.1**. Consequently, the proposed use is a permitted use in the Industrial A zone. Other commercial uses

The proposed project is not out of character with other uses in the immediate vicinity of the subject site, particularly to the south where extensive industrial-zoned lands are occupied by Suffolk Pre-cast and Suffolk Cement. The Roadwork vehicle operation and storage site is directly south of the subject property and the Suffolk Pipe and Manhole/Coastal Pipeline Products site is west of the subject property, just west of Twomey Avenue. Other uses in the area include mixed commercial and non-conforming residential use, agricultural use and vacant land south of Manor Road and in the Industrial A district. North of the site is Manor Road which services the industrial area between Manor Road and the LIE/Route 25, and the LIPA high tension wires, beyond which is agricultural use. The Land Use map included as **Figure 3-1** includes a ¼-mile radius. The dominant land uses within ¼-mile include the uses described above, specifically, industrial use, vacant land, agricultural land, as well as utility, transportation, residential and institutional use.

It is noted that there are five (5) residential homes east of the subject site between Manor Road and Middle Road. These homes are non-conforming uses in the Industrial A district, and several appear to support commercial operations. Specifically, the large building on the site immediately east of the subject site, and an open barren soil yard area on the second property east of the site, both appear to support contractor related uses.

Based on the mixed land use character of the area, and the predominant industrial use to the south, the proposed project is not inconsistent with or out of character with the dominant land uses in the area, that being industrial/commercial use. The proposed project is also compatible with transportation use, utility use and agricultural use to the north of the site. There are no

nearby residential uses except those non-conforming residential uses within the Industrial A zone, several of which support contractor uses on the properties.

It is noted that the south part of the site will remain consistent with its current character which includes a residence that will be converted to an office use and wooded area. These features are located far from any residence to the east, and the land use character along Middle Road and adjoining the site to the east and west will remain largely unchanged. The office will be located 142.8 feet from the east property line, 231.9 feet from the south property line (Middle Road) and parking for the office will be located 135.7 feet from the west property line. The north part of the property will include the existing frame barn/garage that is located 77.5 feet east of the west property line, and site access to Manor Road will be provided with a perimeter access driveway that is 35 feet south of Manor Road, 25 feet east of the west property line, and 25 feet west of the east property line. This places the process and stockpile areas well within the north part of the subject site, and more than 50 feet from any property line. As a result of the separation of the active industrial use areas from adjoining uses and distance to any residential uses, the proposed project is compatible with the Industrial A zoning and land use character of the area.

Future land use in the vicinity of the site is expected to follow the existing pattern with conversion of non-conforming residential uses to uses more consistent with the Industrial A zoning. The remaining properties in the area are expected to either remain vacant or agricultural, or will be available to be used for industrial purposes consistent with those permitted and special permit uses (where such permits are granted).

Zoning

As the proposed project does not involve a change of zone, there will be no impact on the site's zoning or on the pattern of zoning in the vicinity. Further, as discussed below, the Town ZBA has issued an Interpretation of the Town Zoning Code that establishes the proposed use as an allowed use in the Industrial A district.

Table 3-1 lists the various building bulk and setback requirements of the Industrial A zoning district, along with the pertinent quantity of the proposed project. As can be seen, the proposed project will conform to all of the applicable requirements of the Industrial A district.

Town Code Article XXIII Industrial A Zoning Use District Chapter 301; §301-114 A. Uses, identifies a variety of uses allowed in the Industrial A district as outlined in **Section 3.1.1**. It is noted that §301-114 A.(6) identifies certain "Prohibited Uses" that are outlined in the Final Scope and include: Garbage disposal dumps, landfills, incinerators, or transfer stations; soil or mineral removal, including sand mining, gravel and mining operations, asphalt and concrete plants and dumps. The proposed use is not reflective of any of these prohibited uses.

Table 3-1
CONFORMANCE TO BULK, HEIGHT & SETBACK REQUIREMENTS
Industrial A Zoning District

Parameter	Required	Provided
Town Zoning Code Section 301-115		
Lot Area, Minimum (SF)	80,000	291,128
Lot Width at Front Street, Minimum (feet)	200	232±
Building Lot Coverage, Maximum without Sewer (%)	40	<40
Impervious Surfaces, Maximum (%)	70	<70
Building Height, Maximum (feet)	30	<30 feet (2 stories)
Floor Area Ratio, Maximum without Sewer	0.40	<0.40
Front Yard Depth, Minimum (feet)	100	231.9
Side Yard Depth, Minimum, Interior Lot (feet)	50	142.8
Side Yard Depth, Minimum, Combined (feet)	100	>200
Rear Yard Depth, Minimum (feet)	75	>75
Town Zoning Code Section 301-231		
Off Street Parking	1 space/400 SF (14 spaces)	14 spaces (includes 3 landbanked)

As discussed in **Section 1.2.1**, the proposed industrial use (i.e., asphalt and concrete crushing and screening operations) is not specifically allowed as-of-right or by special permit in the Industrial A district. In such a case, a variance would be necessary from the Town ZBA under Town Zoning Code Section 301-114 A, as confirmed by the Town Chief Building Inspector. The applicant appealed the Inspector's determination and, on April 12, 2018, the ZBA issued its Interpretation letter (see **Appendices B-4 and B-5**) indicating that, while the proposed concrete crushing operation is not specifically permitted in the Industrial A zone, it is also not specifically prohibited in that zone. As a result, no ZBA variance is necessary for the proposed project, which is considered an allowed use in the Industrial A zoning district.

At present, and as documented in **Section 3.1.1**, there is no Solid Waste Management Plan Update available for review. If such plan were available, it is not possible or appropriate to determine the intent of the drafters of either this or the Town zoning code at the time they were prepared as the written language of the plan and code is what governs. In the case of language that is determined to be unclear, the appropriate means for resolving interpretation of code provisions is to seek a determination from the Town ZBA. This was done in the case of the proposed project, and it was determined that the proposed use is not prohibited, and therefore, no ZBA variance is necessary for the proposed project. As a result, it is the determination of the Town that the proposed project is considered a permitted use in the Industrial A district.

Land Use Plans

Town Comprehensive Plan (November 2003) - Following are brief discussions as to whether and how the project conforms to the goals and recommendations of each of the Town Comprehensive Plan elements.

Land Use Element

Riverhead is already one of the most dynamic and exciting places on Long Island, and in the future, it will become a preeminent center for tourism, agriculture, business, shopping, recreation, and living on the East End. As in recent years, the Town will continue to experience growth and change in coming years. Economic development and environmental conservation should be balanced; to not only sustain expansion of Riverhead's strong economic base, but also promote livable communities, preserve farmland and agricultural activity, and protect Riverhead's natural, historic, and scenic resources. In the future, Riverhead should have the following characteristics:

- A revitalized downtown that is retooled for tourism, with unique cultural attractions, a bustling Main Street, protected historic buildings, and an expanded and improved waterfront park;
- Walkable hamlet centers that serve as centers for community life and provide day-today shopping and services for residents, as well as specialty shopping for tourists.
- Attractive residential neighborhoods clustered around downtown, the hamlet centers, and north of Sound Avenue;
- A thriving commercial corridor along Route 58, with reduced traffic congestion and an attractive visual quality;
- A dynamic office/industrial center in and around Enterprise Park at Calverton;
- Regional recreational and entertainment facilities at Enterprise Park at Calverton;
- A greenbelt of farmland and open space with a prosperous agricultural industry, where housing is clustered and open space permanently preserved;
- A system of parks and greenways that provide abundant recreational opportunities for all age groups;
- Improved access to waterfront areas for recreational purposes, including the Peconic River, Flanders Bay, the Great Peconic Bay, and Long Island Sound;
- Protected streambeds, wetlands, woodlands, bluffs, beaches, and other natural areas, including habitat areas for plant and animal species;
- A strong Town identity and heritage, with protected scenic vistas and beautifully restored and reused historic buildings;
- A reputation as a place that has the best of both the past and the present, and the best of both natural and built environments.

The proposed project conforms to the industrial land use designated for the site by the Town Comprehensive Plan (as well as to the zoning category in which the site is designated by the Plan).

Agricultural Element

Riverhead's agricultural industry will continue to play a leading role in the Town's economy and shape the Town's character and way of life. The Town will work with farmers and landowners to support farm business and promote farmland preservation, and the Town will strive do so in manner that respects private property rights, protects landowner equity, and ensures flexibility and choice in the use of farm property.

Not applicable. The proposed project will neither increase nor decrease the amount of farmland in the Town, nor will it impair any existing or potential use of land for agriculture. Analysis in ***Section 2.1.1*** *of this document suggests that the limited amount of soils on the site that could support farming would have limited utility for this purpose., particularly considering the unauthorized clearing and soil disturbance that have occurred*

Natural Resources Conservation Element

The natural resources present in Riverhead today - including stream corridors and wetlands, the Central Pine Barrens region, and the aquifer that provides high quality water to the Town - are integral to Riverhead's long-term health, safety, and well-being, as well as its identity and economic vitality. As such, the ecological integrity of Riverhead's natural resources must be maintained and protected.

Not applicable. The project site has no significant natural features or resources on the site to protect. The project site is a previously-developed residential property in an area zoned for and dominated by industrial facilities. The nature of the proposed project is such that it would not attract public visitation to the site or the area.

Scenic and Historic Preservation Element

Riverhead has a distinctive scenic and historic character, comprised of farmland, open space, historic hamlet centers (including downtown Riverhead), historic structures and sites, and unique natural resource areas such as the Pine Barrens. Because these resources play a key role in maintaining Riverhead as a desirable tourist destination and as an attractive place to live and work, these resources should be protected and carried forward into the Town's future, as development continues to occur.

Not applicable. The subject site does not contain any of the character resources noted in this element of the Plan as it is a previously developed, currently vacant industrial site awaiting redevelopment. The site does not present attractive scenic vistas, and would be hidden from view of outside observers by planting of a substantial landscaped perimeter buffer.

Business Districts Element

Commercial retail development should be well planned on a site basis instead of sprawled along Riverhead's roads. Downtown and hamlet centers should be promoted as centers for specialty shopping and civic life, building on their historic and pedestrian character. Route 58 should absorb most of the demand for regional and destination retail uses and thus should continue to be a mainstay for generating jobs and tax revenue.

Not applicable. The proposed project is not in the downtown area, and is in fact located distant from such an area by virtue of its unattractive characteristics such as noise, dust and truck traffic.

Economic Development Element

With the increasing popularity of the North Fork as a tourist destination, Riverhead should develop attractions that can capture a significant portion of the emerging tourist industry in general and agro-tourism in particular. At the same time, 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.

The proposed project will not add to any emerging tourist economy or activity in the Town, but will incrementally increase the industrial economy of the Town by increasing industrial employment and by producing construction-related building materials for local development.

Housing Element

As development pressures continue to increase, the Town should promote the preservation and development of work force housing for senior citizens, young adults, first-time homebuyers, seasonal workers, low-income individuals and households, and special needs populations. Work force housing should be distributed throughout the Town, should be in locations accessible via transit, and should have a design and be of a quality and character that are indistinguishable from that of market-rate housing.

Not applicable. The proposed project is industrial in nature and does not include any new residential development. As the residence on the site is unoccupied, unmaintained and in a decrepit condition, its reuse as an office space for the proposed industrial facility will not reduce the amount of residential units in the Town.

Transportation Element

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. Downtown and the hamlet centers should be oriented to transit, pedestrians, and bicycles, and commercial sites through Riverhead should be accessible via bus, by bike, and on foot.

Not applicable. The project is expected to generate minimal amounts of vehicle traffic to and from the site and therefore upon local roadways. In addition, due to its location near several regional roadways, traffic to and from the site would be able to easily leave the area altogether. Traffic engineering analysis indicates that the vehicle trips generated by the proposed project will not have a significant impact on roadway operations; the findings of

the TIS for all of the intersections studied indicates that there is no significant traffic impact and no mitigation measures are proposed.

Utility Service Element

Utility infrastructure is critical to the health, safety, and welfare of the community. Water, sewer, electric, natural gas, and telecommunications facilities are relied upon by residents and businesses for day-to-date activity and contribute to the Town's economic wellbeing. Utilities should continue to be expanded to meet Riverhead's growing needs. At the same time, the Town should strive to limit any potential negative impacts from new infrastructure on the natural environment or Riverhead's historic or scenic resources.

The project site is presently served by only one utility: electricity (from PSEGLI). It is served by an on-site private well for potable water, and is not served by National Grid (for natural gas), nor is it connected to the Riverhead Sewer District (the residence has a septic system). In this way, the potential impacts on these utility providers will be minimized.

Parks and Recreation Element

Parks and recreational facilities provide Riverhead residents and outdoor enthusiasts regionwide with opportunities to exercise, engage in team sports, and to access and experience the natural environment. Parks also provide balance to the built-up areas of the Town, adding to the visual character and quality of life in the community and enhancing property values. The Town should expand and improve parks in all parts of Riverhead and should establish a greenway system that links these parks together.

Not applicable. The proposed project will not impact any public recreational sites or facilities, as it is not located near any such resources.

Community Facilities Element

Because community facilities protect public safety and enhance the quality of life in Riverhead, they should be improved and/or expanded to meet growing needs. At the same time, the Town should seek opportunities for the efficient and multiple use of facilities, in order to limit increases in costs. New facilities should be conveniently sited in or near residential neighborhoods and hamlet centers, where they can easily be accessed by residents and contribute to the sense of community.

Not applicable. The nature of the proposed project is such that it would not tend to require or utilize any community facilities (except for safety/security and/or medical emergencies).

The proposed project conforms to the Plan's recommended use for the site; the Plan recommended that the subject site be developed with an industrial use in conformance to the allowed uses in the Industrial A zone.

Town Solid Waste Management Plan – As noted in **Section 3.1.1** above, the DLSWMP notes that Town Code Section 235-5 prohibits the construction and operation of waste disposal centers that store, collector dispose of by-product materials in all zoning districts in the Town. This would effectively prohibit the proposed project in the Town, as well as force the closure and

removal of all similar facilities in the Town. However, Town Code Chapter 235-2 defines a *"waste disposal center"* as follows:

> A facility where nuclear waste is disposed of in such a way as to be permanently isolated from the environment for a period of time that is necessary for such wastes to become harmless, even if such facility contains a means for retrieving such wastes.

As the proposed project will not handle nuclear wastes, and will not handle hazardous wastes, Town Code Chapter 235 does not apply, so that the above recommendation of the DLSWMP also does not apply to the proposed project.

Section 1.2.2 addresses other Town solid waste provisions, specifically, Town Code Chapter 273 which addresses Solid Waste in the Town of Riverhead. The Applicant seeks to operate the proposed use on site in conformance with this Local Law. Under purpose, Section 273; §273-2, the code indicates the desire for "…increased efforts to recover and reuse recyclable materials will protect and enhance the Town's physical environment and promote the health and safety of persons and property within the Town." In keeping with the purpose outlined in the code, the project sponsor will operate the facility in an environmentally sound manner, and will add to economic activity within the Town. This DEIS further examines the operation and environmental protection measures, and therefore addresses many aspects of Chapter 273. Toward this end, the applicant also recognizes the need for NYSDEC permitting under Part 360. As noted in **Section 1.2.1**, there are no pending violations or enforcement actions with regard to the site. Town enforcement matters have been resolved, and the NYSDEC Work Plan has been implemented. A NYSDEC Part 360 permit has been applied for and is pending (see **Appendix C-2**).

Environmental Justice Areas - As noted in **Section 3.1.2**, the subject site is not within any NYSDEC-designated Potential Environmental Justice Area; the nearest such area is located about 1.8 miles to the southeast, on the south bank of the Peconic River, in the Town of Southampton. As a result, there is no impact with respect to an environmental justice area.

3.1.3 Proposed Mitigation

- Potential adverse impacts on the residence adjacent to the east from views of the industrial operations on the subject site will be mitigated by maintaining substantial setbacks, and retaining the existing natural vegetation on the south part of the subject site.
- Additionally, the proposed project will maintain a minimum separation of 45 feet from the property line to the east for any industrial operations.
- The project conforms to the bulk requirements of the Industrial A zoning district, so that no mitigation with respect to zoning is necessary or proposed.
- The proposed project conforms to the land use recommended for the site by the Town Comprehensive Plan. Thus, no additional mitigation in this regard is necessary or proposed.

3.2 Community Character

3.2.1 Existing Conditions

Visual

The photographs in **Appendices A-1 and A-4** depict the appearance and condition of the subject site and the immediate vicinity, respectively.

As can be seen, the site is densely vegetated along its perimeter, which obscures views deep into its interior, particularly from Middle Road and Manor Road. The northern half of the site's interior has been subject to some clearing, allowing some views across the site. The southern portion of the site, where the residence and associated structure had been located, remains heavily vegetated. In addition, much of the site's interior displays scattered debris, garbage and unused construction equipment, abandoned automobiles and storage containers. Finally, as the site is presently unoccupied and unmaintained, the entire property is unkempt and unattractive.

Views from and along the site's bordering roadways show that the area is generally rural in character to the north, with a mix of residential sites (with some used for contractor/storage activities and a commercial building), vacant land and farm fields. To the south, the character changes to one of a more industrialized area with concrete manufacture, pipeline product manufacture, storage yards, product distribution, mined lands with barren soil, and related industrial activities.

There are no streetlights along the segment of Manor Road adjoining the subject site. Streetlights are present at the intersections of Manor Road and Middle Road to the east, and Manor Road and Twomey Avenue to the west. There are intermittent streetlights and lighting to deter vandalism along Middle Road south of the site near the industrial operations. These roads serve to access the industrial areas south of Manor Road, and are traversed by vehicles with headlights at night. The primary operations associated with industries to the south occur during the daytime and as a result, night lighting of sites provides security but is not obtrusive. Areas subject to agricultural use and vacant lands are devoid of lighting, and residential use areas provide typical residential night lighting.

Noise

The following information on general noise characteristics and analysis, as well as a description of the existing noise environment of the subject site, has been taken from the Noise Analysis prepared for the proposed project. The full analysis document is contained in **Appendix G.** (Note: figures, tables and Appendices referenced below are the references contained in the Noise Analysis provided in Appendix G.)

The purpose of this analysis is to evaluate sound levels that may occur as a result of the Project. Mitigation and assessment of significant noise impacts, if any, will be addressed accordingly.

1.2 **General Sound Characteristics**

Sound is created when changes of pressure (waves) are produced in the air. These pressure changes are created at many frequencies (i.e., spacing of the waves). Sound is received and perceived when the human ear reacts to these pressure changes. The pressure changes are expressed as decibels (dB) depending upon the power of the source as expressed in watts of power (with a reference of 1 picowatt or 10-12 watts). Frequency varies depending upon the rate at which sound pressures fluctuate in a cycle over time. This is measured in hertz (Hz) with one Hz equaling 1 cycle per second. The frequency of the wave (in Hz) determines the perceived pitch of the sound. The average person's ear can detect sounds ranging from 20 to more than 10,000 hertz (Hz). Each frequency is detectable at different pressure levels and so, the system for sound measurement which mimics the human ear is an A-weighted decibel system or dB(A)s. The human ear can barely detect a 3 dB(A) change in sound levels. A 6 dB(A) increase results in a generally audible change. A 10 dB(a) change in sound levels is approximately a doubling of sound wave pressure. As a point of reference, human conversations at a distance of two to three feet occurs at a sound pressure level (SPL) of 60 dB(A) with a calm voice to 75 dB(A) with a raised voice (USEPA's Community Noise, 1971).

1.3 **Sound Monitoring**

Sound/noise measurements on and around the project site were made using a Cirrus Research plc CR:831C noise meter, which was set to measure A-weighted decibel levels as a mimic of the average human ear. Ambient noise levels were measured from several locations on and adjacent to the project site. Figure 2 represents the mapped measured locations on a current aerial. Table 1 depicts the measured locations.

With regard to the methodology of the ambient noise analysis, there is no specific mathematical methodology that was applied to the existing, ambient noise measurements. The readings are straight forward, taken in 10-minute durations and were monitored at the listed locations for existing ambient conditions. The measurements occurred on August 25, 2020 during the off-peak AM scenarios in sunny conditions, with winds between 0 and 10 miles per hour with an average high temperature of 81 degrees Fahrenheit (F). The monitored sound levels are presented in Table 2 (at the rear of the text) and in Appendix A of this report.

The measured levels generally relate to the local industrial uses and vehicle noise at locations measured along Manor Road and Middle Road. Sound measurements were recorded largely during times when existing sound/noise sources were expected to experience the typical average and "peak" in the sound/noise environment. This was determined to occur mid-morning.

Sound levels, in the existing condition, were measured along site's northern property boundary at Location A. Sound measurements from the proposed project's northern location showed an L(eq) of 63.5 dB(A) in the AM hour, August 25, 2020. The noise measurements at this location were taken at the proposed entrance/exit along Manor Road.

The sound levels, at this location, result from the existing traffic on Manor Road as a result of the local industrial uses.

Sound levels, in the existing condition, were measured along site's proposed south entrance/exit at Location B. Sound measurements from the proposed project's entrance showed an L(eq) of 64.2 dB(A) in the AM hour, August 25, 2020. The noise measurements at this location were taken at the proposed entrance/exit along Middle Road.

The sound levels, at this location, result from the existing traffic on Middle Road as a result of the local industrial uses.

Sound levels, in the existing condition, were measured along Middle Road in the vicinity of existing commercial/industrial uses at Location C. Sound measurements from this location showed an L(eq) of 58.9 dB(A) in the AM hour, August 25, 2020. The noise measurements at this location were taken at approximately 150 meters south of the proposed entrance/exit on Middle Road.

The sound levels, at this location, result from the existing traffic on Middle Road as a result of the local industrial uses.

Sound levels, in the existing condition, were measured along Middle Road in the vicinity of existing residential dwellings for Location D. Sound measurements from the proposed project's entrance showed an L(eq) of 60.6 dB(A) in the AM hour, August 25, 2020. The noise measurements at this location were taken at approximately 120 meters north of the site's proposed entrance/exit on Middle Road.

The sound levels, at this location, result from the existing traffic on Middle Road as a result of the local industrial uses and limited residential community.

A search for sensitive receptors was undertaken during monitoring efforts. According to the EPA, sensitive receptors are defined by the EPA as "…include, but are not limited to, hospitals, schools, daycare facilities, elderly housing and convalescent facilities." A few notable receptors, such as Splish Splash (1.4 miles), Riverhead Charter School (1.8 miles), All Saints Monastery (0.3 miles) and the Tanger Outlets (3 miles) were recorded as existing. There are no "sensitive" noise receptors (e.g., hospitals, libraries, etc.) in the vicinity of the project sites. To the extent receptors of any kind (commercial buildings, etc.) occur, they

too are already impacted as described/measured above by noise/sound levels from the local Town roads.

It should be noted that on August 11, 2020, B. Laing Associates, Inc. conducted sound monitoring efforts at a facility, to that which is proposed, located on Grand Boulevard, Westbury, New York. Four (4) samples were obtained around the existing facility and one (1) sample within the residential area to the south. This facility provides many of the same functions as the proposed facility at 1792 Middle Road. However, sampling results of the Westbury facility were determined to not be representative of the proposed site. This is due to the heavily traveled roadway on Grand Boulevard. Noise levels associated with vehicular traffic are a function mainly of traffic speed, vehicle mix (automobiles, medium trucks, heavy trucks) and volume. In this case, the local road was congested with truck vehicles that were in the vicinity for surrounding commercial/industrial uses. Thus, the volume of vehicles greatly affected the sound sampling results. This is not an accurate depiction of the existing site conditions or proposed conditions at the proposed Calverton, New York location.

Results:
Noise monitoring data results are provided in Table 2. Evaluation of the recorded data reveals that the lowest ambient noise levels occurred along Middle Road at Sample Point C. This monitoring effort was conducted in the vicinity of the industrial yards. This is due to the lack of vehicle activity in this location during sampling efforts. Middle Road, a short local road, ceases south of the project location with no outlet. Sound levels were dominated by truck movement when active. Measurement reports/data sheets are located at the rear of this analysis.

Monitoring Location B, proposed Middle Road entrance, sound measurements presented the highest dB(A) levels in both the AM conditions. This is due to the vehicular activity along Middle Road during the monitoring efforts. Again, this location is dominated by trucks for the adjacent industrial uses. Sample Locations A and D also presented measured levels that are typical of routes located in commercial/industrial areas.

The ambient noise environment described herein is compared with the proposed site conditions in **Section 3.2.2**.

3.2.2 Anticipated Impacts

The subsections below address visual impacts and changes to community character. Existing area lighting and proposed lighting conditions are assessed. Detailed noise and vibration analyses have been completed, and potential impacts are addressed and mitigation is proposed. As noted previously, the subject site is not within or near an Environmental Justice area.

Visual

The visual character of the site will change as a result of the proposed project. Vegetation on the north part of the site will be removed to provide the necessary area for the proposed site use. Views toward the interior of the site will be possible from Manor Road and sites to the west of the subject site. These views will be screened using a berm, fence and landscape mitigation. Site grading is used to provide a 4-5 foot berm along the site's frontage on Manor Road and the land elevation descends toward the site and therefore naturally screens the property to views from the north. The northeast part of the project site adjoins an industrial-type building on the site to the east, and therefore, views to the interior of the site will be partially obstructed by this building. It is noted that the contractor yard east of the subject site on Manor Road is screened with a berm, fence and landscaping. The berm, fence and landscape mitigation will be used to screen views toward the site from the northeast. The south part of the site will remain largely unchanged. The Alignment Plan illustrates retention of wooded areas in the southeast and southwest parts of the site. The neighboring residence to the east will be screened by retaining existing vegetation in the southeast part of the site. No other residences immediately adjoin the site. The driveway will be improved to provide safe access to the office, but the visual character in this area will be largely the same as present and not out of character with the area in consideration of the existing visual character. Overall, the proposed use is in character with the industrial areas to the south, but will retain more vegetation and provide more mitigation screening to enhance the visual character of the site.

Site operations will occur during daytime hours. As a result, night lighting for facility operation is not needed. The office and parking area will have security lighting that will be directed downward and into the site in compliance with dark sky lighting principles. The yard area will similarly be lit only for security purposes, and will include downcast lighting that will not extend beyond the property. All proposed lighting will be in compliance with Part 3 Supplementary Regulations, Article XLIX Exterior Lighting as contained in Chapter 301; § 301-256-264 of the Town Zoning Code. More specifically, lighting will conform with 301 Attachment 8 Guidelines for Exterior Lighting Figures 1-3 and 301 Attachment 9 Guidelines for Exterior Lighting Tables 1-3.

The proposed project has been assessed in terms of the visual environment and site lighting. Given the varied conditions present in the area of the site, specific analysis of potential impacts has not identified any significant quality of life impacts with respect to the proposed project. It is noted that the subject site is zoned Industrial A, and the proposed use is a permitted use in this district. Section 5.0 assesses alternatives to the proposed project and relative impacts as compared with the proposed project.

Noise

The following information on the noise analysis of the proposed project has been taken from the Noise Analysis, contained in **Appendix G.** (Note: tables referenced below are the tables contained in the Noise Analysis provided in Appendix G.)

3.1 **Traffic Noise Analysis**

As provided above, the proposed project site will experience varied sound levels as a result of existing vehicular traffic from local industrial/commercial land use. Noise levels associated with vehicular traffic are a function mainly of traffic speed, vehicle mix (automobiles, medium trucks, heavy trucks) and volume. Posted vehicle traffic speeds will not be affected by the Proposed Action. Vehicle mixes are also anticipated to be essentially the same. Therefore, any changes in traffic related noise will be a function of the change in volume. For example, a doubling of traffic volume (assuming speeds and vehicle mixes do not significantly change) equates to an increase in noise of 3 dBA utilizing this screening type approach per Approximate Addition of Sound Levels in NYSDEC's Assessing and Mitigating Noise Impacts. A 3-dBA increase is unnoticed to tolerable according to the same guidance in Assessing and Mitigating Noise Impacts. See Table 4.

According to the FHWA, noise impact will occur when projected sound levels approach or exceed abatement criteria (see Table 4 above) or when noise levels substantially exceed existing ambient levels in the area.

That portion of local Town roads in the immediate vicinity of project site will experience a slight increase in traffic as a result of the Asphalt and Concrete Crushing and Screening Facility development and other background traffic growth. Traffic analyses by Nelson & Pope Engineers and Surveyors, April 2020, were performed at this location, analyzing the proposed trip generation for the site improvements. In summary, the proposed project is projected to generate 15 trips (9 entering and 6 exiting) during the weekday AM peak hour, 15 trips (6 entering and 9 exiting) during the weekday PM peak hour and 18 trips (9 entering and 9 exiting) during the Saturday midday peak hour.

The traffic volume, as a result of the project, will result in noise level increases that would equate to unnoticed to tolerable per Table 4. This is because no doubling of traffic will occur as a result of the project. For example, traffic analyses by Nelson & Pope Engineers depicts existing peak AM 4 total at 125 vehicles at the intersection of Manor Road and Middle Road. This number consists of approximately 87.2% light vehicles and 12.8% trucks. The No Build scenario does not account for a traffic increase. The proposed trip generation would include 10 trucks and 5 light vehicles during peak hours. This compares to approximately 11% of Build scenario traffic volume of 138 for the intersection of Manor Road and Middle Road.

Existing ambient sound levels within the project vicinity were recorded, per Table 2, depicting an average of 63.5 dB(A) at the Manor Road project entrance. The sound levels, at this location, are a result from the existing traffic on the local road. The approximate addition of a 3 dB(A) increase (per Table 4B below) of sound with the proposed increase in traffic is considered unnoticeable to tolerable according to NYSDEC standards shown in Table 4.

As there will not be a doubling of traffic with the proposed action, no significant impacts of sound analysis are anticipated as a result of traffic growths. No changes are anticipated with vehicle speed or mix that would affect that conclusion.

It should be noted, access to the proposed project site will be provided through one full movement truck driveway on Manor Road and one full-movement driveway for employees on Middle Road. No truck access is anticipated on Middle Road and so, will avoid additional commercial vehicle sound impact to the residences located south of the Middle Road and Manor Road intersection.

3.2 **Operational Analysis**

The proposed project includes an asphalt and concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage to office and storage space. The proposed business would have two crushing/screening equipment stations and five asphalt/concrete stockpiles. Ten-foot deep buffers would be provided along the eastern, western and southwestern property boundaries and 20-foot deep buffers would be provided along the southeastern and northerly property boundaries. Existing vegetation in the southeastern and southwestern portions of the site will remain. The proposed driveway will be surfaced with RCA and topsoil and hydro seeding is proposed in non-operational areas.

Equipment use for the proposed asphalt and concrete crushing and screening site would generate sound levels varied from the existing ambient level. These sound pressure levels will reduce with distance. Given initial source measurement standardized at 50 feet from the sound source, every doubled distance will decrease the noise level by approximately 6 dB(A). Table 6 below [see Appendix G] provides an inventory of proposed machinery sound level specifications and decrease in levels with distance.

Sound levels, as a result of the facility, will have an insignificant effect on the south property line located along Middle Road. Distances from equipment to Middle Road measure greater than 300 feet and, although it may see an increase in sound level, is not projected on to residential occupied lots.

Noise emanating from property lines along the west and southwest will also have insignificant effect on the adjacent properties. These lots are zoned for industrial and vacant land in industrial area. The Town of Riverhead Chapter 251, §251-5 L (5) limits noise generated by the project and entering adjoining properties zoned industrial use by the chart in §251-5(a). Per the ordinance, continuous sound-in-air for 16 hours cannot exceed 82 dB(A)6. Thus, sound level is reasonable in these areas.

As proposed, facility will operate from 6 AM to 8 PM (Mondays through Fridays), from 6:30 AM to 5 PM (Saturday), and between the hours of 7 AM and 2 PM on Sundays. Materials

truck arrivals/departures and on-site activities causing significant levels of noise generated by equipment will not be allowed outside of those hours.

Although residentially occupied areas occur to the northeast and east, these properties are classified as Industrial A Zoning use district. Thus, the Town of Riverhead Chapter 251, §251-5 L (5) and use chart §251-5(a) will apply to these properties as well. Per the ordinance, continuous sound-in-air for 16 hours cannot exceed 82 dB(A)7. Thus, sound level is reasonable in these areas.

Analysis of sound levels were also analyzed per Part 360. Solid Waste Management Facilities General Requirements. Per, 360.19 Operating requirements, the proposed Asphalt and Concrete Crushing and Screening Facility could be mandated to maintain sound levels equivalent to suburban areas as provided in the ordinance. Sound levels beyond the property line must adhere to the Leq sound level limit presented in 360.19(d)(8)(j) if locations are authorized for residential use. Although residentially occupied areas occur to the east, these properties are classified/zoned as Industrial A Zoning use district. Per Town of Riverhead, NY/Part III: Zoning and Land Development/Zoning and Land Development/Districts Article XXIII Industrial A (Ind A) Zoning Use District "is to allow industrial and warehousing uses in defined areas, primarily located north and west of the terminus of the Long Island Expressway." Thus, it is not authorized for residential purposes.

Exploring options for existing or proposed noise abatement to alleviate sound levels to residentially occupied properties was undertaken during this analysis. The existing house and garage structure to the immediate easterly property, identified as 1776 Middle Road will act as a barrier which attenuates noise dispersion further to the east. Per the FHWA, "a two-story building can reduce noise levels on the side of the building away from the noise source by about 13dBA."

Proper locations of site activities will allow noise level reduction from the source equipment, thus minimizing noise to the adjacent receptors. The proposed crusher/screening equipment have been strategically placed (1) along Manor Road where existing ambient sound levels are higher and (2) in the center of the site approximately 215 feet west of the eastern property boundary. As per Table 5, sound levels 200 feet from the source are approximately 68 dB(A) for the crusher/screening equipment. In order to further reduce potential noise impacts on its residential neighbors, crushing operations (which would generate the most noise) may be limited in time, possibly to the hours between 10 AM and 4 PM.

In addition, per NYSDEC's Assessing and Mitigation Noise, "stockpiles of raw material or finished product can be an effective sound barrier if strategically placed." Stockpiles have been intentionally placed along the western side of the eastern leg of the driveway/ring road. Lastly, site design includes ten-foot deep buffers along the eastern, western and

southwestern property boundaries and 20-foot deep buffers along the southeastern and northerly property boundaries.

It should be noted that on August 11, 2020, B. Laing Associates, Inc. conducted sound monitoring efforts at a similar facility located on Grand Boulevard, Westbury, New York. Four (4) samples were obtained around the existing facility and one (1) sample within the residential area to the south. Although these sampling results were not representative of the subject site, because of the intensity of development surrounding the Westbury site, the reduction of sound level, as it pertains to distance, was evident in the sampling results. For example, the Leq in the residential area was 52.2 dB(A). This sample was taken approximately 265 feet south of the Westbury facility where Leq sample results were 69.6 dB(A).

Project related noise analysis has been completed for the proposed project as required in the Final Scope. Future demolition, site preparation and construction and operating activities will conform to the standards and specifications of the Town's noise ordinance as set forth in Chapter 251, Article I, "Noise," Riverhead Town Code, including conformance to the maximum prescribed noise levels for specified activities and times. The Noise Analysis also addresses 6NYCRR Part 360/361 regulations for a noise monitoring program. The project is found to be in compliance with the State regulations through completion of the noise monitoring program. Based on the analyses provided herein, unreasonable noise is not expected as a result of the proposed project and as a result, a noise monitoring and control plan is not needed for the operation.

Vibrations

The following information on vibration characteristics and analysis with respect to the subject site and the proposed operation has been taken from the Vibration Report prepared for the proposed project. The full analysis document is contained in **Appendix H.** (Note: tables referenced below are the tables contained in the Vibration Report provided in Appendix H.)

3.0 STUDY APPROACH AND IMPACT CRITERIA

The assessment utilized the methodologies presented in FTA's Transit Noise and Vibration Impact Assessment Report, revised May 2006.

3.1 EQUIPMENT VIBRATION LEVELS

The FTA guidance manual lists conservative vibration levels for various construction equipment, similar to the equipment to be used in the proposed facility. However, none of the equipment listed is similar and equivalent to a rock crusher. Consequently, a vibration measurement program was conducted to collect data from an operating rock crusher. These equipment vibration levels were then used to predict vibration levels near the nearest sensitive receptors.

3.2 PROJECT VIBRATION IMPACT CRITERIA

Federal vibration standards and guidelines with respect to community response are very consistent and often adopted by various State and Local governments, making their standards suitable for this project for both its operation and construction.

The project's operational vibration levels shall be assessed against the FTA's 72 VdB vibration threshold for residences subject to frequent events, a more stringent limit than that for residences with infrequent vibration events.

For the construction vibration impact assessment, vibration levels during construction will be conservatively assess against the FTA's building damage threshold of 0.20 ips for fragile buildings.

4.0 ROCK CRUSHER VIBRATION MEASUREMENT PROGRAM

Access was gained to an operating rock crusher, a Lippmann 3548 with 200 hp. Measurements were taken on August 24, 2020, utilizing an EDR-3C-2 recorder with a built-in triaxial accelerometers. The calibration certificate can be found in the appendix [see Appendix H].

The accelerometer was tightly affixed to metal stakes driven into the ground. Two rock crushers were in operation, one behind the other. The stakes were driven in approximately 50 feet from the nearest rock crusher, which was the Lippmann 3548, the more powerful of the two. Typically, vibration levels from different sources do not add since it is difficult for multiple sources to synchronize into a constructive wave.

4.1 VIBRATION MEASUREMENT RESULTS

The seven highest vibration measurement results (RMS) from the rock crusher measurements, based on the resultant values (i.e., the combined value from the x-, y-, and z-axes), at approximately 50 feet are presented in Table 4.1-1 below.

Table 4.1-1
Measured Rock Crusher Vibration Levels at 50 Feet

Sample	Vibration Level (ips, RMS)	Vibration Level (VdB, RMS)	Peak Frequency (Hz)
A	0.00417	72	64
B	0.00378	72	69
C	0.00382	72	69
D	0.00411	72	66
E	0.00379	72	67
F	0.00385	72	67
G	0.00397	72	67

It can be seen that the vibration levels are very consistent at 72 VdB and the peak frequency in a very tight frequency range, between 64 Hz to 69 Hz.

5.0 GROUND-BORNE VIBRATION IMPACT ASSESSMENT

The main variables for assessing ground-borne vibration impacts are:

- Vibration levels of the vibration generating source;
- Soil characteristics regarding vibration propagation;
- Distance from source to receptor; and
- Coupling loss from soil to building structure.

5.1 REFERENCE VIBRATION LEVELS

The equipment reference vibration levels used in the assessment are presented in Table 5.1-1. These equipment have the highest vibration generation used in the daily operation at the site.

Table 5.1-1
Reference Vibration Levels

Equipment	Reference Distance (feet)	Vibration Level	
		VdB	PPV (ips)
Rock Crusher	50	78	0.33
Front Loader	25	87	0.89
Loaded Truck	25	86	0.76

The project plans on using a Kleemann Mobirex MR130 EVO2 Track Mounted Crusher, which has been rated at about twice the horsepower (416 hp) than the Lippmann 2048 rock crusher (200 hp). Consequently, the vibration level utilized for the purposes of the assessment has been increased by 208% to account for the increase in power. It should be noted that the Lippmann 2048 measured is a stationary rock crusher, firmly affixed to concrete foundations imbedded into the ground, potentially result in much better vibration energy transmission from the rock crusher into the soil than a rock crusher mounted on tracks, such as the Kleemann Mobirex. Since a Kleemann Mobirex was not available at the time of this study for vibration level measurements, the coupling losses from the rock crushers into the soil were not considered, resulting in a more conservative estimate.

Reference vibration levels from Table 12-2 in the FTA guidance manual were used for the front loader and loaded trucks.3 No vibration levels for front loaders were available. Instead, the reference vibration level for a large bulldozer was used in lieu of a front loader. Large bulldozers typically are tracked equipment and could potentially generate greater vibration levels. The Caterpillar 966M front loader planned for this project is a wheeled front loader. Consequently, reference vibration levels for the front loader can be expected

to be conservative. The FTA manual does provide a reference vibration level for loaded trucks.

5.2 ESTIMATED VIBRATION LEVELS

Reference vibration levels were adjusted for distance using the formula provided in the FTA manual:

$$PPV_{equip} = PPV_{ref} \times (D_{ref} D)^{1.5}$$

Where PPV_{equip} is the vibration level of the equipment in PPV $_{(ips)}$ adjusted for distance, PPV_{ref} is the reference velocity in PPV $_{(ips)}$ at a reference distance, D_{ref} is the reference distance, and D is the distance from the equipment to the receptor. The distance for the rock crusher is measured from the center of the southernmost rock crusher to the nearest corner (northwest corner) of the residential structure at 1776 Middle Road. The distance from the front loader and loaded truck is measured from the roadway centerline of the southeast curve of the roadway encircling the work area, to the nearest corner (northwest corner) of the residential structure at 1776 Middle Road.

The resultant vibration levels at the nearest residence are presented in Table 5.2-1. Vibration levels transitioning from the soil into a building experience a coupling loss. According to Table 10-2 from the FTA guidance manual, a coupling loss of 5 VdB is typical for lightly constructed wood-framed buildings. It can be seen that the projected vibration levels are below what is considered the threshold of perception for the average person, 65 dBA.

Table 5.2-1
Vibration Levels at Receptor

Equipment	Reference Distance (feet)	Reference Vibration Level		Distance (feet)	Vibration Level	
		VdB	PPV (ips)		Exterior	Interior
Rock Crusher	50	78	0.33	330	54	49
Front Loader	25	87	0.89	145	64	59
Loaded Truck	25	86	0.76	145	63	58

5.3 CONSTRUCTION VIBRATION

Construction activities generally have a temporary impact on sensitive receptors in the immediate vicinity of the construction site. The extent of the construction associated vibration impact depends upon the nature of the construction, the construction schedule and vibration characteristics of the construction equipment deployed. Complaints typically arise when construction efforts interfere with people's activities, especially when the community is caught unaware or has insufficient information about the extent or duration

of the construction. Construction at the site is expected to be between three to six months due to the nature of this project. The bulk of the construction for this project involves the vegetative clearing, earth moving, and grading. However, construction close to residential receptors is expected to be of very short durations since the much of the vegetation closest to the residence at 1776 Middle Road is to be left untouched. The construction equipment with highest vibration generating potential is expected to be a bulldozer. For the construction assessment, a large bulldozer is assumed to be used. The closest the equipment is expected to come to the residence at 1776 Middle Road is 60 feet. The PPV expected at this distance is 0.0239 ips, or 76 VdB.

5.4 COMPARISON WITH PROJECT IMPACT CRITERIA

The project adopts the criteria presented in FTA's Transit Noise and Vibration Impact Assessment guidance manual.

5.4.1 Operational Vibration Impacts

The predicted vibration levels at the nearest residence with the project impact criteria are presented **in Table 5.4.1-1.**

Table 5.4.1-1
Worst Case Vibration Levels Comparison to Impact Criteria

Equipment	Reference Vibration Level		Distance (feet)	Project Criteria (VdB)	Vibration Level	
	VdB	PPV (ips)			Exterior	Interior
Rock Crusher	78	0.33	330	72	54	49
Front Loader	87	0.89	145	72	64	59
Loaded Truck	86	0.76	145	72	63	58

It can be seen from Table 5.4.1-1 that the expected vibration levels form all three equipment are well below the impact criteria. The estimated vibration levels indoors are well below what is commonly considered the threshold of perception, 65 VdB.

5.4.2 Construction Vibration Impacts

The predicted vibration levels at the nearest residence with the project construction impact criteria for fragile buildings are presented in Table 5.4.2-1. Unlike the impact criteria for operations, which focus on community response, the construction impact criteria focus damage to structures. The project construction impact threshold presented is the damage threshold of fragile buildings. Presently, there is no indication that the residential structures are fragile, but are conservatively assumed to be for the purposes of this assessment. The vibration levels in VdB have been presented for informational purposes.

Table 5.4.2-1
Worst Case Projected Vibration Levels Comparison to Construction Impact Criteria

Equipment	Reference Vibration Level		Distance (feet)	Project Criteria		Vibration Level	
	VdB	PPV (ips)		VdB	PPV (ips)	Exterior	Interior
Rock Crusher	78	0.33	330	100	0.200	54	49
Front Loader	87	0.89	145	100	0.200	64	59
Loaded Truck	86	0.76	145	100	0.200	63	58

It can be seen from Table 5.4.2-1 that the expected construction vibration level does not even approach the project construction vibration criteria level of 0.2 ips. The front loader is expected to be in operation at 60 feet only a short length of time.

The predicted vibration level of 76 VdB at 60 feet is the exterior vibration level. Factoring a coupling loss of 5 VdB, the interior vibration level would be 71 VdB, just below the FTA residential vibration impact threshold for residences subject to frequent events and well below the 80-VdB threshold for residences subject to infrequent events.

6.0 CONCLUSION

The proposed project proposes the construction and operation of an asphalt and concrete construction and demolition processing facility. Asphalt and construction debris will be trucked in, processed, and trucked out.

Vibration impacts were assessed based on the results of the detailed analysis and measurements, using Federal methodologies and criteria for estimating and assessing future impacts from the proposed facility.

The results show that the C&D facility is not expected to generate vibration levels that exceed vibration impact thresholds for residences or approach the damage thresholds for fragile structures, even though there are no known structures in the immediate vicinity of the project site that would be considered structurally fragile.

It is, therefore, concluded that the proposed C&D operation and construction are not expected to exceed applicable vibration criteria and are not expected to cause vibration impacts.

Vibration analysis has been completed in conformance with the Final Scope. Vibration impact analysis provided herein supports a finding that the proposed operation is not expected to cause vibration impacts.

3.2.3 Proposed Mitigation

- Installation of a berm on the north part of the site.
- Installation of fencing on the perimeter of the site operation.
- Installation of landscaping on the north, east and west perimeter of the site to provide visual screening.
- Strategic placement of crusher/screening operations within the site as depicted on project plans.
- Limit hours of operation of equipment on-site.
- Conform with Chapter 251, Noise, Public Nuisances and Property Maintenance.
- Conform with 6NYCRR Part 360/361 for facility permitting and operational oversight by NYSDEC.

3.3 Community Services

Figure 3-4 shows the locations of the public safety/security and health-related services in the area, and **Figure 3-5** depicts water supply services in the area.

For this application, letters were sent to the community service providers, soliciting information on services available and currently provided, as well as service provider input regarding the proposed project and their ability to provide services. **Appendix I** contains these letters, with the service provider response letters that were received.

3.3.1 Existing Conditions

Police Protection

The subject site is served by the Riverhead Police Department (RPD), whose headquarters is located at 210 Howell Avenue. The current Chief of the department is David J. Hegermiller, and the Department's webpage is: *www.townofriverheadny.gov/*.

Considering the current vacant condition of the site, it is not expected that it represents any significant impacts on the patrol responsibilities of the Riverhead Police Department in terms of site security/oversight under existing conditions.

Fire Protection and Ambulance Services

Fire Protection - The subject site is within the Riverhead Fire District (RFD), and is served by the Riverhead Volunteer Fire Department, whose website is *www.riverheadfire.org*. The Department has its Headquarters at 540 Roanoke Avenue, in Riverhead, and has three additional facilities, on Hamilton Avenue (Station 1), Hubbard Avenue (Station 2), and Twomey Avenue (Station 3, in Calverton). The Department is served by a total of about 175 personnel, distributed as follows:

- Red Bird Hook & Ladder Company 1 (25 personnel assigned)

- Fire Police Patrol Company 1 (27 personnel assigned)
- Reliable Hose & Engine Company 1 (30 personnel assigned)
- Washington Engine Company 2 (32 personnel assigned)
- Ever-Ready Engine Company 3 (27 personnel assigned)
- Eagle Hose Company 4 (33 personnel assigned)

Ambulance Services - The subject site is served with emergency medical services by the Riverhead Volunteer Ambulance Corps, Inc., located at 1111 Osborn Avenue, in Riverhead. As indicated on its website (*www.riverheadvac.com*), the Corps has four ambulances and three Responder vehicles.

As the subject site is presently vacant, there is little to no need for emergency services at the site, so that there would be no impact on either fire protective or ambulance services.

Water Supply/Wastewater/Drainage

The project site is within the limits of the RWD which, as confirmed by the RWD, does not presently maintain service lines in the vicinity and so does not serve the project site. As a result, potable water is provided to all development in the vicinity via individual private wells.

As the site is currently unoccupied and unused, and the residence is vacant, no water is presently consumed on the property. Based on the applicable water usage rate of the SCSC Article 6 for a single-family residence, it is assumed that the site, when the residence was occupied, used 300 gpd of potable water, supplied via the site's private well. A corresponding volume of wastewater would be produced if the home were occupied, and wastewater is disposed of in an existing on-site sanitary system. The site is not within or connected to a municipal sewer district.

The site is not connected to a municipal drainage system. Existing stormwater recharges natural on the site, and any runoff associated with the existing impervious surfaces locally infiltrates the on-site soils.

Energy Suppliers

Electricity - PSEGLI provides electricity in the area, and to the existing residence on the site. As the site is currently vacant, no electricity is consumed on the site. Thus, the subject site would not presently impact the PSEGLI electrical energy supply network.

Natural Gas - National Grid provides natural gas to much of Long Island, including the Town of Riverhead. A search of the National Grid website database was conducted, and the following results were obtained: "We did not find any close address matches in our database." As a result, the existing dwelling does not use National Grid service. As such, there is no natural gas supplied to or consumed on the project site. Therefore, the site does not presently impact natural gas supply.

3.3.2 Anticipated Impacts

Police Protection

The proposed project will utilize the site in conformance with zoning, and consistent with other industrial uses in the area. As a result, there will be an increased human presence on the property. A letter was sent to the RPD on September 17, 2019, notifying the department of the project and requesting information or concerns. The Department's response letter states:

1. The Riverhead Police Department does not consist of various precincts. The project site is located entirely within the Department's jurisdiction.
2. Riverhead Police Headquarters is located at 210 Howell Avenue, Riverhead, New York.
3. The proposed site lies within the 603 patrol sector.

Also, be advised that Middle Road is a weight restricted road. All trucks exiting the facility must exit onto Manor Road, heading west to S.R. 25/Middle Country Road.

The Riverhead Police Department was notified of the proposed project and provided with an opportunity to provide input and/or address any concerns regarding coverage, other than site access. The proposed site plan has been designed to address the RPD comment, and all truck access will be from Manor Road. No other issues of concern were raised by the Riverhead Police Department in correspondence dated October 7, 2019. The site will be served by the RPD. It is noted that the proposed project will generate tax revenue to the RPD based on the assessment of the proposed use and distribution of taxes to taxing jurisdictions. It is further noted that the site will be operated based on a NYSDEC Part 360 permit which includes a nuisance and vector control plan, trained personnel on-site, record keeping and reporting, and a contingency plan. On-site security, fencing and presence by on-site occupants during operations will help curtail any issues requiring the response of the RPD. The proposed project is not expected to create a burden on police services and no issues regarding police coverage for the site have been expressed.

Fire Protection and Ambulance Services

The proposed project will utilize the site in conformance with zoning, and consistent with other industrial uses in the area. As a result, there will be an increased human presence on the property and a potential location for an increased need of emergency services from both the Riverhead Volunteer Fire Department and the Riverhead Volunteer Ambulance Corps, Inc.

Fire Protection - The Riverhead Police Department was notified of the proposed project and provided with an opportunity to provide input and/or address any concerns regarding fire coverage. No response has been received as of the date of this DEIS. It is noted that the proposed project will generate tax revenue to the RFD based on the assessment of the proposed use and distribution of taxes to taxing jurisdictions. It is further noted that the site

will be operated based on a NYSDEC Part 360 permit which includes a nuisance and vector control plan, trained personnel on-site, record keeping and reporting, and a contingency plan. In addition, on-site security, fencing and presence by on-site occupants during operations will help curtail any issues requiring the response of the RFD. The proposed project is not expected to create a burden on fire response police services and no issues regarding fire coverage for the site have been expressed to date.

It is noted that, as the subject site and immediate area are not served with water from the RWD (there are no hydrants in the area), water for fire suppression purposes in case of fire would be provided by the RFD's 4,000 gallon tanker truck, and potentially supplemented by water from the private wells that serve developed properties in the area.

Ambulance Services – The Riverhead Volunteer Ambulance Corps, Inc. (RVAC) was notified of the proposed project and provided with an opportunity to provide input and/or address any concerns regarding fire coverage. No response has been received as of the date of this DEIS. It is noted that the proposed project will generate tax revenue to the RVAC based on the assessment of the proposed use and distribution of taxes to taxing jurisdictions. It is further noted that the site will be operated based on a NYSDEC Part 360 permit which includes a nuisance and vector control plan, trained personnel on-site, record keeping and reporting, and a contingency plan. The proposed project will have a low number of employees on-site at any one time (estimated to be 3-6) persons, thus reducing potential for ambulance response. The proposed project is not expected to create a burden on the RVAC and no issues regarding fire coverage for the site have been expressed to date.

Water Supply/Wastewater/Drainage

As shown in **Table 1-4**, it is expected that the proposed project will consume a total of 328 gpd of potable water, to be supplied by the site's existing private well. A corresponding volume of wastewater will be generated and disposed of via an existing on-site sanitary system. No municipal wastewater treatment connection is available or requested. The well withdrawal is minimally greater than what the existing residence would use, if occupied. As a result, there is no burden on a water supply provider (i.e., the Riverhead Water District), and a minimal use of water from the Upper Glacial Aquifer beneath the site. No impact is expected regarding water supply.

Stormwater retention systems will be designed for the proposed project in conformance with Town Engineering requirements. The site plan includes Drawing Number C-103, Sheet 4 of 9, Grading & Drainage Plan. The watershed areas of the site were determined and stormwater containment and recharge are provided in conformance with Town design specifications. Stormwater will be recharged on-site, therefore no community service impact is expected with regard to stormwater.

Dust controls will be managed using an on-site water truck. Water will be provided from the on-site private well, and will be stored for use on-site. Stored water will be used in spray form

to wet any dry surfaces that may cause fugitive dust. Use of water will be intermittent and not excessive, and given the ability to store water for such use, no adverse impact to the aquifer is expected.

Energy Suppliers

Electricity – PSEG-LI was notified of the proposed project and provided with an opportunity to provide input and/or address any concerns regarding fire coverage. No response has been received as of the date of this DEIS. It is noted that the proposed project will pay for electrical services in accordance with applicable tariffs. The proposed project is not expected to create a burden on electrical service or PSEG-LI as it will pay for electric service and is not expected to have a significant demand as a result of the small office and low occupancy of the site. PSEG-LI was notified of the project and no issues regarding electrical service for the site have been expressed to date.

Natural Gas – As the subject site will not expected to be served by National Grid, there will be no impact on this service provider. Should natural gas become available and a connection made, the site will pay for gas utilization in accordance with applicable tariffs.

3.3.3 Proposed Mitigation

- The proposed project is not expected to burden RPD, RFD or RVAC with increased calls or demand for services based on the site operation and low number of employees on-site.
- The proposed project will use private well water, and will not connect to the RWD.
- The proposed project will contain stormwater on-site, in conformance with Town design standards.
- The proposed project will pay taxes that will be distributed to taxing jurisdiction.
- The site will be operated based on a NYSDEC Part 360 permit which includes a nuisance and vector control plan, trained personnel on-site, record keeping and reporting, and a contingency plan.
- The proposed use will pay for electrical service based on applicable tariffs.
- Natural gas service is not expected to be available to the site.

3.4 Transportation

3.4.1 Existing Conditions

Sight Distance at Site Access Points/Weight Restrictions

The posted speed limit on Manor Road is 45 miles per hour (mph). Manor Road in the vicinity of the existing site entrance is flat and straight. There are no vertical or horizontal impediments to sight distance at the north driveway entrance to the site. There are no existing driveways opposite the existing site entrance on Manor Road.

The posted speed limit on Middle Road is 35 mph. Middle Road slopes up gradually from south to north in the vicinity of the site driveway. The vertical curve of the road does not impede visibility north and south at the existing site entrance. There is a horizontal curve to the east, south of the existing site entrance. Given the site driveways location to the north of the curve, there is no impediment to visibility at the site entrance due to horizontal alignment. There are no existing driveways opposite the existing site driveway on Middle Road.

As indicated by the RPD, Middle Road is a weight restricted road. All trucks accessing the facility current use Manor Road.

Traffic Impact Study

A Traffic Impact Study (TIS) has been prepared for the proposed project by N&P, LLP (dated May 2020; see **Appendix J**). The following description of the traffic resources of the subject site and the current operations of the local intersections has been taken from that study.

Study Purpose and Methodology

Nelson & Pope conducted a Traffic Impact Study to identify traffic impacts that may be associated with the proposed project. The study was accomplished by completing the following tasks:

- Perform a field inventory of existing roadway features including geometry, lane widths, traffic control, pavement markings, parking restrictions, traffic signal timing and phasing.

- Install Automatic Traffic Recorders (ATR) on Manor Road and Middle Road in the vicinity of the site for a period of seven (7) days in to obtain vehicle classification data (auto and trucks) and hourly and daily volumes to supplement the turning movement counts.

- Conduct turning movement counts at the following intersections during a typical weekday AM (6-9am), weekday PM (4-7pm) and Saturday (11am-2 pm) peak hours.

    - Middle Country Road and Manor Road
    - Manor Road at Twomey Avenue
    - Manor Road at Middle Road

- Tabulate traffic count data and identify peak hour factors.

- The Town of Riverhead Planning Department was contacted to obtain information on other planned projects that may impact traffic flow in the study area. The traffic generated by the other planned projects is referred to the Other Planned Projects Traffic Volumes.

- Adjust the existing volumes to reflect anticipated future (i.e., in the year 2022) No Build Volumes using annual growth factors derived from information developed for the New

York Metropolitan Transportation Council's (NYMTC) Best Practices Model and from the NYSDOT LITP2000 [Long Island Transportation Plan, 2000] Study. These traffic volumes are referred to as Ambient Traffic Volumes. Since there are no significant other planned projects in the study area [see below], the Ambient Traffic Volumes also represent the 2022 No Build Volumes.

- Prepare estimates of traffic that would be generated by the proposed project utilizing anticipated operation data obtained from the applicant. The site-generated traffic volumes were assigned to the adjacent street system based upon the anticipated directional trip distribution forecasted by Nelson & Pope.

- Perform Capacity Analyses at the study intersections identified above for Existing, No Build, and Build Conditions for the Weekday AM, Weekday PM and Saturday midday peak hours. The analyses were performed using *Synchro Version 10* software to provide level of service (LOS) results at the intersections.

- Compare the results of the Capacity Analyses for the 2022 No Build Conditions and 2022 Build Conditions, to identify any significant impact associated with the proposed project.

- Prepare a TIS report of the findings for submission to the Town of Riverhead.

Roadway Conditions

The following is a list of roadways included in the study network surrounding the site. The general descriptions listed here refer only to the sections of the roadways that exist near the site. Their cross-section may vary further away from the site.

- *Middle Country Road (NYS Route 25)* is an east/west urban principal arterial under the jurisdiction of the NYSDOT NYS Route 25 in the vicinity of the site provides one lane per travel direction with left turn lanes at the intersection of Middle Country Road and Manor Road. The section of Middle Country Road in the vicinity of the site has an average annual daily traffic (AADT) volume of approximately 15,616 vehicles per day. The horizontal alignment is slightly curving, and the vertical alignment is rolling in the vicinity of the site. The posted speed limit is 50 miles per hour. The land uses along this roadway in the vicinity of the site are predominantly farmlands.

- *Manor Road* is a local Town Road that extends from Middle Country Road in a north/south direction to Middle Road in an east/west direction. Manor Road provides one lane per travel direction. Manor Road in the vicinity of the site has an AADT volume of approximately 2,565 vehicles per day. The horizontal alignment is curving, and the vertical alignment is rolling in the vicinity of the site. The posted speed limit is 35 miles per hour. The land uses along this roadway in the vicinity of the site are predominantly farmlands.

- *Middle Road* is a local Town Road that extends from Doctors Path in the east in an east/west direction to a dead-end at its westerly terminus in a north/south. Middle Road provides one lane per travel direction. Middle Road in the vicinity of the site has an AADT volume of approximately 437 vehicles per day. The horizontal alignment is curving, and the vertical alignment is rolling in the vicinity of the site. The posted speed limit is 35 miles per hour. The land uses along this roadway in the vicinity of the site are predominantly farmlands.

Table 3-2 summarizes the lane configurations and traffic controls at the study intersections.

Table 3-2
INTERSECTION GEOMETRY

Intersection	Approach	Lane Designation	Traffic Control
Middle Country Road (NYS Route 25) at Manor Road	EB WB NB SB	L-TR L-TR LTR LTR	Traffic Signal
Manor Road at Twomey Avenue	EB WB NB SB	LTR LTR LTR LTR	Stop Control on Twomey Avenue
Manor Road at Middle Road	EB NB SB	LR LT TR	Stop Control on Manor Road

Notes: EB-eastbound; WB-westbound; NB-northbound; SB-southbound; L- Left turn; T-Through ; R-Right turn.

Existing Traffic Volume Data

Weekday turning movement counts were collected at the study intersections on Thursday January 30, 2020 during the weekday AM (6:00-9:00 AM) and weekday PM (4:00-7:00 PM) peak periods. The weekend turning movement counts were collected on February 1, 2020 during the Saturday midday peak period (11:00 AM – 2:00 PM). The volume data was tabulated to identify the peak hours at each of the study intersections. In order to perform a conservative analysis, the peak hour volumes at each intersection were utilized in this study. The existing intersection peak hour volumes are contained in Appendix A [within **Appendix I**].

Level of Service Description

While traffic volumes provide an important measure of activity on the adjacent roadway network, evaluating how well that network accommodates those volumes is also important. Therefore, a comparison of peak hour traffic volumes with available roadway capacity is prepared. Capacity, by definition, represents the maximum number of vehicles that can be accommodated given the constraints of roadway geometry, traffic characteristics and

controls. Intersections primarily control capacity in roadway networks, since conflicts exist at these points between through, crossing and turning traffic. Because of these conflicts, congestion is most likely to occur at intersections. Therefore, intersections are studied most often when determining the quality of traffic flow.

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

Intersection capacity and LOS analyses were conducted at the study intersections for the Existing, 2022 No Build and 2022 Build conditions during the weekday AM, Weekday PM and Saturday midday peak hours using *SYNCHRO Version 10* Software. *SYNCHRO*, as described above. The detailed LOS worksheets are contained in Appendix C [within **Appendix J**].

Refer to **Tables 3-4a and b, 3-5a and b, and 3-6a and b** below for information on the existing LOS results (Existing Conditions) for the signalized and unsignalized intersections, for the AM, PM and Saturday Midday peak hours, respectively.

The following summarizes the existing LOS condition at the three local intersections evaluated in the TIS:

Middle Country Road (NYS Route 25) at Manor Road
Currently the signalized intersection of Middle Country (NYS Route 25) and Middle Road operates at overall LOS B during the weekday AM, weekday PM, and Saturday midday peak hours.

Manor Road at Twomey Avenue
Currently, all the traffic movements at the intersection of Manor Road and Twomey Avenue operate at LOS B or better during the weekday AM, weekday PM, and Saturday midday peak hours.

Manor Road at Middle Road
Currently, all the traffic movements at the intersection of Manor Road and Middle Road operate at LOS A during the weekday AM, weekday PM, and Saturday midday peak hours.

3.4.2 Anticipated Impacts

Sight Distance at Site Access Points
Sight distance refers to the distance of sight needed to adequately react when making a turn onto or across travel lanes at a road intersection. More specifically, sight distance refers to the

minor approach of the study intersection (site driveway/ROW) to ensure sufficient sight distance is available based on the 85th percentile speed for Further Lane. The American Association of State Highway Transportation Officials (AASHTO) publishes the reference, A Policy on Geometric Design of Highways and Streets (2011) which includes sight distance tables that include "Stopping Sight Distance" and "Intersection Sight Distance for Passenger Cars." For Intersection Sight Distance, recommended distances are included for a "Left Turn from Stop," and a "Right Turn from Stop." The left turn is a longer distance due to the need to cross a travel lane.

Manor Lane has a posted speed limit of 45 mph. For this speed, based on AASHTO, the Stopping Sight Distance is 360 feet, the intersection Sight Distance for a Left Turn from Stop is 500 feet, and for a Right Turn from Stop is 430 feet. Middle Road has a posted speed limit of 35 mph. For this speed, the Stopping Sight Distance is 250 feet, the intersection Sight Distance for a Left Turn from Stop is 390 feet, and for a Right Turn from Stop is 335 feet. The available site distance was recorded and compared with the recommendations contained in the reference, by the American Association of State Highway and Transportation Officials (AASHTO). Sight distance measurements were performed at the proposed location of the existing/new driveway for access to Manor Road. The table below provides a summary of the distances and measurements.

Roadway/ Distance	Stopping Sight Distance*	Intersection Sight Distance LT*	Recorded Sight Distance LT	Intersection Sight Distance RT*	Recorded Sight Distance RT
Manor Road Access	360	500	>500	430	>500
Middle Road Access	155	280	>280	240	>300

Notes: All distances measured in feet.
LT = Left Turn; RT = Right Turn.
* - refers to recommended distance.

As can be seen in the table, the available sight distance for both site access locations is in excess of the Stopping Sight Distance and the recommended Intersection Sight Distance criteria for both left and right turns. No adverse impact is expected with respect to sight distance.

In addition, as per the recommendation of the RFD, all trucks exiting the facility will exit onto Manor Road, heading west to S.R. 25/Middle Country Road.

Traffic Impact Analysis

The following presents the potential traffic-related impacts of the proposed project, as contained in the TIS.

No Build Condition

The No Build Condition represents traffic conditions expected at study intersections in the future year 2022 without the construction of the proposed project. The No Build Condition traffic volumes are estimated based on two factors as follows:

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

Growth Rate

Based on the Average Annual Growth Rate for Vehicle-Miles Travel developed by the NYMTC, the average annual growth rate for Suffolk County ranges from 0.37% to 0.71% depending on the functional classification of the roadway. Based on the functional classifications of roadways within the study area, the growth rate will either be 0.47% or 0.71%.

Other Planned Projects

"Other Planned Projects" is a term that refers to developments located near the project site that are currently under construction or in the planning stages. Traffic generated by these projects may significantly influence the operations of the study intersections and would not be represented in the field data collected. The Town of Riverhead was contacted to obtain information on any planned projects in the area. However, no information was provided to us by the Town. In order to account for traffic from other planned projects an annual growth factor of 1.3% instead of 0.71% per year was utilized. The existing traffic volumes were increased by a factor 1.3% a year for a period of two (2) years to project volumes to the year 2022. The No Build traffic volumes for the weekday AM, weekday PM and Saturday midday peak hours are included in Appendix A [within **Appendix J**].

Build Condition

Site Access

Access to the site will be provided via one full movement truck driveway on Manor Road and one full movement driveway for employees on Middle Road. The proposed Truck Driveway om Manor Road will be 40 feet wide with a 35 foot radius.

Trip Generation

In order to identify the impacts the proposed project will have on the adjacent street system, it is necessary to estimate the magnitude of traffic volume generated during the peak hours and to estimate the directional distribution of the site traffic when entering and exiting the subject property. The trip generation estimates for the proposed project were

prepared utilizing anticipated site vehicle usage data provided by the applicant. The following site information was provided by the applicant:

- The site operating hours will be Monday – Friday from 6:30am to 5:30pm, Saturday from 7am-7pm and Sunday from 9am-12pm.
- Between 10-15 trucks are expected to access the site per day.
- Between 3-4 employees per day.

Based on this information, we conservatively assume 5 trucks will enter and exit the site during each peak hour (weekday AM, Weekday PM and Saturday midday peak hours). We assume all the employees would enter the site during the weekday AM peak hour and exit during weekday PM peak hour. **Table 3-3** summarizes the trip generation estimates for the proposed project.

Table 3-3
TRIP GENERATION
Proposed Project

Time Period	Distribution	Trucks (vph)	Employees* (vph)	Totals (vph)
Weekday AM Peak Hour	Enter	5	4	9
	Exit	5	1	6
	Total	**10**	**5**	**15**
Weekday PM Peak Hour	Enter	5	1	6
	Exit	5	4	9
	Total	**10**	**5**	**15**
Saturday Midday Peak Hour	Enter	5	4	9
	Exit	5	4	9
	Total	**10**	**8**	**18**

Note: vph - vehicles per hour.
* Assumes employees use private automobiles or small pick-up type trucks

As can be seen from **Table 3-3** above, the proposed project is projected to generate15 trips (9 entering and 6 exiting) during the weekday AM peak hour, 15 trips (6 entering and 9 exiting) during the weekday PM peak hour and 18 trips (9 entering and 9 exiting) during the Saturday midday peak hour.

Trip Distribution and Assignment
The volume of site traffic expected to be generated by the proposed project during peak hours was distributed and assigned to each intersection movement based on existing roadway volumes and travel patterns. The nature of the proposed land use and its associated travel patterns were considered as well. The site generated traffic volumes were then added to the weekday AM, PM and Saturday midday No Build Condition volumes

resulting in the Build Condition volumes. The Site Generated and Build volumes are in Appendix A of the TIS [within **Appendix J**].

Traffic Analyses

Tables 3-4a and b, 3-5a and b, and 3-6a and b present the LOS results for Existing Conditions, the 2022 No Build Condition, and the 2022 Build Condition, for the signalized and unsignalized intersections, for the AM, PM and Saturday Midday peak hours, respectively.

Table 3-4a
LEVEL OF SERVICE SUMMARY, Signalized Intersection
Weekday AM Peak Hour

Signalized Intersection	Approach	Movement	2020 Existing Conditions		2022 No Build Condition		2022 Build Condition	
			LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)
Middle Country Road (NYS 25) Manor Road	EB	L	A	5.4	A	5.5	A	5.9
		TR	B	13.6	B	13.9	B	14.6
	WB	L	A	5.5	A	5.5	A	5.9
		TR	B	14.8	B	14.9	B	15.9
	NB	LTR	C	24.5	C	25.5	C	25.2
	SB	LTR	C	27.0	C	27.8	C	29.1
	Overall	**---**	**B**	**15.2**	**B**	**15.5**	**B**	**16.4**

Notes: EB-eastbound; WB-westbound; NB-northbound; SB-southbound; L- Left turn; T-Through ; R-Right turn.

Table 3-4b
LEVEL OF SERVICE SUMMARY, Unsignalized Intersections
Weekday AM Peak Hour

Unsignalized Intersection	Approach	Movement	2020 Existing Conditions		2022 No Build Condition		2022 Build Condition	
			LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)
Manor Road at Twomey Avenue	EB	LTR	A	2.7	A	2.7	A	2.5
	WB	LTR	A	0.4	A	0.4	A	0.5
	NB	LTR	B	10.0	B	10.1	B	10.5
	SB	LTR	A	9.2	A	9.2	A	9.3
Manor Road at Middle Road	EB	LR	A	9.3	A	9.3	A	9.3
	WB	LT	A	7.6	A	7.6	A	7.0
Manor Road at Truck Driveway(Manor Road)	WB	LT					A	0.0
	NB	LR					B	10.5
Middle Road at Site Driveway (Middle Road)	EB	LR					A	8.7
	NB	LT					A	0.0

Notes: EB-eastbound; WB-westbound; NB-northbound; SB-southbound; L- Left turn; T-Through ; R-Right turn.

Table 3-5a
LEVEL OF SERVICE SUMMARY, Signalized Intersection
Weekday PM Peak Hour

Signalized Intersection	Approach	Movement	2020 Existing Conditions		2022 No Build Condition		2022 Build Condition	
			LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)
Middle Country Road (NYS 25) Manor Road	EB	L	A	4.4	A	4.5	A	5.1
		TR	A	6.0	A	5.9	A	6.5
	WB	L	A	0.0	A	0.0	A	0.0
		TR	B	18.9	B	19.2	C	20.7
	NB	LTR	A	0.4	A	0.4	A	0.5
	SB	LTR	C	32.9	C	34.6	D	37.1
	Overall	**---**	**B**	**16.1**	**B**	**16.5**	**B**	**17.8**

Notes: EB-eastbound; WB-westbound; NB-northbound; SB-southbound; L- Left turn; T-Through ; R-Right turn.

Table 3-5b
LEVEL OF SERVICE SUMMARY, Unsignalized Intersections
Weekday PM Peak Hour

Unsignalized Intersection	Approach	Movement	2020 Existing Conditions		2022 No Build Condition		2022 Build Condition	
			LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)
Manor Road at Twomey Avenue	EB	LTR	A	3.4	A	3.4	A	3.2
	WB	LTR	A	0.1	A	0.1	A	0.2
	NB	LTR	B	11.3	B	11.4	B	12.0
	SB	LTR	A	9.7	A	9.8	B	10.2
Manor Road at Middle Road	EB	LR	A	9.6	A	9.6	A	9.7
	WB	LT	A	4.8	A	4.6	A	5.1
Manor Road at Truck Driveway (Manor Road)	WB	LT					A	0.0
	NB	LR					B	11.2
Middle Road at Site Driveway (Middle Road)	EB	LR					A	8.7
	NB	LT					A	0.0

Notes: EB-eastbound; WB-westbound; NB-northbound; SB-southbound; L- Left turn; T-Through ; R-Right turn.

Table 3-6a
LEVEL OF SERVICE SUMMARY, Signalized Intersection
Saturday Midday Peak Hour

Signalized Intersection	Approach	Movement	2020 Existing Conditions		2022 No Build Condition		2022 Build Condition	
			LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)
Middle Country Road (NYS 25) Manor Road	EB	L	A	4.1	A	4.1	A	4.5
		TR	A	9.7	A	9.7	B	10.1
	WB	L	A	4.0	A	4.0	A	4.5
		TR	B	15.3	B	15.2	B	16.3
	NB	LTR	A	0.0	A	0.0	A	0.0
	SB	LTR	C	22.7	C	24.1	C	26.7
	Overall	**---**	**B**	**13.3**	**B**	**13.4**	**B**	**14.4**

Notes: EB-eastbound; WB-westbound; NB-northbound; SB-southbound; L- Left turn; T-Through ; R-Right turn.

Table 3-6b
LEVEL OF SERVICE SUMMARY, Unsignalized Intersections
Saturday Midday Peak Hour

Unsignalized Intersection	Approach	Movement	2020 Existing Conditions		2022 No Build Condition		2022 Build Condition	
			LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)
Manor Road at Twomey Avenue	EB	LTR	A	3.3	A	3.3	A	3.1
	WB	LTR	A	0.2	A	0.3	A	0.3
	NB	LTR	B	11.0	B	11.2	B	11.7
	SB	LTR	A	9.7	A	9.7	A	9.9
Manor Road at Middle Road	EB	LR	A	9.5	A	9.5	A	9.7
	WB	LT	A	6.1	A	6.1	A	6.0
Manor Road at Truck Driveway (Manor Road)	WB	LT					A	0.0
	NB	LR					B	10.9
Middle Road at Site Driveway (Middle Road)	EB	LR					A	8.6
	NB	LT					A	0.0

Notes: EB-eastbound; WB-westbound; NB-northbound; SB-southbound; L- Left turn; T-Through ; R-Right turn.

Middle Country Road (NYS Route 25) at Manor Road

Currently the signalized intersection of Middle Country (NYS Route 25) and Middle Road operates at overall LOS B during the weekday AM, PM and Saturday midday peak hours. During the No Build Condition, this intersection will operate at overall LOS B during the weekday AM, weekday PM and Saturday midday peak hours respectively. After the completion of the project, the intersection will continue to operate at No Build LOS during the analyzed peak periods. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Manor Road at Twomey Avenue

Currently, all the traffic movements at the intersection of Manor Road and Twomey Avenue operates at LOS B or better during the weekday AM weekday PM and Saturday midday peak hours. During the No Build condition, the traffic movements at the intersection will operate at LOS B or better during the weekday AM, weekday PM and Saturday midday peak hours. After the completion of the project, all the approach movements at the intersection will continue to operate at No Build levels of service. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Manor Road at Middle Road

Currently, all the traffic movements at the intersection of Manor Road and Middle Road operates at LOS A during the weekday AM weekday PM and Saturday midday peak hours. During the No Build condition, the traffic movements at the intersection will operate at LOS A during the weekday AM, weekday PM and Saturday midday peak hours. After the completion of the project, all the approach movements at the intersection will continue to operate at No Build levels of service. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Manor Road at Truck Site Driveway

After the completion of the project, the westbound approach at the intersection of Manor Road and the truck driveway will operate at LOS A and the northbound approach will operate at LOS B during the weekday AM, PM and Saturday midday peak hours. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Middle Road at Site Driveway

After the completion of the project, the eastbound approach at the intersection of Middle Road and the Site driveway will operate at LOS A during the weekday AM, PM and Saturday midday peak hours. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Conclusion
Based on the results of the [TIS…], it is the professional opinion of Nelson & Pope that the construction of the proposed project will not result in an adverse traffic impact at the study intersections.

3.4.3 Proposed Mitigation

- Truck access will be taken from Manor Road to reduce potential noise and traffic impacts on existing residences from truck traffic and to address the weight restriction on Middle Road.
- All construction access will be from Manor Road.
- Town engineering review for site access will be completed.
- As established in the TIS, no significant impacts will be created at any of the intersections evaluated in that document. Therefore, no traffic or roadway-related mitigation measures are necessary or proposed.

SECTION 4.0
OTHER REQUIRED SECTIONS

4.0 OTHER REQUIRED SECTIONS

4.1 Construction-Related Impacts

A brief description of the anticipated demolition and construction phase, and the measures to be implemented to control potential erosion during the construction period, are presented in **Section 1.5.1**. The **Demolition Plan** indicates those site features that will be removed prior to the onset of construction. This sub-section describes and discusses the anticipated impacts on various aspects of the project site during the construction period.

It is expected that temporary inconvenience and minor construction impacts will occur in the area of the site during the construction phase of the proposed project. However, such impacts are unavoidable (any redevelopment of the site would cause the same or similar impacts), are not permanent, and would occur only during the limited duration of the construction phase. Further consideration of construction-related impacts is outlined below

4.1.1 General Construction Impacts

It is expected that the construction process will start shortly after issuance of the necessary permits from the Town, and last about four (4) months. This short duration is due primarily to the nature of the project; since the project does not include construction of any structures but is limited to clearing and grading for the stockpile area, and improving the two internal roadways and office parking area, these stages will be completed quickly.

Construction activities will conform to Town Code Section 251-5 K regulations on hours, which prohibits such activities between the hours of 8:00 PM and 7:00 AM, and will conform to additional applicable Town regulations regarding construction noise generation. It is expected that the project's construction hours will be limited to the hours 7:00 AM to 5:00 PM, and limited to weekdays. In this way, it is expected that potential impacts from noise, dust and truck traffic on the few residences the vicinity would be minimized.

The limited recommended remediation actions given in the Site Characterization Report and Remediation Plan will be completed at the start of the construction process. As these remediation activities would be limited in scope and duration, it is not expected that any significant impacts to the vicinity from noise, dust, truck traffic, etc. would occur.

There could be potential construction impacts generated by noise, erosion, dust vibration and impacts to the adjacent residential homes and commercial properties particularly as related to grading/earthwork and subsequent construction. Noise will occur only during hours when construction is allowed by the Town and therefore is mitigated as much as possible through proper site management. Erosion may occur in exposed soil areas; however, erosion control devices such as silt fencing, groundcovers, drainage diversions, soil traps and conformance with Town construction requirements applicable to site development will mitigate these impacts to

the maximum extent practicable. The potential for dust exists when exposed surfaces are subject to wind forces; however, use of water sprays and minimization of the time span that bare soil is exposed to erosive elements is expected to minimize the potential for impacts to sensitive on- or off-site natural or developed areas. The use of "rumble strips" (which cause truck tires to shed any mud trapped within the tire treads) at the construction entrance will reduce soil on truck tires from being tracked onto adjacent roadways, thereby minimizing the potential for dust to be raised. Additional information is provided in Sections 1.5.1 and 1.5.2 as related to erosion and dust control.

Construction Noise

Potential noise impacts, including construction noise are addressed in Sec5tion 3.2 of this DEIS. **Appendix G** provides a noise analysis. The following excerpts from the noise report is provided as related to construction. (Note: reference to tables in the text below relates to **Appendix G**.)

3.3 Construction Sound Analysis

During construction, noise levels will be (1) temporary and (2) will occur at two distinctly different levels. First, the temporary component results from the transient nature of the construction process. The U.S. EPA reports sound levels at construction projects range from a high of 88 dB(A) to a low of 75 dB(A) from grading through finishing operations (U.S. EPA, Construction Noise Control Technology Initiatives, 1980, Table 2.2-as measured at 50 feet).

The approximate location of the proposed construction occurs between both Manor Road and Middle Road. The noise generated during construction is due mainly from diesel engines that run the equipment. Exhaust is typically the predominant source of diesel engine noise, which is the reason that maintaining mufflers on all equipment is imperative. Noise measurements from some common equipment used in construction (aside from referenced above) can be found in *Assessing and Mitigating Noise Impacts* (October 6, 2000 revised February 2, 2001). See Tables 6A and 6B.

No sensitive receptors are within the immediate vicinity of this project. The noise created by the initial phase of the construction process, levels ranging from 75 to 88 dB(A) on site will decrease as a function of distance. Given initial noise measurement standardized at 50 feet from the sound source, every doubled distance will decrease the noise level by approximately 6 dB(A).

Once "rough grading" has been finalized and foundations have been poured then, peak upper sound levels will decline in duration as the construction uses tools which are (1) smaller, (2) less continuous in use and (3) begin to move "indoors." During the subsequent phase of construction, heavy equipment is generally replaced by internal work and hand-equipment for external work. Consequently, it is expected that sound levels at the point of generation will further be reduced to 55 to 75 dB(A). This level of intermittent noise (up to several hours per day) is expected to occur for approximately one year.

At present, the ambient sound levels are primarily a function of traffic on the adjacent local roadways. Temporary noise impacts (i.e., sounds will be audible and distinct but not significantly higher than the current ambient levels for long periods) are anticipated during site construction due to the already amplified ambient sound levels due to traffic.

4.1.2 Soil Removal

As noted in **Sections 1.4.2 and 1.5.1**, an estimated 2.96 acres of the site will be cleared for the proposed project. The **Grading & Drainage Plan** shows that soil disturbance will occur on most of the site; much of the northern half will be cleared and graded to accommodate the proposed concrete crushing and screening operation, and parts of the southern portion will be cleared and excavated for the site's drainage system. An estimated 9,000 CY of excess soil will be generated during grading operations, and would then be removed from the site.

Soil removal from the site is expected to result in temporary truck traffic. Assuming 20 trucks per day, based on 40 CY trucks filled with 32 CY per truck, 640 CY per day can be removed from the site. Based on a 5-day work week, it would take approximately 3 weeks to remove this material from the site. Based on a 10-hour day (between 7 AM and 5 PM), there would be approximately 4 trucks per hour leaving the site, and 4 trucks per hour entering the site. Material removed from the site would be transported off-site to other construction industry use facilities. The subject site is within an industrial area and convenient road access to the Long Island Expressway is available. As a result, temporary trucking activities will have a minor impact on roads to/from the site; however, the impact is expected to occur for a 3-week period, between 7 AM and 5 PM, and will be limited to approximately 8 truck trips per hour. This level of temporary inconvenience is not considered significant given the limited time period of the operation, limited truck trips and limited hours of operation, as well as the industrial nature of the area, and convenient access to major roads for off-site transport.

In consideration of the above, the potential impacts of this soil removal operation would be limited in scope and duration.

4.1.3 Mitigation Measures During Construction

The drainage system discussed in **Section 1.4.2** will comply with requirements under NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP 0-15-002) and Chapter 275 of the Town Code. Under these requirements, a SWPPP (if required) be prepared and submitted for Town review and approval as a condition to final site plan approval. The SWPPP evaluates the proposed drainage system to ensure that it meets the NYSDEC and Town requirements for treatment and retention of stormwater runoff. The SWPPP must demonstrate that the proposed stormwater management system is sized adequately to ensure that there is no net increase in peak stormwater discharges from a property once developed. Additionally, the SWPPP will include details of the erosion controls to be employed during construction; these measures are discussed below and shown on the Erosion Control Plan and

the **Erosion Control Details** sheets.

Drainage Plans and a Preliminary Network Diagram and Hydrograph Comparison will be prepared to establish that the SWPPP will ensure that post-development stormwater will be less than pre-development stormwater. The dimensions, materials, and installation for all erosion and sediment control practices are subject to Town review and approval under the site plan review.

Because of the measures discussed below, significant amounts of sediment will not be transported off-site by runoff, so that no significant impact on adjacent sites is expected. However, should any sediment escape from the site, it will be swept back onto the site on (at the least) a daily basis by manual or mechanical means (depending upon the amount of fugitive sediments) under the direction of the construction manager. During the construction process, inspections of the construction site will be regularly performed under the supervision of a qualified professional to ensure that erosion controls are properly maintained.

The construction manager, in combination with the various specialized contractors, will be responsible for all construction activities, and installation and maintenance of the erosion and sediment controls. The construction manager will also be responsible for ensuring proper storage and stockpiling of construction materials and that building supplies will be stored in designated areas, and that measures are implemented to prevent/reduce wind-blown dust. The construction manager will be responsible for securing an approved carter to empty the construction waste dumpsters and haul waste from the site to an approved location for disposal.

In summary, redevelopment of the subject property is not anticipated to result in significant erosion/sedimentation or stormwater impacts due to the use of proper site grading procedures, implementing erosion controls and, for the long-term, use of a properly-designed drainage system.

4.2 Cumulative Impacts

Cumulative impacts are the potential impacts of a proposed project taken in conjunction with those of other active or anticipated nearby development projects, where the sum of the individual impacts may potentially result in cumulative impacts that are greater than the individual impacts from each project. An analysis of cumulative impacts is generally required within a Draft EIS when it is expected that multiple projects within the same area may result in a greater cumulative impact than is suggested by impact analyses of the individual actions.

As described in The SEQR Handbook, cumulative impacts are:

> Cumulative impacts occur when multiple actions affect the same resource(s). These impacts can occur when the incremental or increased impacts of an action, or actions,

added to other past, present and reasonably foreseeable future actions. Cumulative impacts can result from a single action or from a number of individually minor but collectively significant actions taking place over a period of time. Cumulative impacts do not have to all be associated with one project sponsor or applicant. They may include indirect or secondary impacts, long-term impacts and synergistic effects.

As per the Final Scope for this DEIS and additional input from the Town, the Town was contacted during the preparation of the Traffic Impact Study, to determine if there were any "other planned projects" in the area that should be considered with respect to traffic. No other planned projects were provided as part of this search. As a result, the proposed project can be considered on its own, without the need for cumulative impact analysis. Of course, there are vacant lands which have potential for future development in conformance with Town zoning, market demand, and property owner intent; however, since no projects are "planned" or pending approvals within the Town planning offices, the definition for cumulative impacts is not met, and no further cumulative impact analysis is needed.

4.3 Adverse Impacts that Cannot Be Avoided

The existing site conditions have been characterized and the potential impacts of the proposed project have been assessed. Some impacts may still exist for which no mitigation is available. The impacts themselves have been quantitatively and qualitatively discussed in previous sections of this document. The impacts of the proposed project will be minimized where possible, but this section acknowledges those impacts which may still occur:

Short-Term/Construction Period Impacts

- Despite implementation of the proposed mitigation measures, localized erosion impacts may occur but will be controlled to the maximum extent practicable.
- Despite implementation of the proposed mitigation measures, fugitive dust may still be generated though water truck spray and on-site management will seek to control any such impacts.
- Construction vehicle-related traffic will occur, which may adversely impact local traffic conditions though this will be temporary and not permanent.
- Despite implementation of the proposed mitigation measures, noise associated with construction activities will be generated, which may adversely impact local residents; however, construction will comply with hours of operational requirements of the Town.

Long-Term/Post-Construction Impacts

- Increased intensity of land use on the site (over current site conditions).
- Clearing, grading, and redevelopment on the site.
- Increase in vehicle trips generated on-site and on area roadways over existing conditions; however, no impacts were identified and no mitigation is required).

- There will be an increased potential need for emergency services of the Riverhead Police Department and the Riverhead Fire Department (offset by increases in tax revenues generated by the proposed project).
- There will be increased demand on the energy services of PSEGLI (to be paid for according to rate tariffs).

4.4 Irreversible and Irretrievable Commitment of Resources

This section is intended to identify those natural and human resources listed in **Sections 2.0 and 3.0** that will be consumed, converted or made unavailable for future use as a result of the proposed project. Development of the proposed project will result in irreversible and irretrievable commitment of resources. The importance of this commitment of resources is not anticipated to be significant however, due to the fact that these losses do not involve any resources that are in short supply, semi-precious or precious to the community or region, or are otherwise substantial.

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

- Energy and related resources used in the construction, operation and maintenance of the proposed project, including fossil fuels, electricity and water.
- Potable water to be consumed by the operation of the project, totaling an estimated 328 gpd.

4.5 Effects on the Use and Conservation of Energy Resources

An increase in the consumption of energy resources would typically be expected from the intensification of land use on a site. The subject site had previously been developed as a residential use, so that it had consumed electricity from the public (PSEGLI) system. Natural gas is not available at the site, therefor no use of such resource will occur.

The proposed project is atypical with respect to energy use, in that it is not expected to significantly increase consumption of energy supplied by public services. That is, the project does not include any new structures; in fact, construction activities will be mostly clearing and grading operations, with lesser effort involved for the new drainage system and other improvements to the internal roadway and parking spaces. The crushing and screening equipment will be mobile in nature, so that no permanent installations are involved. The existing residence and garage/barn structure will remain; the residence will be converted for office use for the operation, and the garage/barn will continue to be used for storage.

As a result, the existing residence will continue to be occupied and will continue to consume electricity and natural gas, but those occupants will be employees, not residents. Generally, because of the new operations on the site, the amounts of energy consumed will be increased

from existing levels, but that energy increase would not be provided from the public supply networks of either PSEGLI or National Grid. Each piece of the new crushing equipment will be powered by diesel fuel, not electricity or natural gas, and the diesel fuel will be delivered by a commercial fuel supplier in a tanker/pump truck. As a result, the amounts of electricity and natural gas supplied to the site by PSEGLI and National Grid, respectively, are not expected to significantly change from their existing levels.

It is expected that the public utility services of PSEGLI (for electricity) will continue to be more than adequate to meet the demand, as these public entities have been chartered specifically to provide and maintain capacity to properly serve the public. It is not anticipated that the continued energy demands of the project will result in any significant adverse impacts on the use and conservation of energy resources.

4.6 Growth-Inducing Aspects

Growth-inducing aspects of a proposed development are those project characteristics which would cause or promote further development in the vicinity, either due directly to the project, or indirectly as a result of a change in the population, markets or potential for development in that community. Direct impacts might include, for example, the creation of a major employment center or institutional facility, installation or extension of infrastructure improvements or the development of a large residential project, particularly if that project were designed for a specific age group. An indirect impact would cause an increase in the potential for further development in an area, which in turn would result in direct impacts.

The proposed project is an industrial use, on a site that is zoned for industrial use, and abuts substantial acreages of industrial uses that are all complementary to that of the proposed project. The proposed project will not create a major employment center or install/extend infrastructure improvements. The proposed project conforms to the recommended use of this site as specified in the Town Comprehensive Plan.

Construction will create a small number of both short-term and long-term job opportunities. In the short-term, development will create construction jobs. In the long-term, the proposed project will create a small number of permanent jobs. These jobs may be filled first from within the local labor pool. These job opportunities would not require relocation of specialized labor forces or influx of large businesses from outside the area to provide construction support. This jobs creation is expected to represent a minor but positive employment and economic impact on the local fiscal environment.

The absence of any other pending projects in the area indicates that there is currently no trend for growth in the area. Typically, a proposal for new development in an area where no other applications are pending would be taken as a trigger for additional growth in the area. However, the proposed project is for an industrial use on industrially-zoned land in an area dominated by low-density residential use and agriculture use, in a predominantly rural region. Thus, the nature

of the proposed project could be taken as growth inducement, but limited to the extent for additional, complementary industrial use, and would not extend to growth inducement for other types of land use that are more complementary to the above-noted residential and rural character of the region.

SECTION 5.0
ALTERNATIVES

5.0 ALTERNATIVES CONSIDERED

SEQRA requires the consideration of alternatives to the proposed project. The specific alternatives to be analyzed should represent uses and yields that are reasonable to and feasible for the applicant, and implementation of technologies for these alternatives and other options to the proposed project that would achieve the applicant's objectives must be within the applicant's capabilities. More specifically, 6NYCRR Part 617.9(b)(5)(v) indicates that alternatives should 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."* The purpose of the alternatives analysis is to determine the merits of the proposed project as compared to those of other possible uses, sites and technologies that would also achieve the applicant's objectives, and potentially reduce environmental impacts. The discussion and analysis of the alternatives should be conducted at a level of detail sufficient to allow for this informed comparison by the decision-making agencies. Alternative 1 is the "No Action" alternative, which is required by SEQRA and is intended to represent site conditions if the proposed project is not implemented.

For the subject application, the following alternatives were evaluated:

- **Alternative 1: No Action** - assumes that the site remains unchanged from its current use and condition.
- **Alternative 2: Development per Existing Zoning (Warehouse/Self-Storage Facility)** - assumes re-development of the site with a use that is allowed as-of-right in the site's Industrial A zoning district.
- **Alternative 3: Development per Existing Zoning (Agricultural Production/Nursery Grower) -** assumes re-use of the site with a use that is allowed as-of-right in the site's Industrial A zoning district.

Table 5-1 compares the site and development characteristics and impacts of the proposed project and those of the alternatives considered herein.

5.1 Discussions of Alternatives

5.1.1 Alternative 1: No Action

This alternative assumes that the proposed project is not implemented, so that the subject site remains in its existing use and condition (see **Appendix A-1**). Under this scenario, the subject parcel would continue to be an overgrown, unmaintained wooded property developed with a single unoccupied residence that is in a state of disrepair. The in-ground swimming pool/patio area and the tennis court would remain overgrown and unmaintained as well. Other features on the site including the small man-made pond, the adjacent wooden bridge, and the garage/barn structure would also continue to decay due to the lack of maintenance.

Table 5-1
COMPARISON OF SITE AND PROJECT CHARACTERISTICS & IMPACTS
Alternatives 1 - 3 and Proposed Project

Parameter	Alt. 1	Alt. 2	Alt. 3	Proposed
Land Use Type	Residential (vacant)	Industrial	Agricultural Production	Industrial
Yield	1 Unit, with pool/patio & tennis court	Warehouse, 116,390 SF	Nursery Grower	Asphalt & concrete crushing/screening facility
Zoning	Industrial A			
Wastewater Treatment System	On-Site Septic System			
Coverages (acres)**:**	---	---	---	---
Buildings	0.18	2.67	0.05	0.15
Paved/Impervious Surfaces	0.07	2.00	0.11	0.38
Unpaved Surfaces/Equipment	0.9	0	0	0.62
Material Stockpiles	0	0	0	1.63
Pervious (RCA)	0	0	0	0.61
Agricultural Field or Old Field	1.56	0	6.00	0
Man-Made Pond	0.01	0	0	0
Landscaped	0	0.49	0.26	1.47
Naturally-Vegetated	4.77	1.50	0.26	1.82
TOTAL	6.68			
Water Resources:	---	---	---	---
Domestic Use/Wastewater (gpd)	0 / 300 (1)	4,656 (2)	120	343
Irrigation Water Use (gpd) (3)	0 / 387	387	9,314	387
Vehicle Trips (vph)**:**	---	---	---	---
Weekday AM Peak Hour (4)	0 / 6	39 / 12	5	15
Weekday PM Peak Hour (4)	0 / 1	42 / 20	10	15
Saturday Midday Peak Hour (4)	0 / 19	6 / 36	11	18
Miscellaneous:	---	---	---	---
Site Occupants/Employment (5)	0 / 2.53	140.6 / 97	5	6
Parking Required (spaces) (6)	1	16 / 291	7	14
Parking Provided (spaces) (6)	4	16 / 291	7	14 (7)

(1) House/property currently vacant; could be used as residence with 300 gpd water use, vehicle trips, occupancy.
(2) Based on SCDHS Commercial Standards; office = 2,628 @ 0.06 gpd/SF; storage = 3,521 @ 0.04 gpd/SF.
(3) Landscape/agricultural irrigation based on 1"/week for 20 weeks over landscape/agricultural area; each use has ~0.26 acres irrigated landscape; agriculture has 6 acres irrigated farm; all values annualized.
(4) No Action is vacant or Single-Family Home; Industrial is Warehouse or Mini-Warehouse; Agriculture based on Nursery (wholesale); trip generation rates per ITE Trip Generation Manual, 10th edition.
(5) Site occupants are, No Action = average Riverhead household; Industrial = 140.6 for Warehouse and 97 for Mini-Warehouse; Agriculture = 5 (estimated), and Proposed Project is per the proposed action.
(6) Parking determined using Riverhead Zoning Code, Chapter 301; 301 Attachment 1 Parking Schedule; Industrial Use parking determined for Industrial/Manufacturing and Warehouse; Agricultural Use = general commercial based on building size.
(7) Includes 3 landbanked spaces.

Because the site would remain vacant, it would not consume electricity (from the public grid), or water (from the on-site well). As the site is not connected to the natural gas supply system or the public sanitary sewer system, impacts to these services would not occur.

The site would continue to not contribute to the fabric of the community, and would remain an unsightly neighborhood nuisance and safety hazard. The expressed Town intent to bring the site into conformance with the applicable Town Code standards (associated with the prior unauthorized clearing) would not be satisfied in this scenario. Finally, under Alternative 1, the site would retain the potential for redevelopment in accordance with its existing Industrial A zoning.

Alternative 1 could also involve occupancy of the existing single-family home on the site. This would result in sanitary waste, water use, vehicle trip generation and site occupancy associated with a single-family home and indicated in **Table 5-1**.

This alternative is not in keeping with the applicant's goals and objectives. The applicant did not purchase the property to leave it vacant or use it as a single-family residence. The applicant purchased the subject property with the intent to locate a portion of his business operation on it, and to put it into productive use in conformance with the ZBA's determination that the site may be used for C&D debris processing.

5.1.2 Alternative 2: Development per Existing Zoning (Industrial/Warehouse/Self-Storage Facility)

The subject site is zoned Industrial A. This alternative contemplates use of the site in conformance with existing zoning. Typical industrial uses may include general light industrial use, warehouse (with some percentage of office to support a warehouse operation), and/or a self-storage warehouse facility, also known as mini-storage. The Final Scope outlined the need to address a use that conforms to existing zoning, and indicated the following with respect to this alternative: "Warehouse: The alternative is a permitted use in the Industrial A zoning use district. A "Self-Storage" type facility." This alternative focuses on warehouse and self-storage, recognizing that other industrial uses are permitted, including agriculture, which is included as Alternative 3, and is an additional alternative required in the Final Scope.

As noted, there are a variety of uses allowed under the existing Industrial A zoning. The permitted uses are outlined in Article XXIII; Chapter 301; § 301-114 A., and include a variety of light industrial uses that are more specifically listed in **Section 3.1.1** of this DEIS.

Given the list of permitted uses, general industrial, warehouse and/or self-storage warehouse facilities are appropriate for consideration. As provided for in Riverhead Zoning Code, Chapter 301; 301 Attachment 3 Commercial Districts Schedule of Dimensional Regulations, the maximum building lot coverage (without sewers), in the Industrial A district, is 40%, and the corresponding maximum floor area ratio (FAR) is 0.40. Based on these dimensional regulations,

a 1-story building of 116,390 SF is anticipated. The building would have a maximum height of 30 feet, per code requirements, and would be placed within the property in conformance with various setback requirements as outlined in 301 Attachment 3 Commercial Districts Schedule of Dimensional Regulations. The building would be typical in appearance to warehouse facilities in the Town with pre-fabricated metal siding in earth tone color. The site would have landscaping and lighting typical of an industrial use, and retention of natural vegetation (or restored natural landscape buffer) as required in § 301-15.

Dimensional requirements include a 100 foot front yard depth, a 75 foot rear yard depth and a 50 foot side yard depth. In addition, 15% landscaped open space is required per § 301-15B, as well as 50 foot side yards adjoining residential use and districts per § 301-15C (1)(a), with screening consisting of six-foot high stockade fence and landscape plantings.

Parking would be provided in conformance with 301 Attachment 1 Parking Schedule. For general industrial use, parking is required at 1 stall per 400 SF of building area, or 291 stalls. Based on the parking requirements for general industrial use, it is expected that smaller building would be needed to meet the parking requirements. As a result, this use is not considered feasible. For warehouse (which would include a warehouse operation or self-storage) parking is required at 1 stall per 1000 SF up to 5,000 SF, and 1 stall per 10,000 SF for the remaining building area, or 16 stalls. Warehouse or self-storage warehouse are considered feasible uses for the site. Primary access to the site would be from Manor Road, which affords the most convenient access to Route 25 and the LIE.

This alternative is not in keeping with the applicant's goals and objectives. The applicant did not purchase the property to use it for warehouse or self-storage use. The applicant does not operate such facilities, nor does the applicant have an interesting in operating such facilities. The applicant purchased the subject property with the intent to locate a portion of his business operation on it, and to put it into productive use in conformance with the ZBA's determination that the site may be used for C&D debris processing.

5.1.3 Alternative 3: Development per Existing Zoning (Agricultural Production/Nursery Grower)

This alternative would involve agricultural production, similar to a nursery grower use. A nursery would include a small building for office, maintenance, equipment and storage needed to manage the facility and the balance of the 6.68 acre property would be used for growing of nursery stock, typical of similar nursery uses. It is noted that, on its own, the property is smaller than most nurseries in the Town. A 40'x50' (2,000 SF) 1-story building would be located on the south part of the site, and would include access from Middle Road and a small parking area based on general parking requirements of 1 stall per 300 SF of building, or 7 stalls. Nursery stock would occupy approximately 6 acres of the site including the central and northern parts of the property. A separate access for trucking nursery stock materials on and off site would be provided on Manor Road.

This alternative is not in keeping with the applicant's goals and objectives. The applicant did not purchase the property to use it for agricultural production. The applicant does not operate such facilities, nor does the applicant have an interest in operating such facilities. The applicant purchased the subject property with the intent to locate a portion of his business operation on it, and to put it into productive use in conformance with the ZBA's determination that the site may be used for C&D debris processing.

5.2 Comparison of Impacts vs. the Proposed Project

5.2.1 Surface and Subsurface Soils

Alternative 1 would not involve any soil disturbance or changes to the site. Alternative 2 would involve full utilization of the site, with extensive grading for establishment of a warehouse building or buildings and associated parking. Excavations would be greater in order to provide a suitably level site for the proposed use. More drainage would be required due to the impervious areas for the building and parking, and as a result, more excavation would be required for drainage. Excavation and soil removal would be expected to exceed that of the proposed project; however, and would represent a temporary, short-term impact in terms of soil removal and installation of drainage and building construction. Alternative 3 would disturb all soils on the site for agricultural use; however, extensive excavation would not be expected given the shallow disturbance of soils for farming and the small building and parking area to be installed. On balance, it is expected that the Proposed Project has less impact than Alternative 2, and greater impact than Alternatives 1 and 3, with respect to surface and subsurface soils.

5.2.2 Wastewater/Water Use

Alternative 1 would generate no wastewater if left unoccupied, and 300 gpd if occupied as a single-family dwelling, which is similar to the proposed project. Alternative 2 would generate 4,656 gpd of wastewater based on SCDHS design flow factors, which is substantially more than the proposed project. Alternative 3 would generate 120 gpd based on SCDHS design flow factors for the building, which is about one-third the wastewater generated by the proposed project. Comparisons between alternatives are provided in **Table 5-1**.

Alternative 1 would have no irrigation water use if left unoccupied, and would involve 387 gpd (annualized) for about one-quarter acre of landscaped area if occupied as a single family dwelling. This is similar to the proposed project. Alternative 2 would involve 387 gpd (annualized) for about one-quarter acre of landscaped area for an industrial use, which is similar to the proposed project. Alternative 3 would have a substantial water demand for irrigation of the nursery, and a small water demand for irrigation of about one-quarter acre of landscaping for the support building and entrance area. Irrigation demand would total 9,314 gpd (annualized). This is substantially greater than the proposed project. Comparisons between alternatives are provided in **Table 5-1**.

5.2.3 Ecology

The site currently has 4.77 acres of woodland vegetation and other disturbed areas in various forms of succession including old field. The site is surrounded by agriculture to the west, Manor Road and agriculture to the north, residential and commercial to the east, and Middle Road, commercial use, and a pre-cast use to the south. Most areas surrounding the site and on-site are characterized by intense use with minimal ecological resources expected due to road activity, commercial activity and farming.

Alternative 1 would have the site remain as it currently exists, which would include a cleared area in the center of the site, and a cleared area in the south part of the site where there is a residence. The site would sustain the existing ecological resources that occupy the existing vegetated areas on the site. Alternative 2 would involve extensive use of the site for industrial purposes (warehouse), which would leave about 1.50 acres of natural and 0.49 acres of landscaped area. This alternative would have a greater impact on ecology than the proposed project. Alternative 3 would involve extensive farm use of the site. Minimal natural areas and landscaping would be established on the site. Farm use requires disturbance over most of the site for equipment operation, soil preparation, and installation and removal of plant stock. This alternative would have a greater impact on ecology than the proposed project.

5.2.4 Air Quality

Air quality is a function of the activity level and potential for generation of emissions and/or fugitive dust, based on the various alternative use scenarios. Alternative 1 would not result in any changes to the site if unoccupied, and if the house is occupied, fuel emissions for automobiles and heating systems would be needed. In either case, this alternative has less impact than the proposed project. Alternative 2 would involve industrial use. In the case of warehouse, minimal heating needs would be met, and low intensity auto use would occupy the site. This alternative has less air quality impact than the proposed project. Alternative 3, or agricultural use would have the potential to generate equipment air emissions, vehicle air emissions, and fugitive dust from farm/nursery operations. This alternative would have some level of air quality impact depending on the intensity of agricultural use and would be expected to have marginally less air quality impact as compared to the proposed project. The proposed project includes a detailed air impact analysis report that finds that impacts are not significant.

5.2.5 Land Use, Zoning and Plans

Alternative 1 would leave vacant Industrial A land, or occupancy of a single-family home if the residence is occupied. Residential use is not permitted in the Industrial A zone, therefore, this use would be a pre-existing, non-conforming use. This alternative would conform with land use plans by retaining Industrial A use potential of the site. Alternative 2, industrial use, would conform with the land use character of the area, and the existing zoning of the site. This alternative would conform with land use plans by retaining Industrial A use of the site.

Alternative 3, agricultural use would conform with the land use character of the area, and the existing zoning of the site which allows agricultural production. This alternative would conform with land use plans by retaining Industrial A use of the site. In comparison to the proposed project, it is noted that the proposed project is found to be an allowable use of the site. Land use between Alternatives 2 and 3 would be similar in terms of impact as compared to the proposed project, in terms of land use, zoning and conformance with land use plans.

5.2.6 Community Character

Alternative 1 would maintain the existing character of the site, and as a result, would cause no change and would have less impact than the proposed project. Alternative 2 would change the character of the site to industrial with a large (or several small) warehouse building(s). The level of activity would increase and the use would be visible in the context of the area. This alternative would have a different character than the proposed project, as it would be more structural with the site improvements for industrial use. Alternative 3 would remove most vegetation from the site and establish a farm use building, and agricultural production areas on the site. This use would conform with other community uses to the north and west, and potentially would have less change in community character than the proposed project. The proposed project would utilize the site in a manner more characteristic of existing uses to the south, and therefore would not be out-of-character with existing dominant uses in the community.

5.2.7 Community Services

Alternative 1 would not generate demand for community service if the house remains unoccupied. If occupied, approximately one school child could be present, and family use would generate demand for municipal and energy services associated with one residence. The site is served by on-site sanitary systems and private wells, therefore, there is not demand for wastewater treatment or water supply. This alternative would likely use fossil fuel for heat and PSEG-LI for electricity. On balance, this alternative would have a greater impact on school and municipal services and a similar impact on energy services as compared with the proposed project. Alternative 2 would likely use fossil fuel for heat and PSEG-LI for electricity. Industrial use would generate tax revenue and would have minimal demand for municipal community services. On balance, this alternative would have a similar demand for services as that of the proposed project. Alternative 3, agricultural use, would require fossil fuel for equipment operation and likely for heat, as well as electricity use from PSEG-LI for the support building. This alternative would likely not generate substantial tax revenue, but would also not require municipal community services. This alternative is not substantially different than the proposed project with regard to community services, except that the proposed project would be expected to generate greater tax revenue.

5.2.8 Transportation

Alternative 1 would not generate traffic if the existing structure is unoccupied, but would generate 6 Weekday Peak AM trips, 1 Weekday Peak PM trip and 19 Saturday trips if occupied as a residence. This is less than the proposed project trip generation for the weekdays, and slightly more than the proposed project on Saturday. This alternative will have slightly less traffic impact overall, than the proposed project. Alternative 2, industrial use would generate more traffic than the proposed project if used for warehousing. Such use would involve 39 Weekday AM Peak trips, 42 Weekday PM Peak trips and 6 Peak hour trips on Saturday. This alternative would have a greater impact on traffic than the proposed project and would be expected to involve truck trips. Mini-warehouse (self-storage) would generate slightly less traffic than the proposed project during the AM Peak hour, more traffic than the proposed project during the PM Peak hour, and twice the trip generation of the proposed project during the Saturday Peak hour. This alternative would involve minor truck traffic. As a result, this alternative has slightly greater traffic impacts than the proposed project. Alternative 3, agricultural use will have slightly less trip generation than the proposed project during Weekday AM and PM Peak periods, as well as the Saturday Peak period. This use would be expected to involve truck traffic. As a result, this alternative has slightly less impact on transportation. **Table 5-1** provides trip generation for each of the uses discussed herein to assist in comparing between alternatives.

SECTION 6.0
REFERENCES

6.0 REFERENCES

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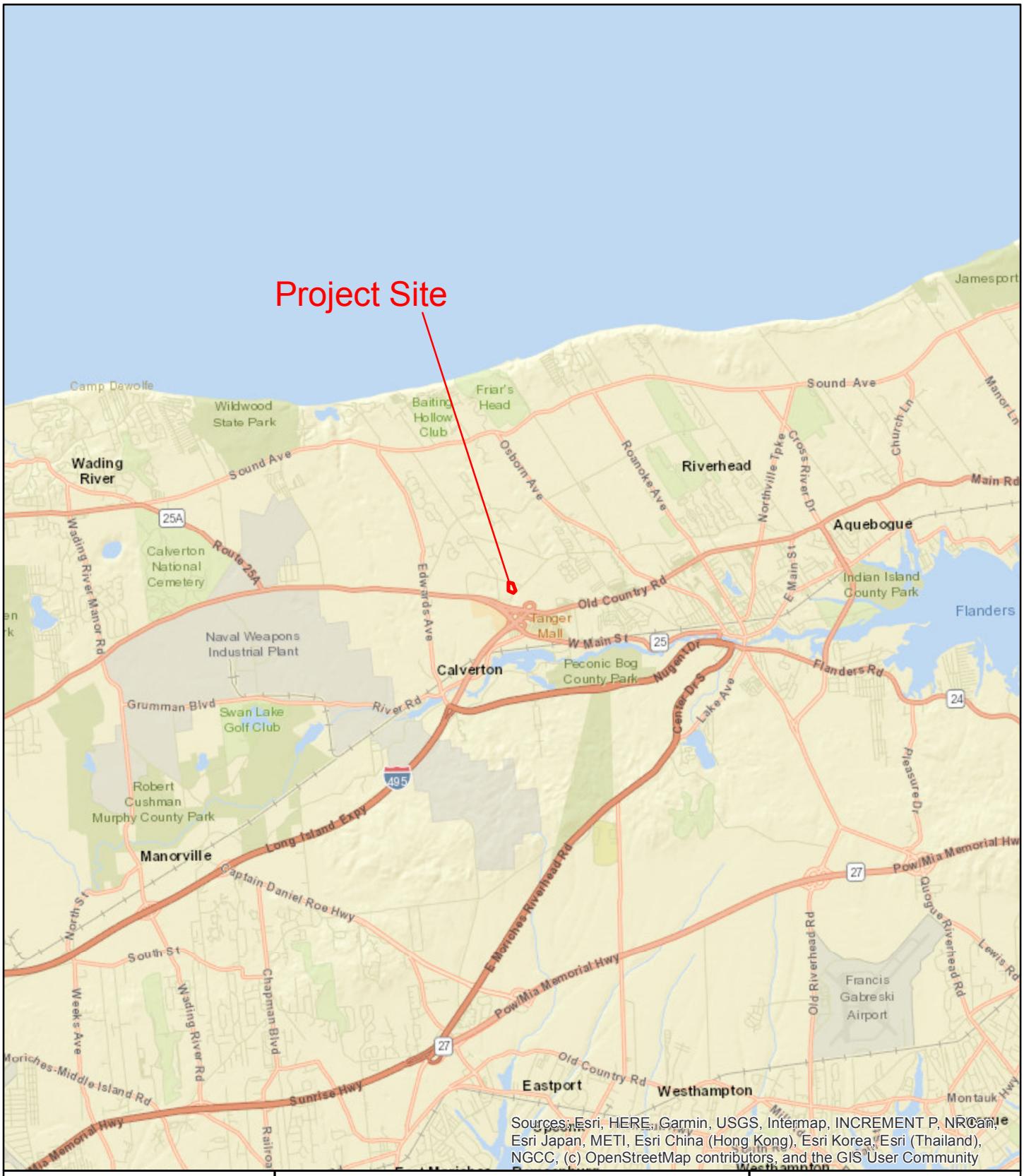
FIGURES



NPV

FIGURE 1-1a
LOCATION MAP, REGIONAL

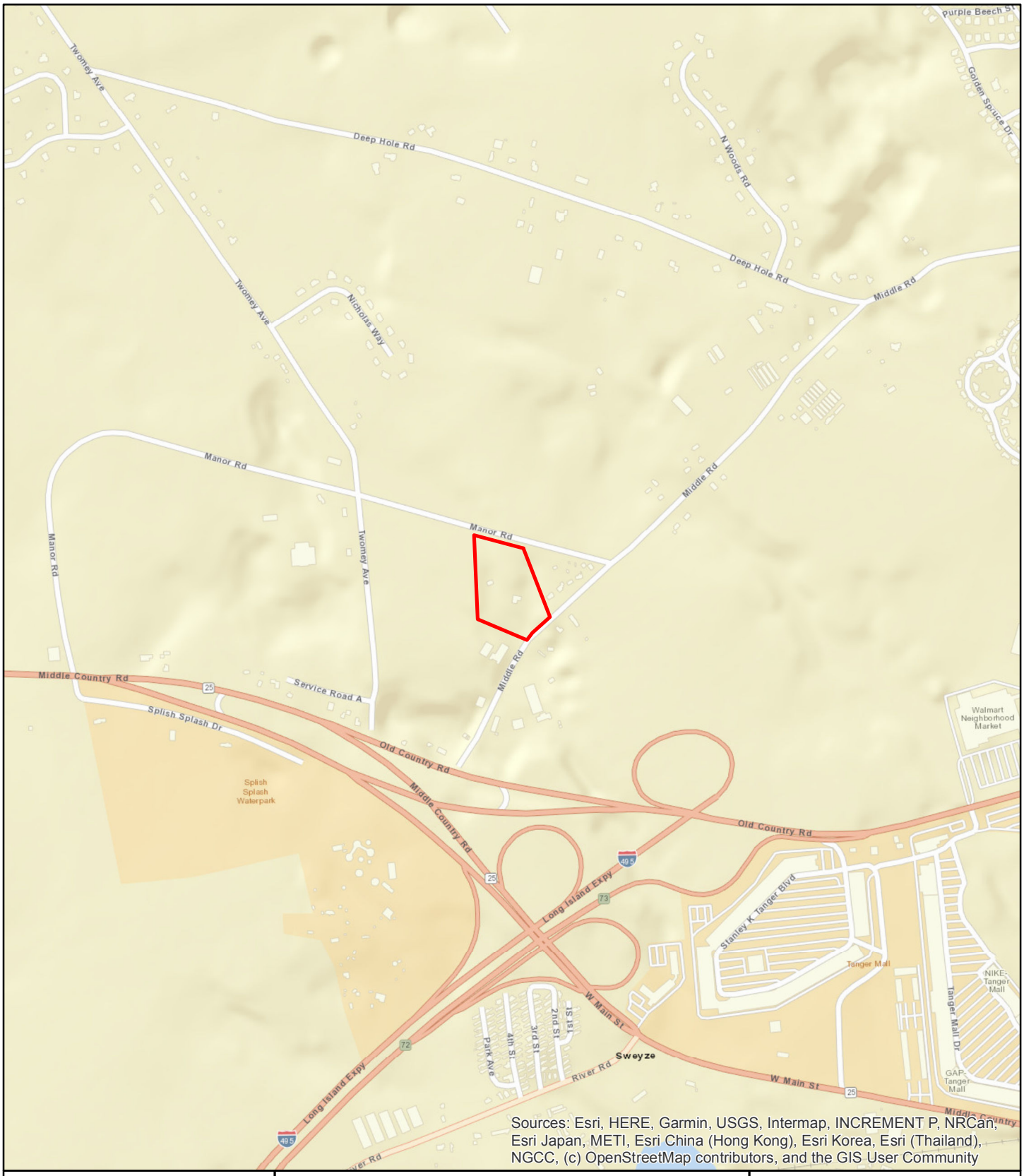
Source: ESRI Web Mapping Service

Scale: 1 inch = 10,000 feet

N

Breezy Hill Group VI, LLC
Calverton

Draft EIS



NPV

FIGURE 1-1b
LOCATION MAP, LOCAL

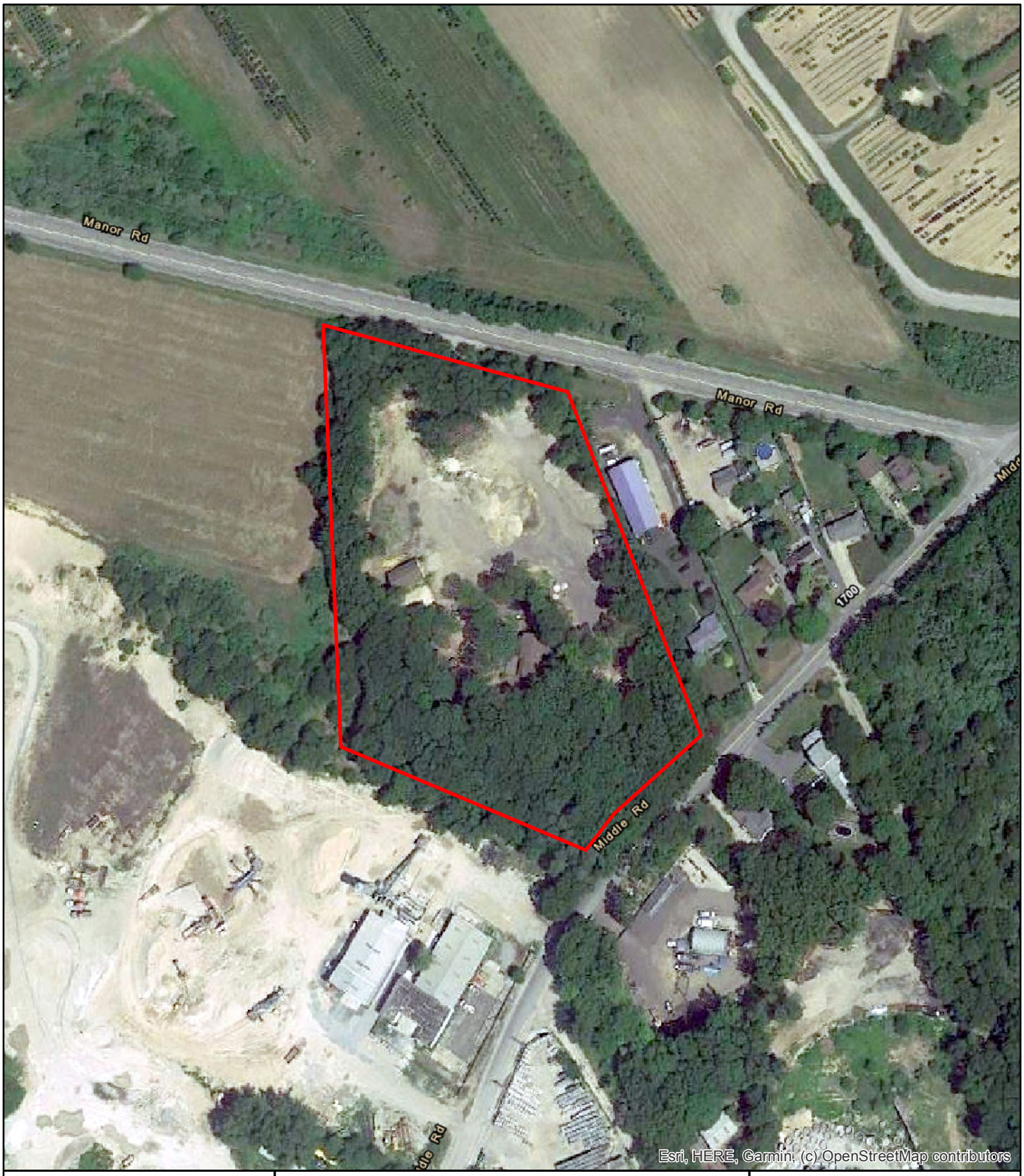
Source: ESRI Web Mapping Service

Scale: 1 inch = 1,000 feet

N

Breezy Hill Group VI, LLC
Calverton

Draft EIS



NPV

FIGURE 1-2a
AERIAL PHOTO OF SITE, 2018

Source: Google Earth Orthophotography, 6/2018

Scale: 1 inch = 200 feet

N

Breezy Hill Group VI, LLC
Calverton

Draft EIS

NPV

FIGURE 1-2b
AERIAL PHOTO OF SITE, 2016

Source: NYS Orthophotography, 2016

Scale: 1 inch = 200 feet

N

Breezy Hill Group VI, LLC
Calverton

Draft EIS

NPV

FIGURE 1-2c
AERIAL PHOTO OF SITE, 2013

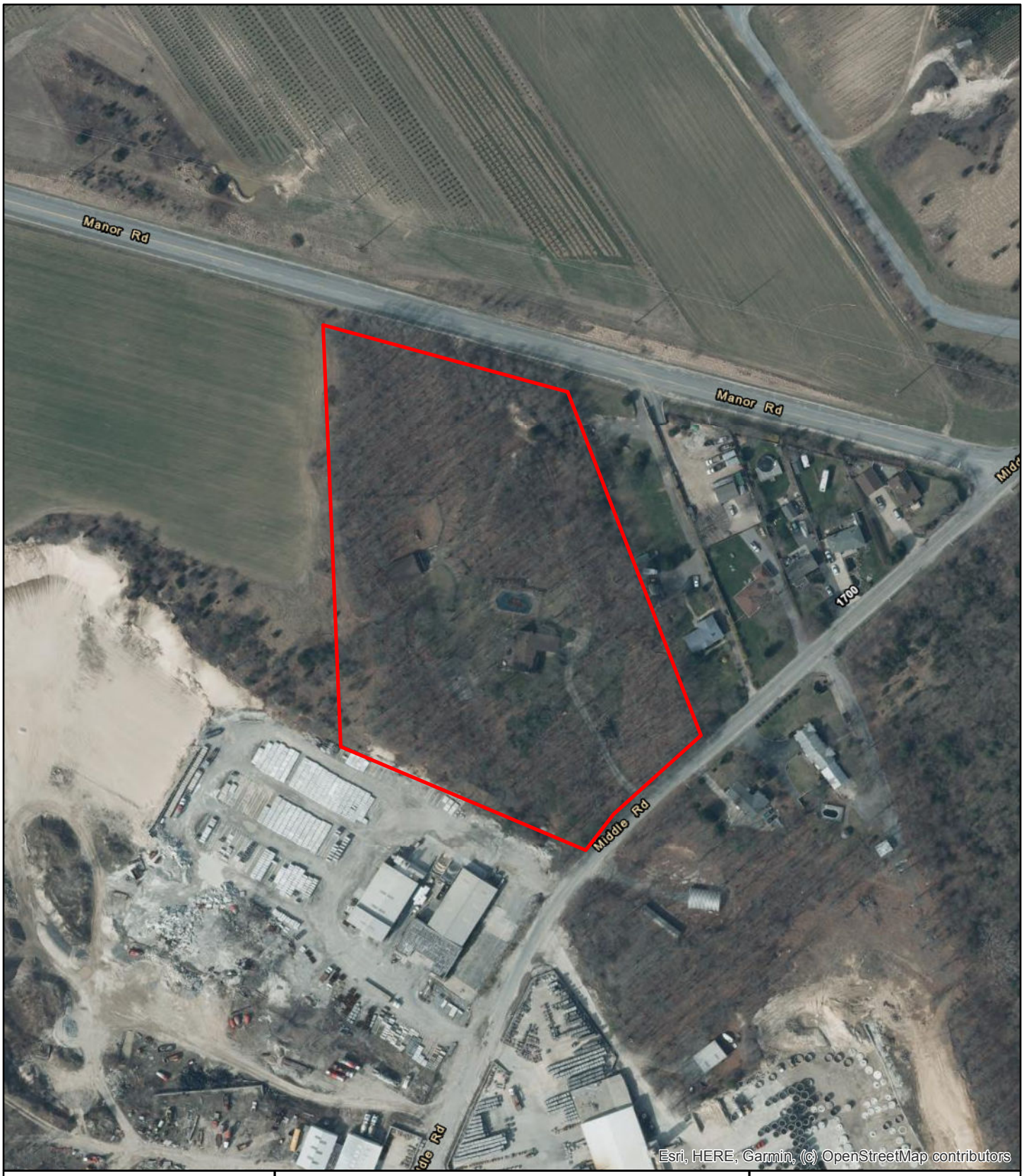
Source: NYS Orthophotography, 2013

Scale: 1 inch = 200 feet

N

Breezy Hill Group VI, LLC
Calverton

Draft EIS



NPV

FIGURE 1-2d
AERIAL PHOTO OF SITE, 2010

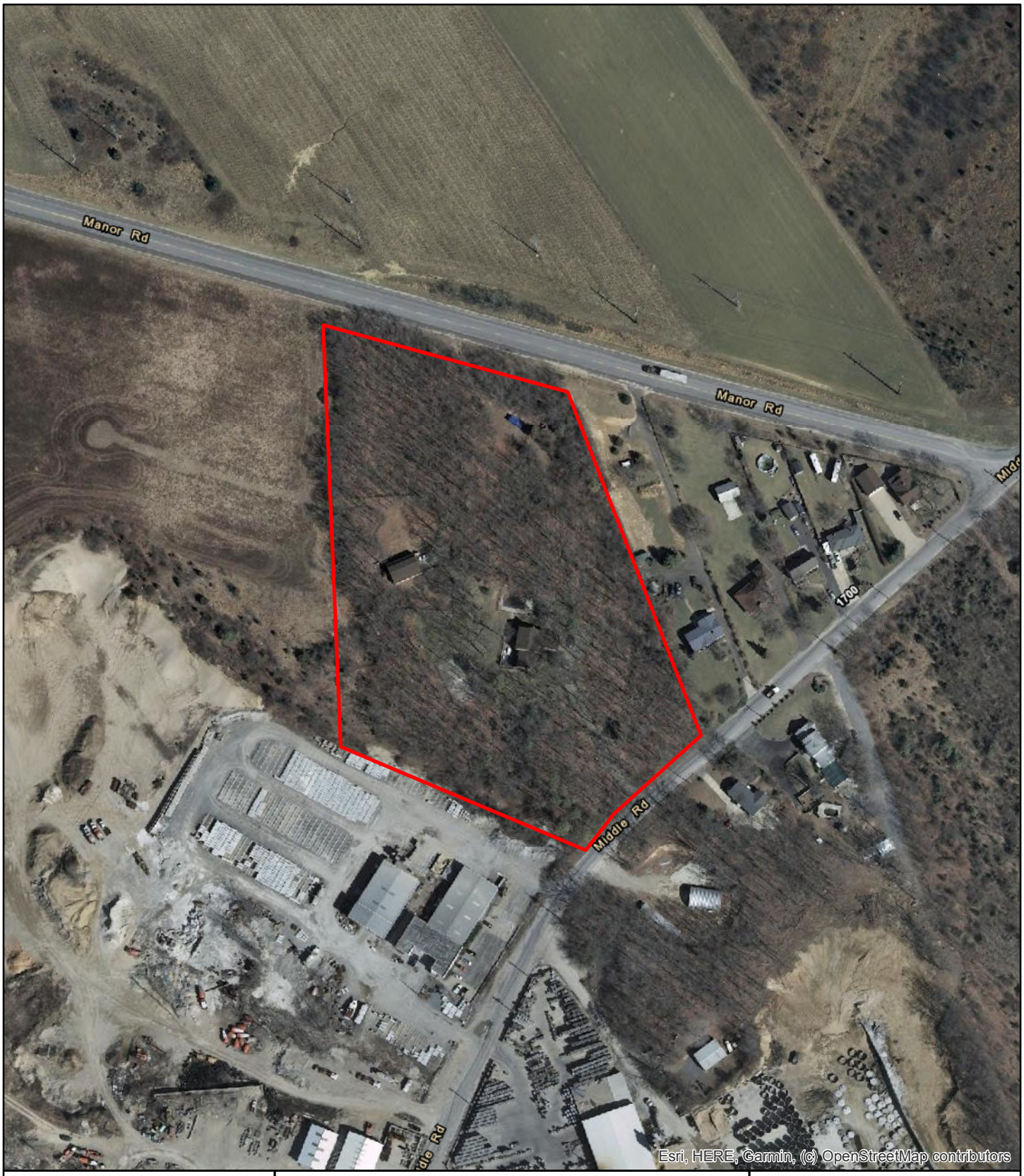
Source: NYS Orthophotography, 2010

Scale: 1 inch = 200 feet

N

Breezy Hill Group VI, LLC
Calverton

Draft EIS



NPV

FIGURE 1-2e
AERIAL PHOTO OF SITE, 2007

Source: NYS Orthophotography, 2007

Scale: 1 inch = 200 feet

N

Breezy Hill Group VI, LLC
Calverton

Draft EIS

NPV

FIGURE 1-2f
AERIAL PHOTO OF SITE, 2004

Source: NYS Orthophotography, 2004

Scale: 1 inch = 200 feet

N

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NPV

FIGURE 1-2g
AERIAL PHOTO OF SITE, 2001

Source: NYS Orthophotography, 2001

Scale: 1 inch = 200 feet

N

Breezy Hill Group VI, LLC
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NPV

FIGURE 1-2h
AERIAL PHOTO OF SITE, 1984

Source: NYS Orthophotography, 1984

Scale: 1 inch = 200 feet

N

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FIGURE 1-2i
AERIAL PHOTO OF SITE, 1962

Source: NYS Orthophotography, 1962

Scale: 1 inch = 200 feet

N

Breezy Hill Group VI, LLC
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NPV

FIGURE 1-2j
AERIAL PHOTO OF SITE, 1947

Source: NYS Orthophotography, 1947

Scale: 1 inch = 200 feet

N

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NPV

FIGURE 1-3a
SITE CONDITIONS, EXISTING

Source: NYS Orthophotography, 2016

Scale: 1 inch = 100 feet

N

Breezy Hill Group VI, LLC
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Draft EIS

FIGURE 1-3b
SITE CONDITIONS PROPOSED

Source: ESRI WMS; Nelson&Pope 6/9/2021
Scale: 1 inch = 100 feet

Breezy Hill Group VI, LLC
Calverton

Draft EIS

1. Crown Sanitation, Transfer Station, 865 Youngs Avenue, Calverton
2. Sky Materials, 4371 Middle Country Road, Calverton
3. TS Haulers, 3968 Middle Country Road, Calverton
4. Horton Avenue Materials, 229 Horton Avenue, Riverhead
5. Riverdead CB, LLC, 1146 Osborn Avenue, Riverhead
6. Guillo Enterprises, Inc., 3829 Middle Country Road, Calverton
7. Crown Recycling Facility, 865 Youngs Ave. , Calverton

Project Site
1792 Middle Road, Calverton

C&D Facilities
Project Site

N

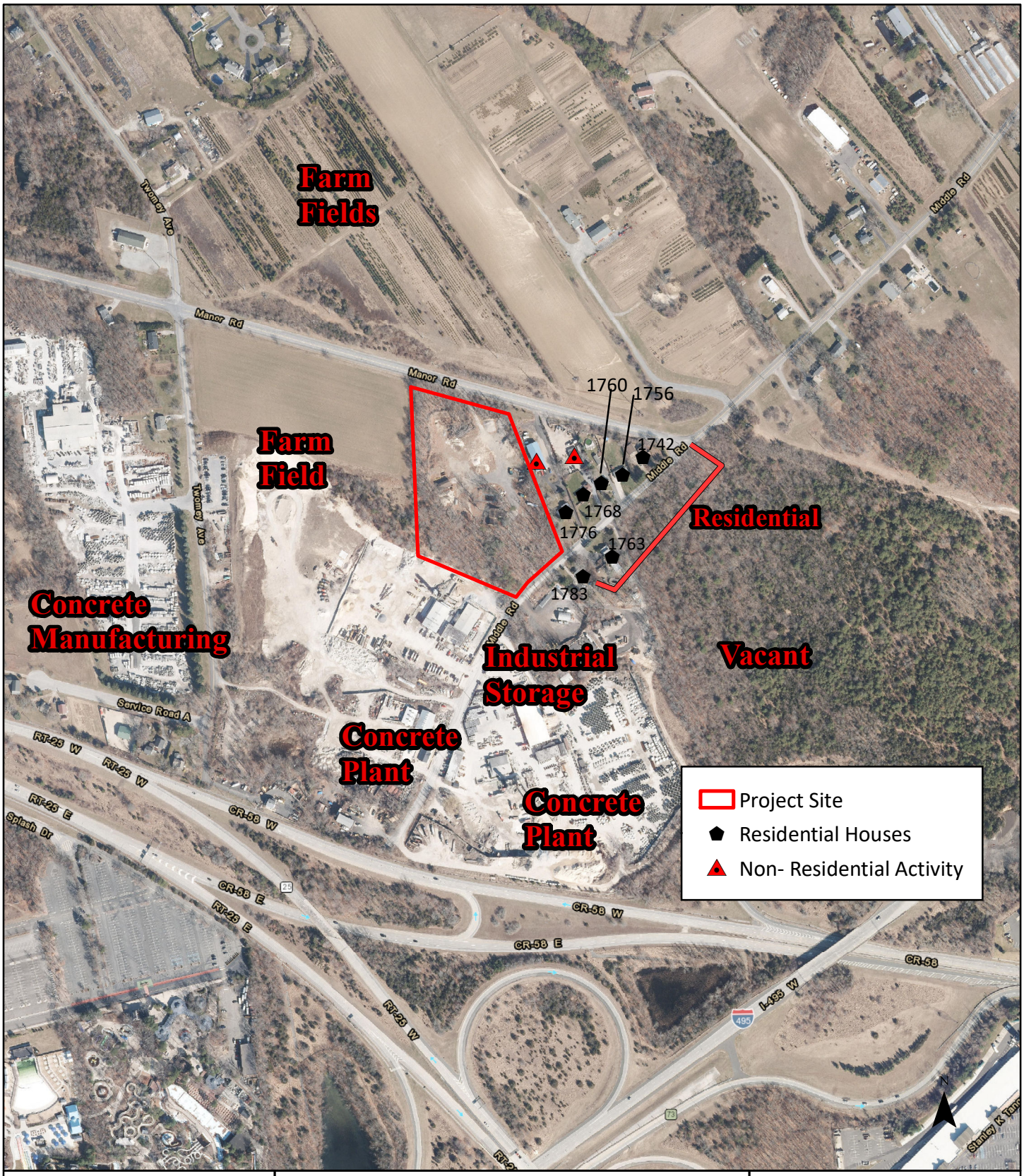
NPV

FIGURE 1-4
REGISTERED AND PERMITTED C&D PROCESSING FACILITIES, CALVERTON AND RIVERHEAD

Source: ESRI Web Map Service
Scale: 1 inch = 3,000 feet

Breezy Hill Group VI, LLC
Calverton

Draft EIS



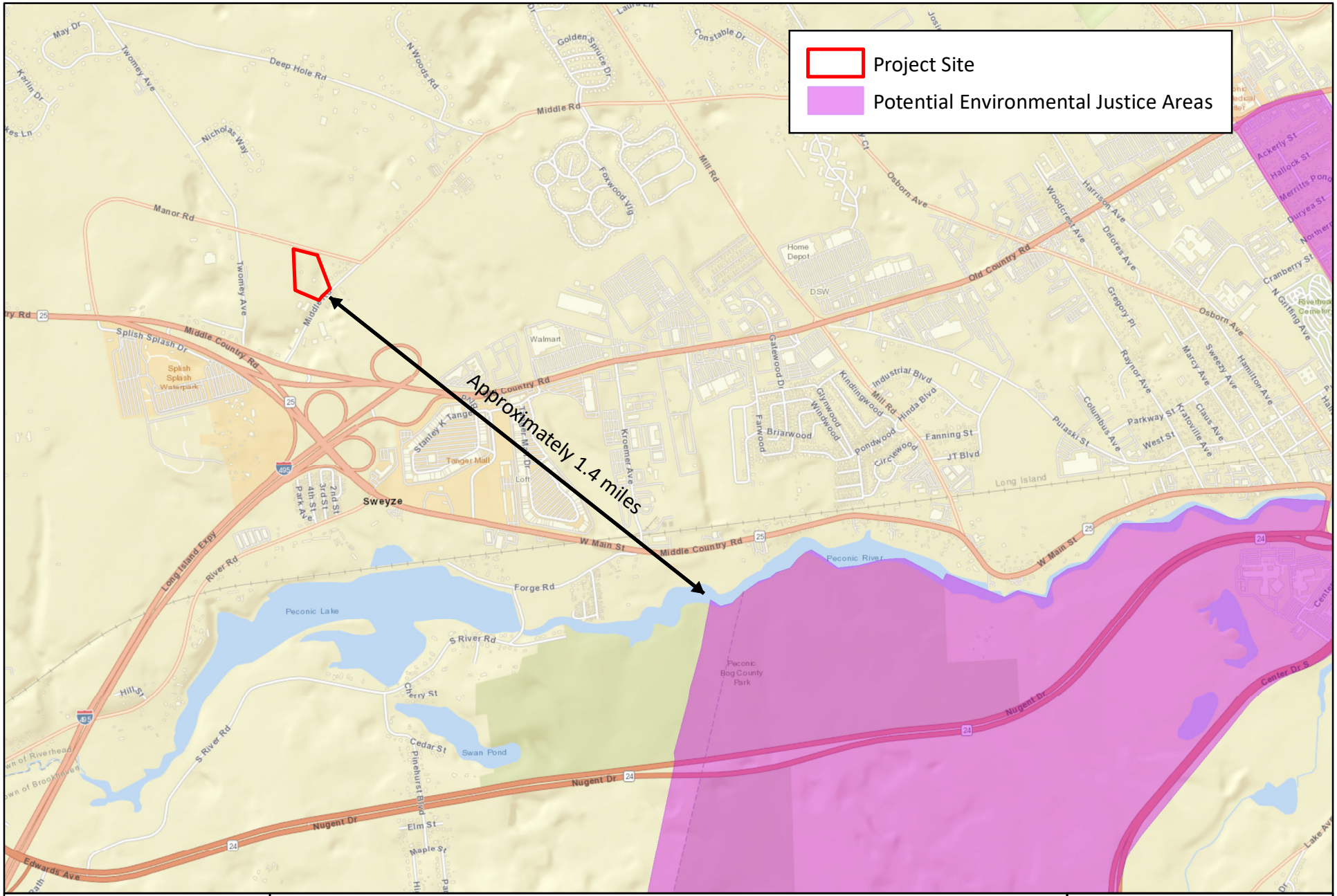
NPV

FIGURE 1-5
USES ON ADJACENT AND NEARBY SITES

Source: NYS Orthophotography, 2020
Scale: 1 inch = 500 feet

Breezy Hill Group VI, LLC
Calverton

Draft EIS



NPV

FIGURE 1-6
POTENTIAL ENVIRONMENTAL JUSTICE AREAS, NYSDEC

Source: ESRI WMS; NYSDEC Env. Justice data, 2020

Scale: 1 inch = 2,000 feet

N

Breezy Hill Group VI, LLC
Calverton

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NPV

FIGURE 2-1
TOPOGRAPHIC MAP

Source: NYS Orthophotography, 2016;
Topo calc from NOAA 2014 DEM, 1m
Scale: 1 inch = 100 feet

N

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Calverton

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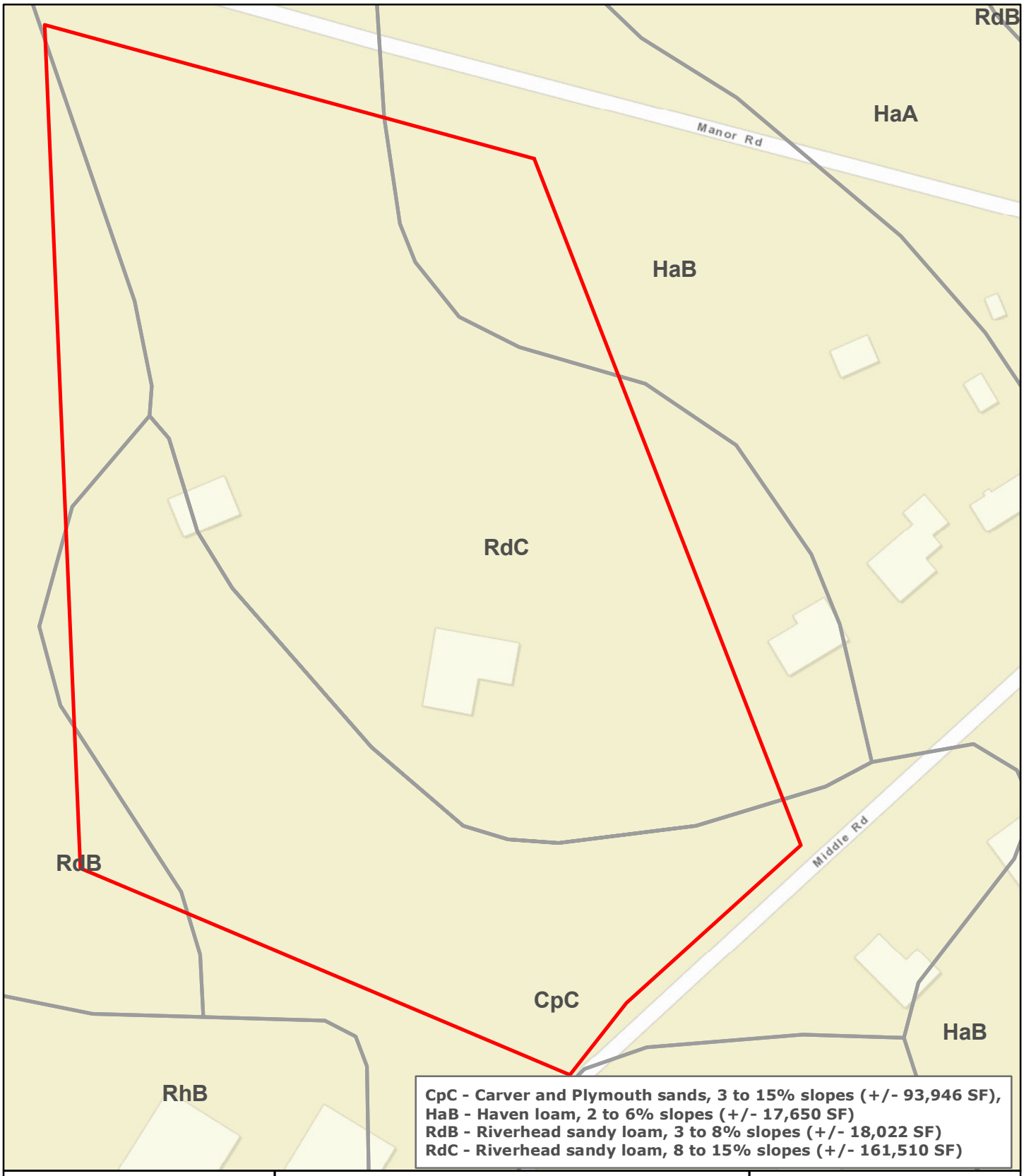


NPV

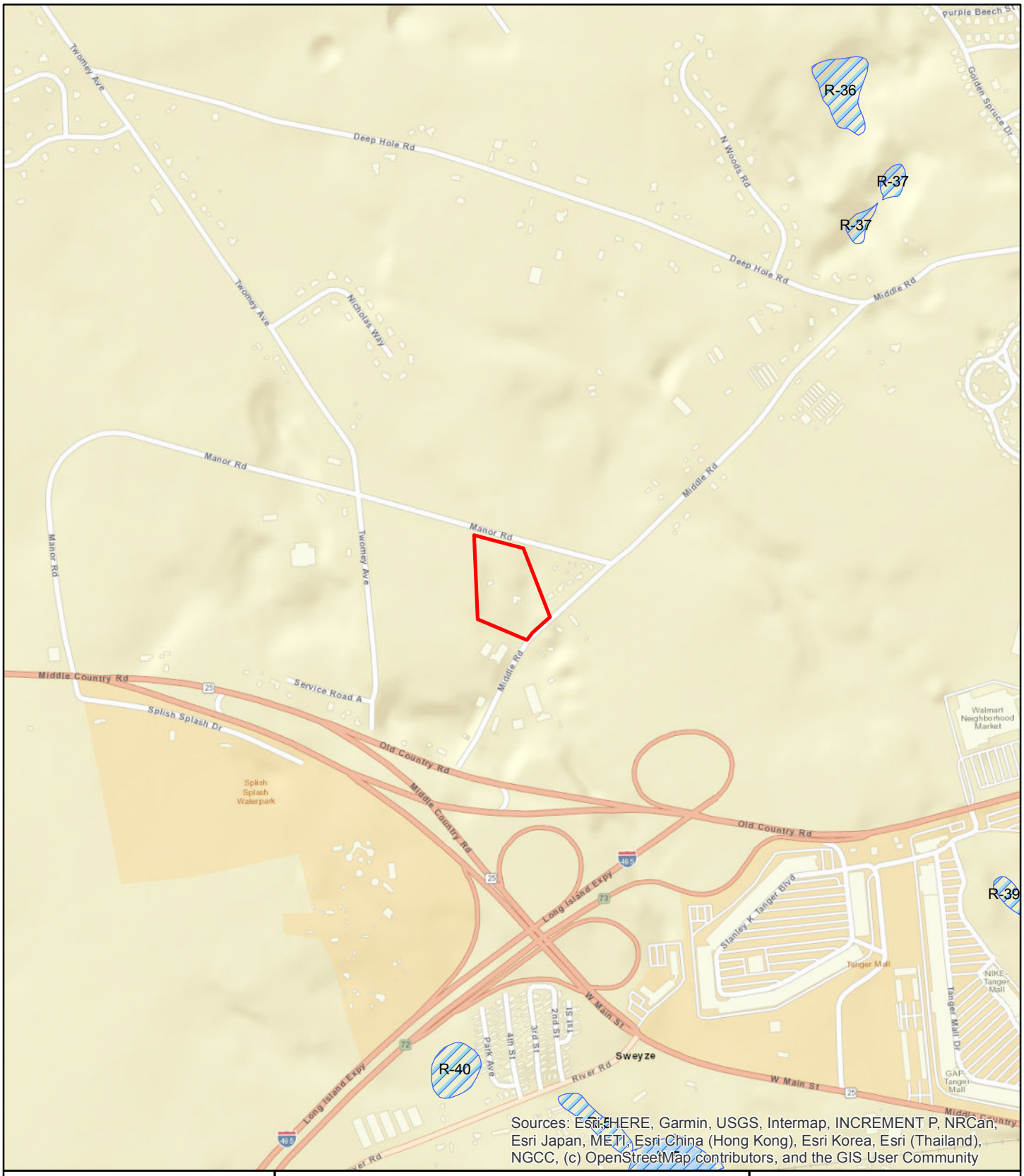
FIGURE 2-2
SOIL MAP

Source: ESRI Web Map Service; NRCS Soil data
Scale: 1 inch = 100 feet

N

Breezy Hill Group VI, LLC
Calverton

Draft EIS



NPV

FIGURE 2-3
WETLANDS MAP, NYSDEC

Source: ESRI Web Map Service; NYSDEC Freshwater wetlands data
Scale: 1 inch = 1,000 feet

N

Breezy Hill Group VI, LLC
Calverton

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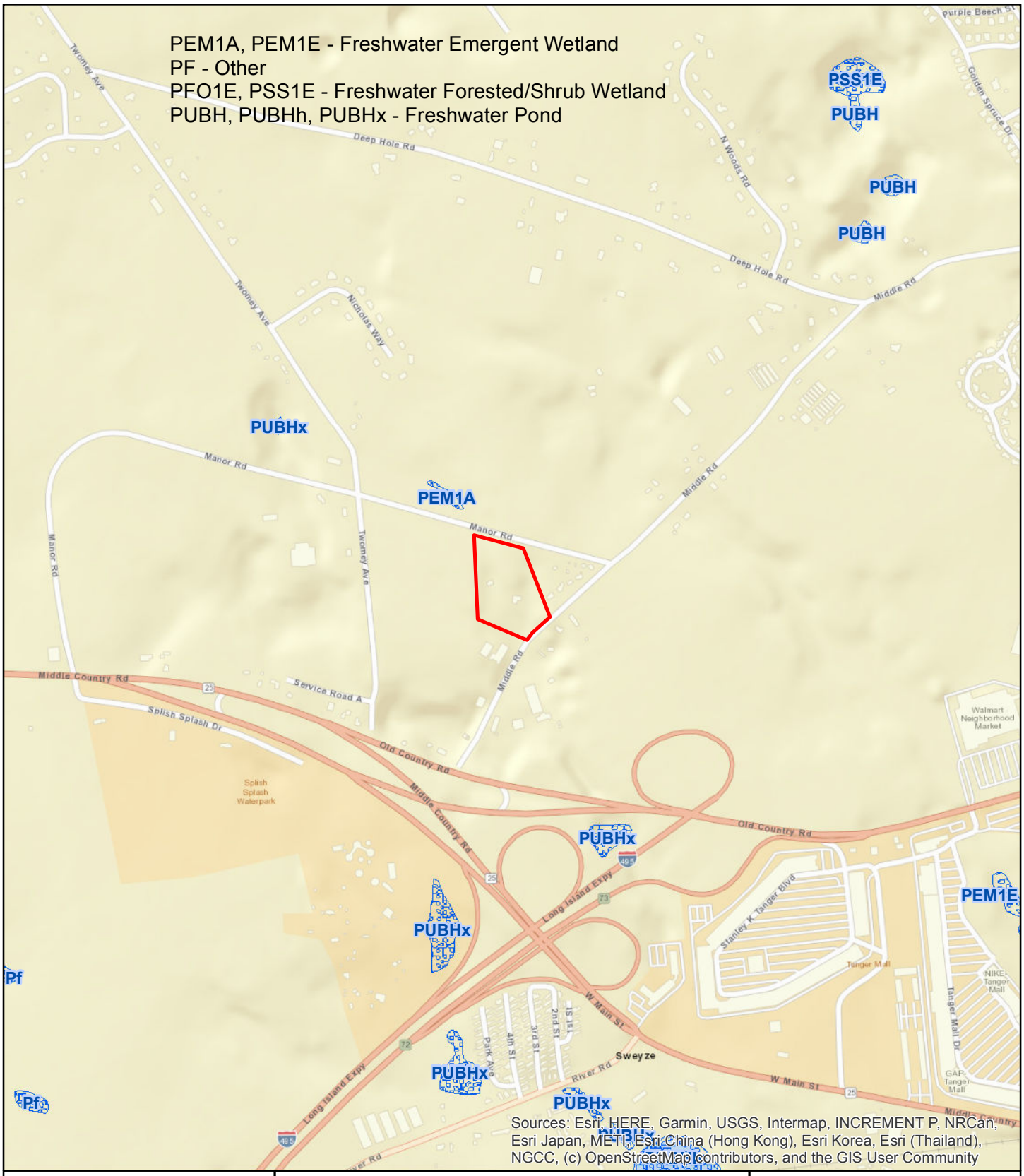

NPV

FIGURE 2-4
WETLANDS MAP, NWI

Source: ESRI Web Map Service; US F&W Wetlands data
Scale: 1 inch = 1,000 feet

N

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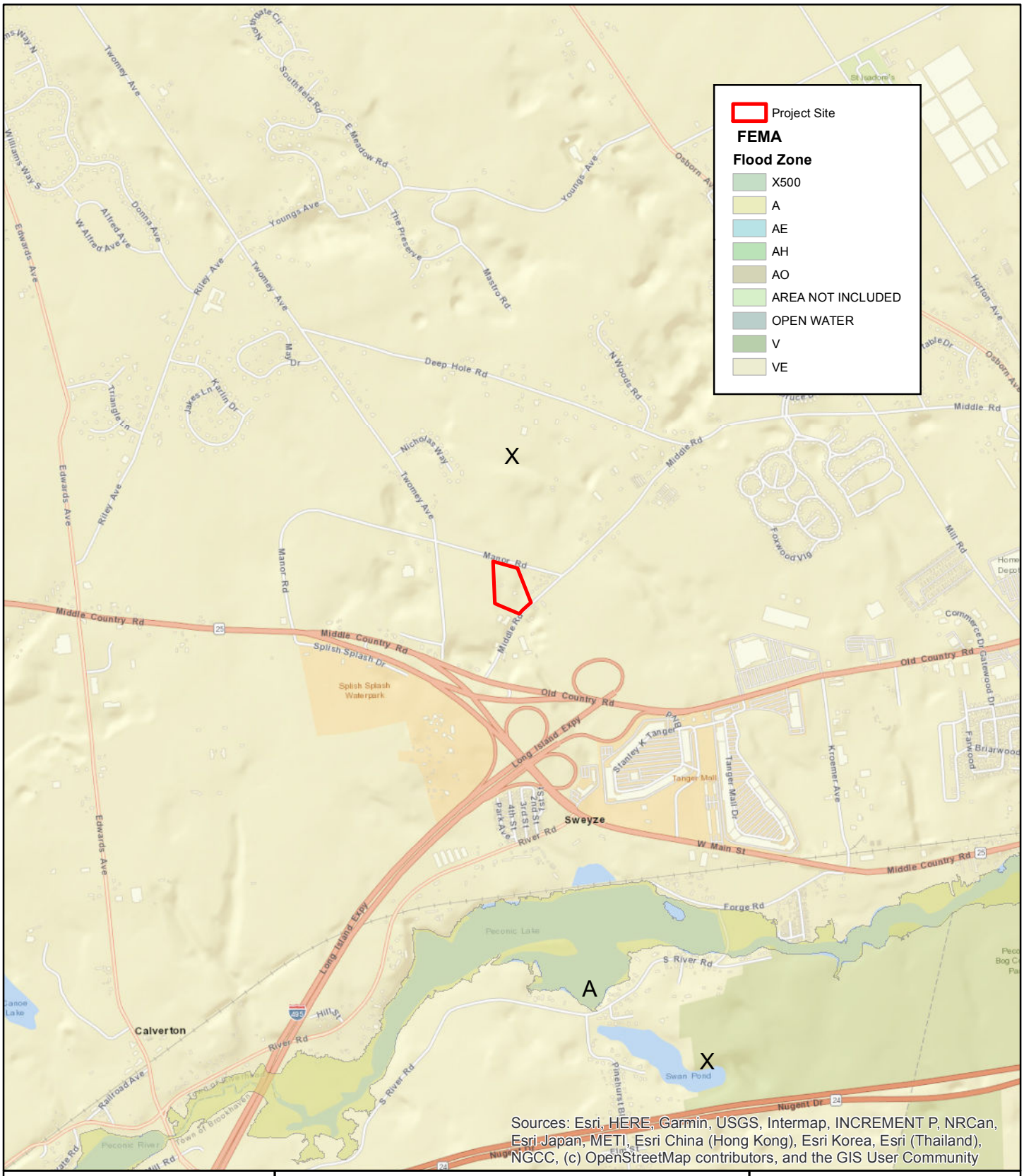
Calverton

Draft EIS



NPV

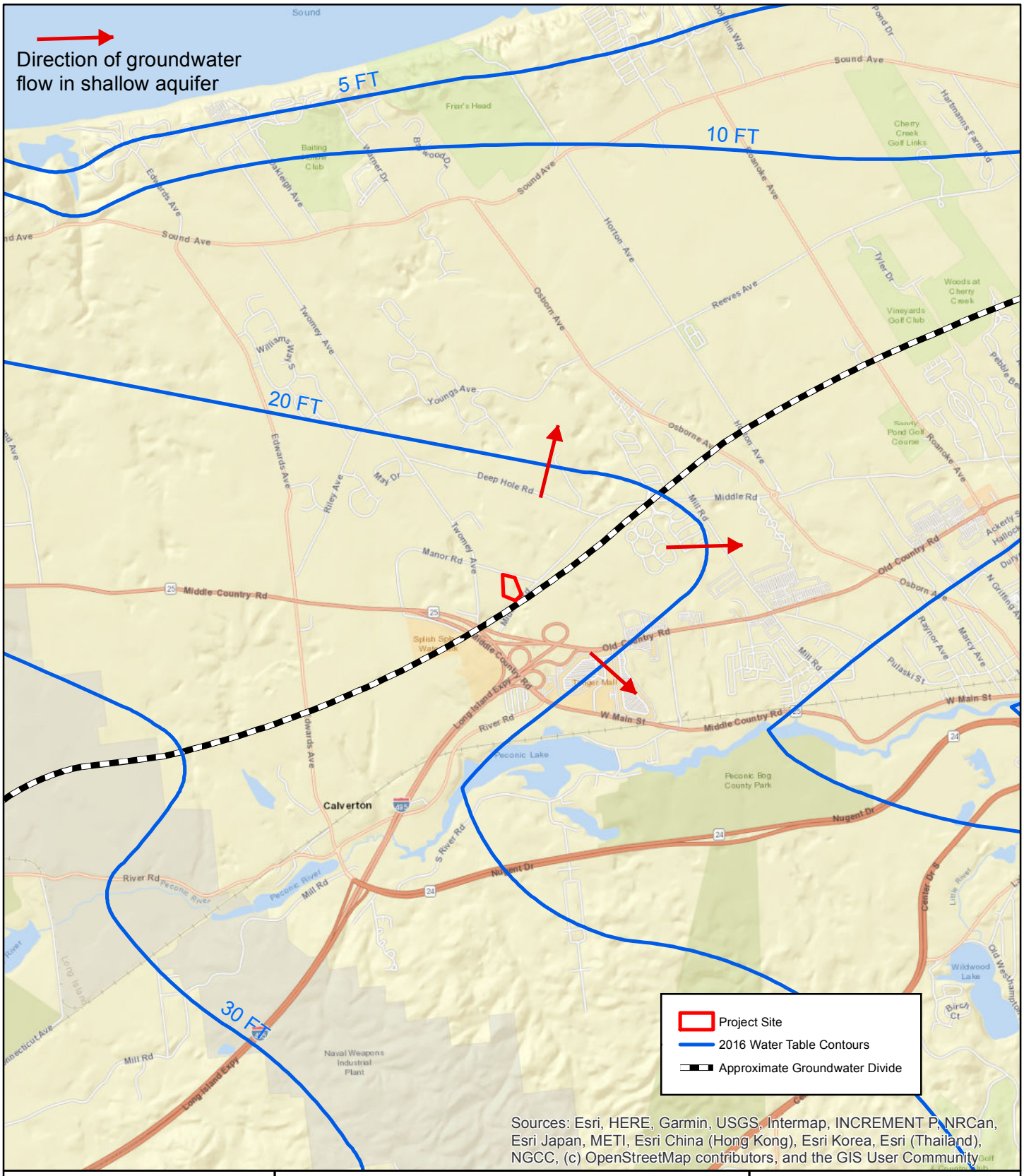
FIGURE 2-5
FLOOD HAZARD ZONE MAP, FEMA

Source: ESRI Web Map Service; FEMA, 2013
Scale: 1 inch = 2,000 feet

N

Breezy Hill Group VI, LLC
Calverton

Draft EIS



NPV

FIGURE 2-6
WATER TABLE CONTOUR MAP

Source: ESRI Web Map Service; USGS 2016 data, SIM 3398
Scale: 1 inch = 4,000 feet

N

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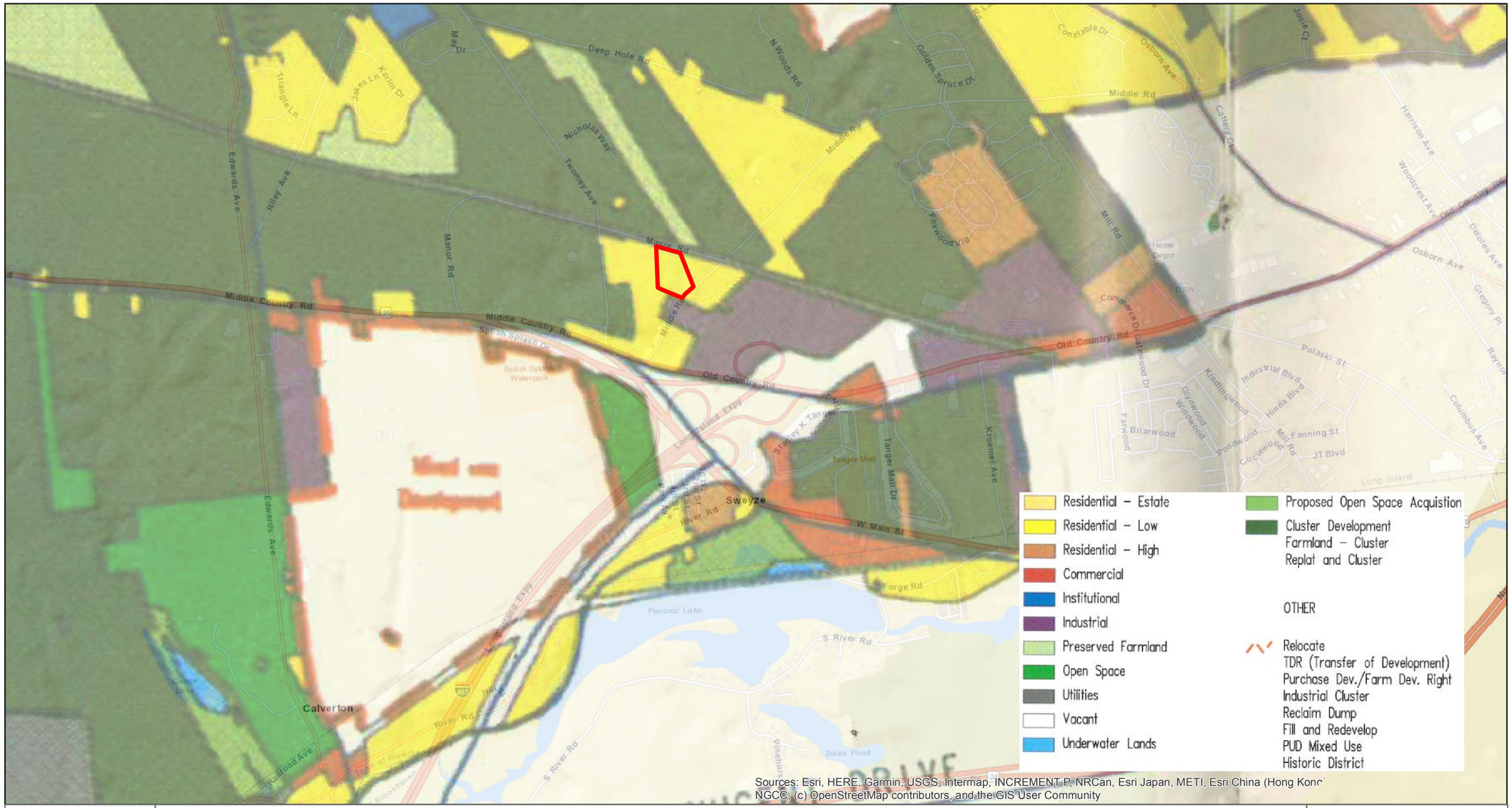
Calverton

Draft EIS



NPV

FIGURE 2-7 - RECOMMENDED LAND USE, SGPA PLAN

Source: ESRI Web Map Service; LIRPB, SGPA, figure 3-22 of 7/15/1991

Scale: 1 inch = 1,500 feet

N

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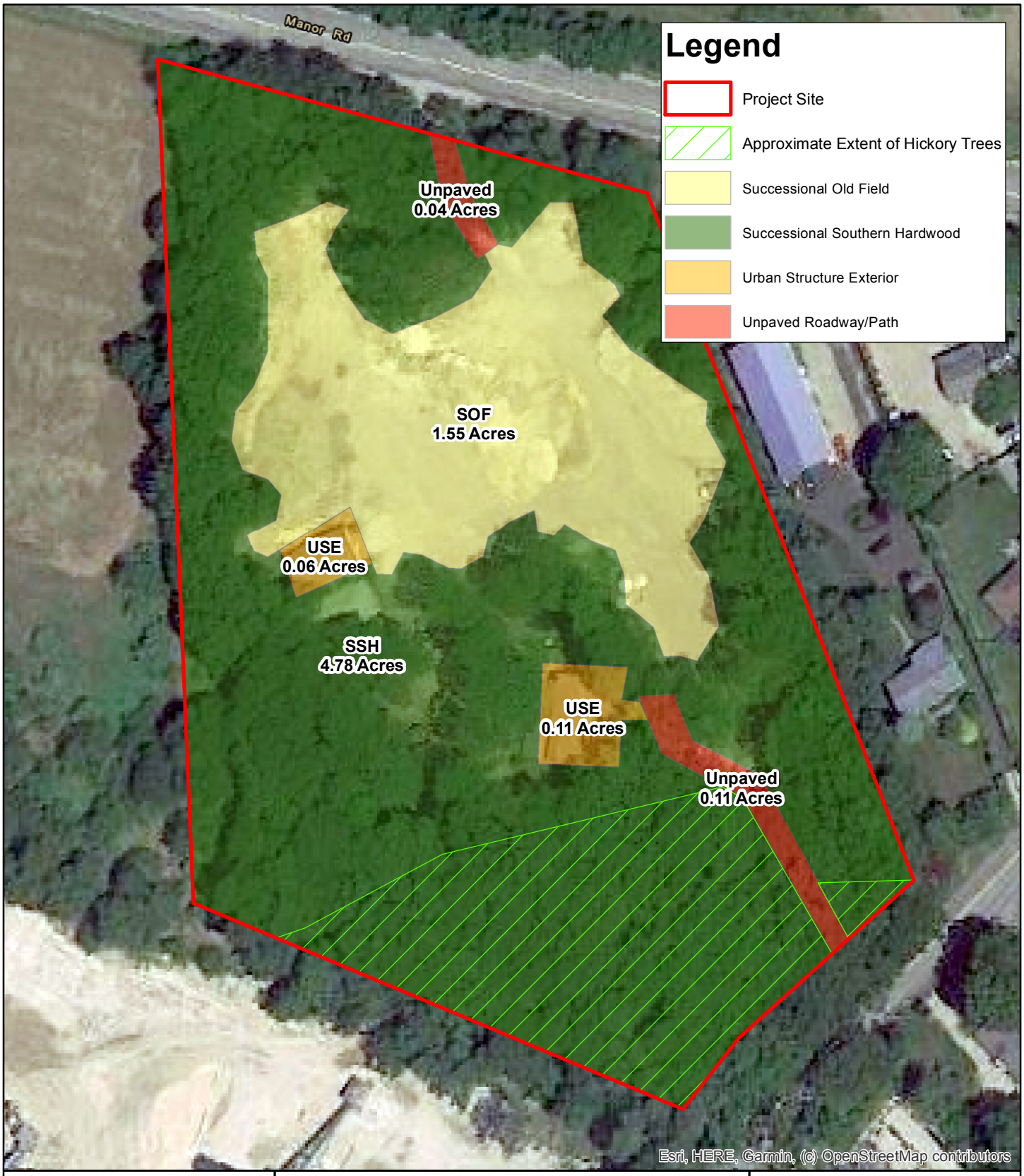

NPV

FIGURE 2-8
Habitat Map

Source: Google Earth Orthophotography, 6/2018

Scale: 1 inch = 100 feet

N

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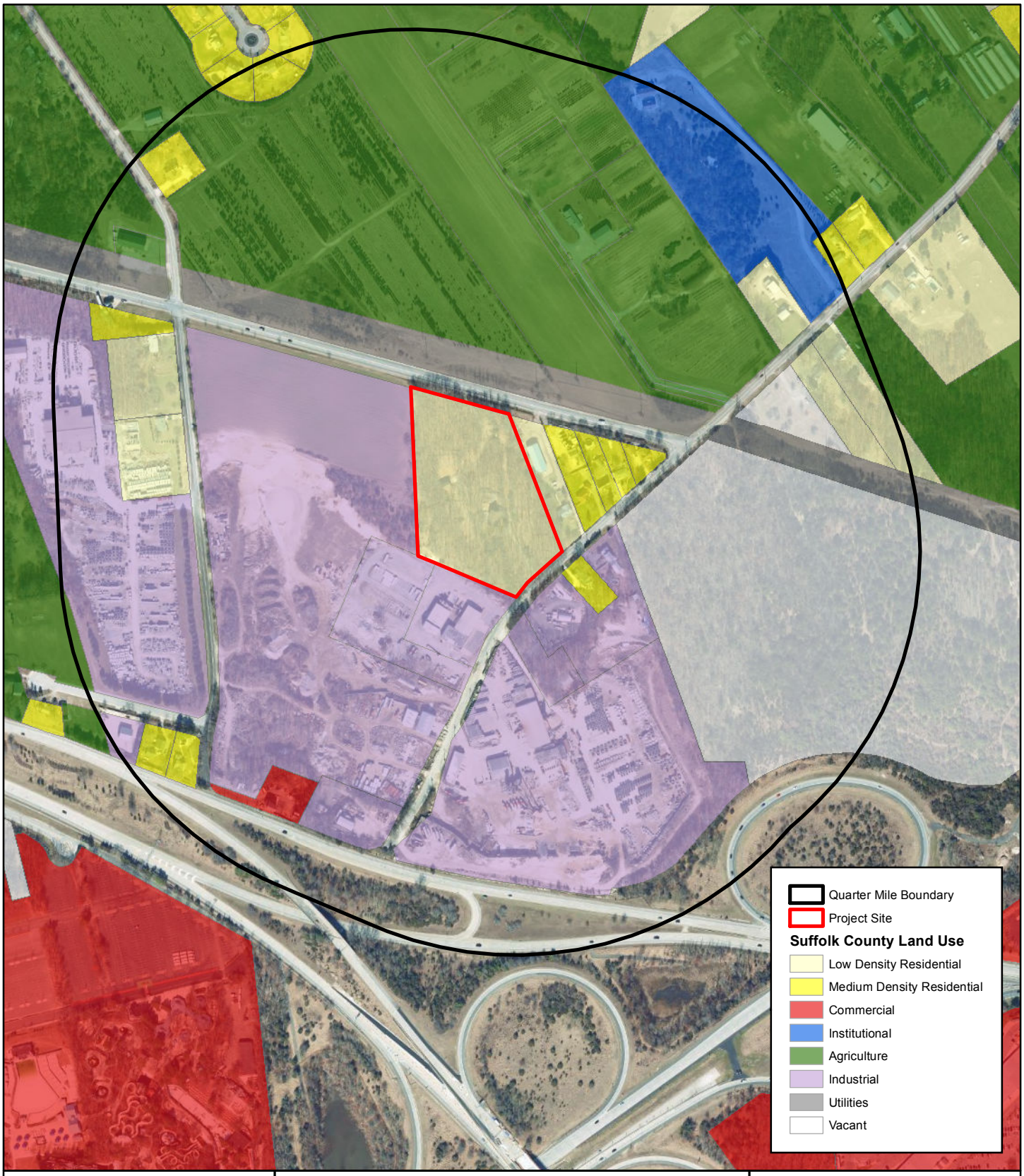
Calverton

Draft EIS



NPV

FIGURE 3-1
LAND USE MAP

Source: NYS Orthophotography, 2016
Suffolk County 2016 Land Use Data
Scale: 1 inch = 500 feet

N

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Calverton

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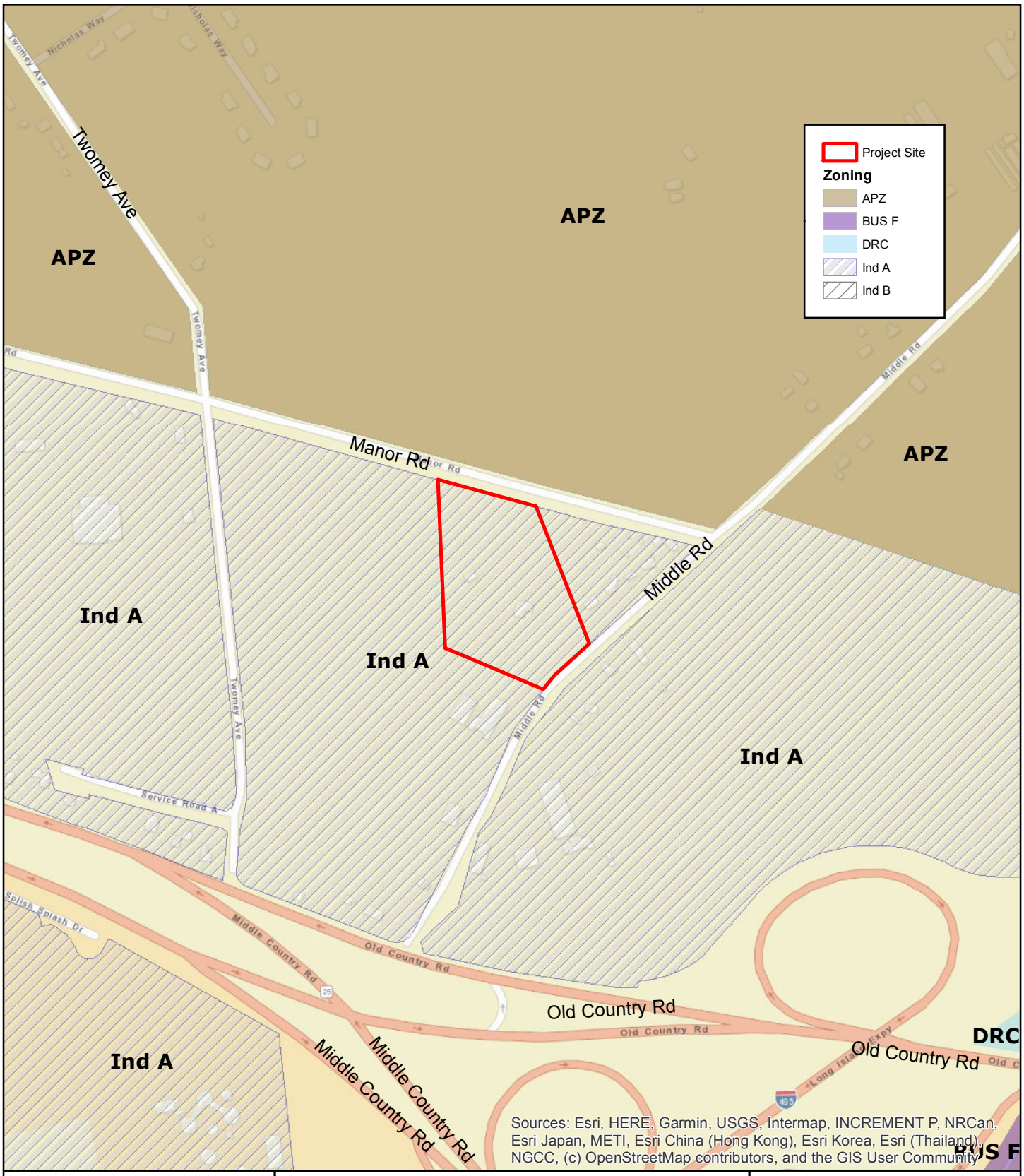

NPV

FIGURE 3-2
ZONING MAP

Source: ESRI Web Map Service; Suffolk County Water Supply data
Scale: 1 inch = 500 feet

N

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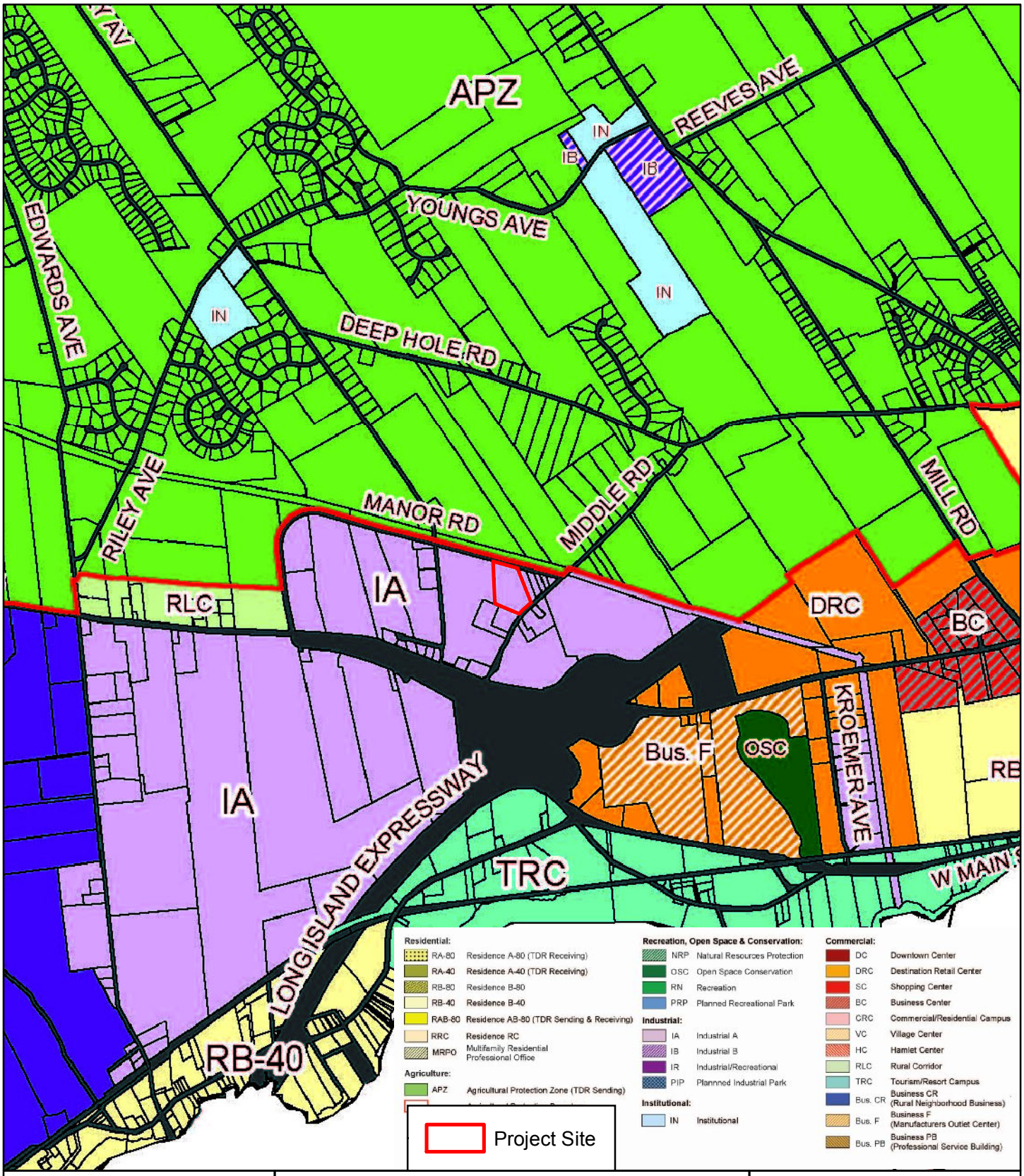
Calverton

Draft EIS



NPV

FIGURE 3-3
RECOMMENDED LAND USE, TOWN COMPREHENSIVE PLAN

Source: Town of Riverhead, Comp. LU Plan, 2003

Scale: 1 inch = 2,000 feet

N

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Calverton

Draft EIS

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FIGURE 3-4
COMMUNITY SERVICES MAP, SAFETY AND SECURITY SERVICES

Source: ESRI Web Map Service; Suffolk County Water Supply data
Scale: 1 inch = 4,000 feet

N

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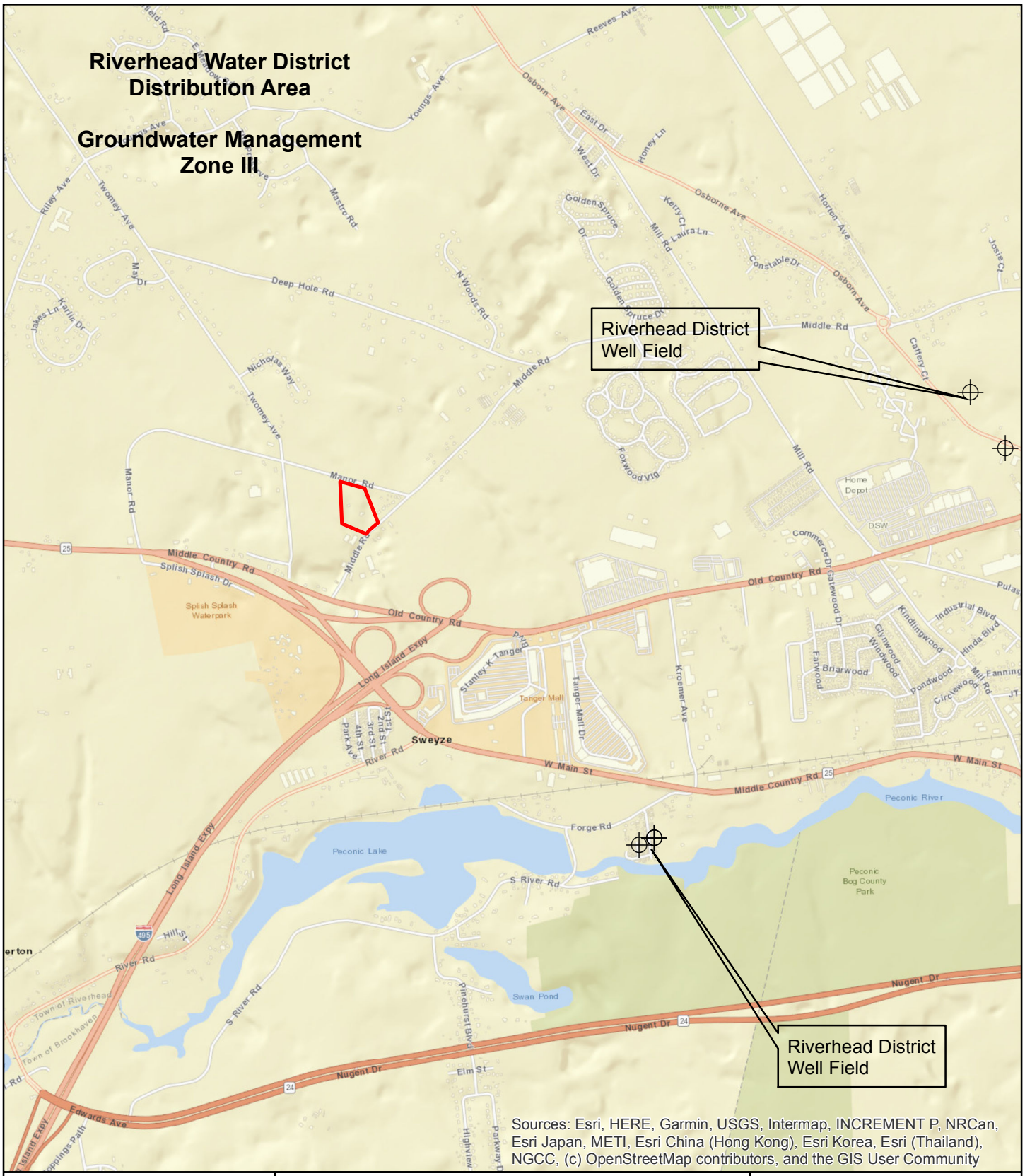

NPV

FIGURE 3-5
COMMUNITY SERVICES MAP, PUBLIC WATER SUPPLY

Source: ESRI Web Map Service; Suffolk County Water Supply data
Scale: 1 inch = 2,000 feet

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Breezy Hill Group VI, LLC
Calverton

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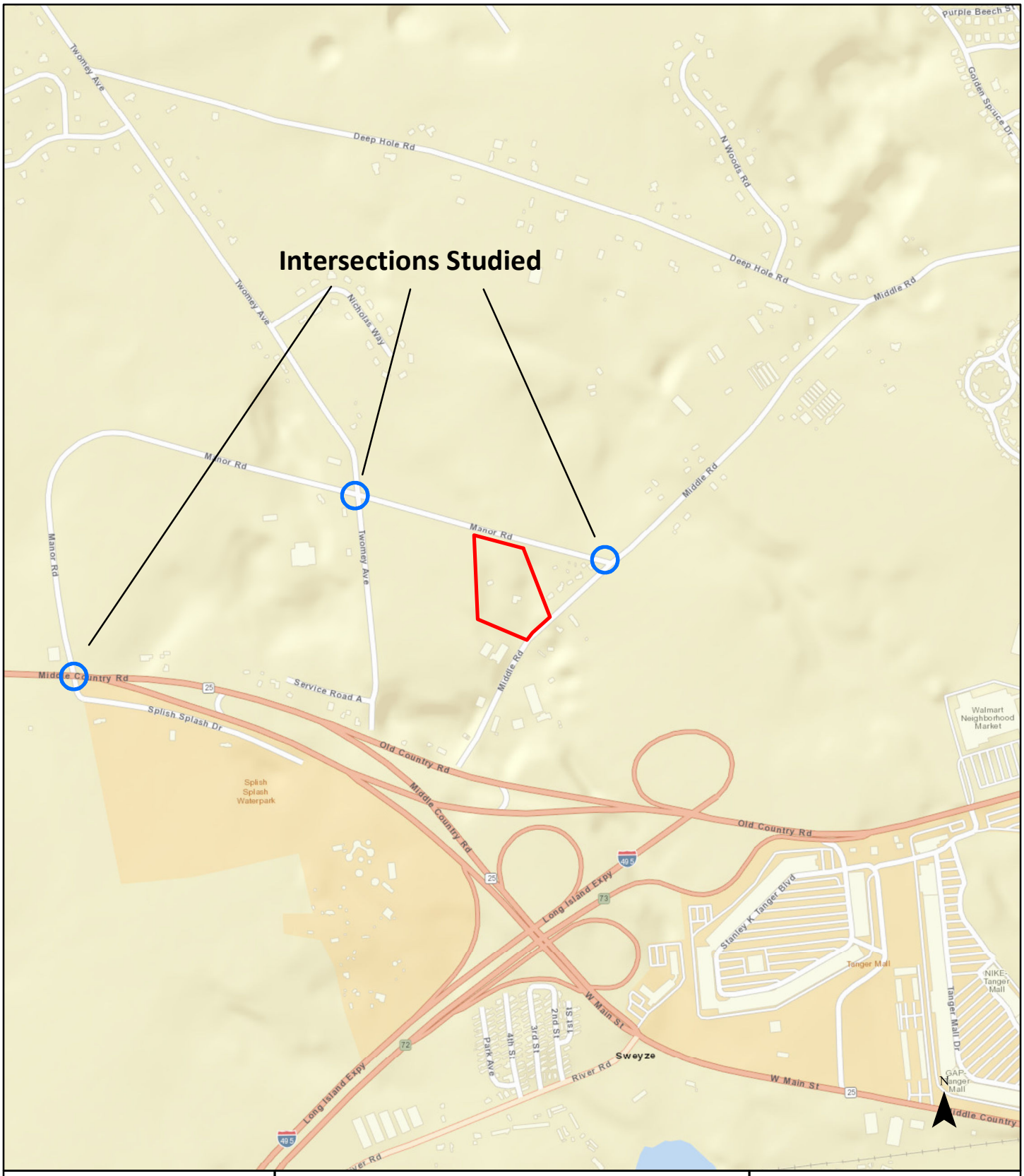


NPV

FIGURE 3-6
INTERSECTIONS STUDIED, TIS

Source: ESRI WMS
Scale: 1 inch = 1,000 feet

Breezy Hill Group VI, LLC
Calverton

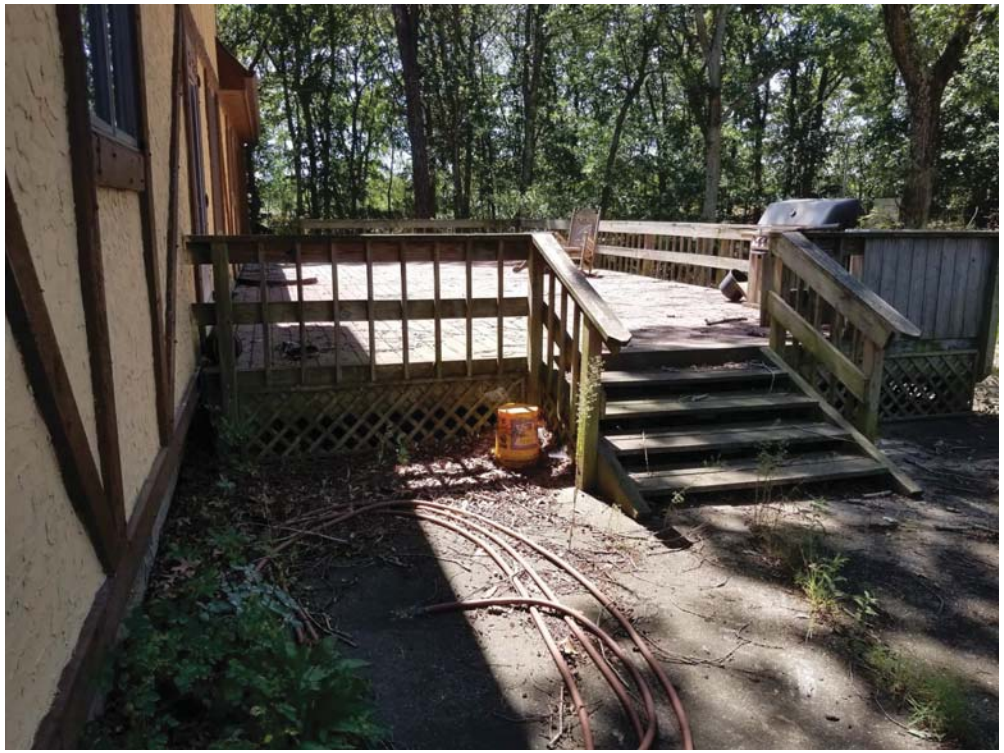
Draft EIS

APPENDICES

APPENDIX A
MISCELLANEOUS MATERIALS

APPENDIX A-1
SITE PHOTOGRAPHS

Nelson Pope Voorhis
Taken August 30, 2019



APPENDIX A-2
DRAFT LOCAL SOLID WASTE MANAGEMENT PLAN UPDATE 2020 - 2029

Engineering Department, Town of Riverhead
March 15, 2021

TOWN OF RIVERHEAD

DRAFT LOCAL SOLID WASTE MANAGEMENT PLAN

(6 NYCRR Section 360-15.11)

UPDATE 2020 – 2029

Prepared By:

ENGINEERING DEPARTMENT
TOWN OF RIVERHEAD
1295 Pulaski Street
Riverhead, NY 11901

Drew Dillingham, PE
Sanitation Department Superintendent

March 15, 2021

TABLE OF CONTENTS

CHAPTER 1 - PLANNING UNIT DESCRIPTION

1.1 Size and Geographic Location

The planning unit consists of the Town of Riverhead (the Town) including all hamlets and other communities within the Town boundaries. Covering approximately 201.27 square miles, the Town of Riverhead is located on the eastern end of Long Island, bounded by the Long Island Sound to the north, Southampton Town to the south, the Peconic Bay and Southold Town to the east, and the Town of Brookhaven to the west. 3

1.2 Population Served

The US Census Bureau 2010 population for the Town is 33,506 people. This a 21% increase since the 2000 Census. The majority of the residents (86.1%) are white and non-Hispanic. US Census Bureau 2010 figures on housing indicate 15,424 housing units available, of which 2,434 housing units are vacant. The remaining 12,990 occupied housing units are split – 77.5% owner occupied and 22.5% renter-occupied. A comparison of US Census data from Census 1990, Census 2000, and Census 2010 shows that total population in the Town has increased significantly (45.6%). Total housing units for this same 20 year period have increased 42.3% since 1990. Data suggests a steep increase in population.

1.3 Population Density Breakdown

Town population density breakdown is 19.99% rural, 80.01% suburban, and 0% urban. These statistics are taken from the default Town of Riverhead population data provided in the NYSDEC Population and Municipal Solid Waste Composition Calculator and is consistent with observed local demographics as reported by the Town of Riverhead Planning Department. This is the same calculator utilized in the estimates of weights and composition of wastes generated within the Town and projections of future waste characteristics.

1.4 Planning Unit Members

The planning unit consists of all municipal entities of the Town of Riverhead, including the unincorporated hamlets of Aquebogue, Baiting Hollow, Calverton, Jamesport, Laurel, Manorville, Northville, Riverhead and Wading River. The planning unit members are unchanged in the past ten years and are anticipated to remain unchanged in the next 10 years of the planning period for this Draft Local Solid Waste Management Plan (DLSWMP).

https://en.wikipedia.org/wiki/Riverhead_(town),_New_York

1.5 Membership Changes Since Last Approved LSWMP

Planning unit membership is unchanged since 1990.

1.6 Municipalities in Planning Unit Not Participating in the LSWMP

All municipalities and entities within the Town are participating in the LSWMP. There are no exclusions within the planning unit.

1.7 List of Neighboring Planning Units

Planning Units that are adjacent to the Town of Riverhead are: the Towns of Southampton, Brookhaven and Southold.

1.8 Effects of Tourism and Seasonal Variations of Population and Land Use

Information provided by the Town of Riverhead Chamber of Commerce indicates increased tourism activities over the past decade. In most recent years, tourism has been strongest among those taking day trips and short weekend trips, as the Town of Riverhead becomes a cost attractive, scenic vacation destination. Municipal solid waste (MSW) seasonal quantity variations are explained largely by tourist population increases in the summer. Short increases in waste and recyclables are experienced around the winter holiday season associated with increased consumer activities. Decreases in construction and demolition debris (C&D) are governed largely by weather, with winter measurably decreasing construction activities and the associated waste stream.

Waste quantities variations are additionally impacted by environmental regulations addressing waste water, solid waste, and open burning. Waste disposal rates tend to stabilize through the year, with the expected seasonal flux.

1.9 Influence of NYC Watershed

None of the Town of Riverhead's land mass is situated within the NYC watershed.

1.10 Significant Commercial Activities & Industries

The Town maintains a significant agricultural economy. Even with the steady decline of traditional row-crop farming in the region, agriculture has retained a strong foot hold with the help of diversification of agricultural and specialty farm products. Over 400 parcels of agricultural land occupy nearly 13,000 acres. Principal sources of cash farm income include wine and table grapes, vegetables, microbrewery products, and seafood. From honey, to fresh produce, hops, chicken, pork, lamb, goat milk and cheese, eggs, and jams are produced locally. Market opportunities both wholesale and direct retail through many farmers' markets, farm stores, fish markets, back road farm or seafood stands or restaurants offering true farm-to-table or local seafood dining.

Natural resource based industries are dominated by the support water bodies and waterways. The Long Island Sound, the Peconic River and the Peconic Estuary are resources that are used for fishing and recreational activities such as canoeing, kayaking, sailing, and swimming. Protection of surface waters from contaminated runoff is critical for the protection of both the fishing and tourism industries. Natural resource-based industries include: Splish Splash Water Park, Long Island Aquarium, several marinas and boat launch facilities, camp grounds, Buoy One Seafood Restaurant, PE & DD Seafood's Little Fish Shop, and Riverhead Indoor Farmer's Market.

Retail business supporting the agricultural community include Talmadge Farm Agway, Long Island Cauliflower Association, Chief Equipment, Inc., John Deere Landscapes and Malvese Equipment Co., Inc.

Specialty manufacturers produce beer and wine products within the Town. Companies include Moustache Brewery, North Fork Brewery, Long Ireland Brewery, Trade Winds Brewery, Jamesport Farm and Brewery, Palmers Vineyards, Jasons Vineyards, Martha Clara Vineyards, Jamesport Vineyards, Roanoke Vineyards, Paumanok Vineyards, Dilberto Winery and Sherwood House Vineyards.

Throughout the commercial and industrial sectors, support for rising economic vitality in the Town of Riverhead is enhanced by an employment sector comprised of governmental, educational, institutional, and not-for-profit organizations, including New York State Department of Transportation, Northwell Health, Suffolk County Supreme Court, Suffolk County Passport Office, Suffolk County Family Court, Suffolk County Soil and Water Conservation District, Natural Resources Conservation Service, Cornell University Agricultural Experiment Station, Cornell Cooperative Extension Service, Long Island Cauliflower Association and Suffolk County Community College Culinary Arts Institute.

1.11 Administrative and Financial Structure of the Planning Unit

Administration of solid waste services within the Town of Riverhead planning unit is provided by the Town of Riverhead Sanitation Department. The Sanitation Department provides expertise, regulatory review and compliance, and engineering support through the Engineering Department. Infrastructure directly providing solid waste services is based out of the European-American Waste Disposal Corp. facility at 1000 10th St, Ronkonkoma, NY. European American is owned and operated privately and has provided curbside pickup services to the Town since 2012. European American is contracted with the Town through 2022.

The solid waste program is divided into six residential Refuse Districts, A-F (see map next page), and Town facilities. Decisions and financial obligations relative to curbside pickup and Town facility pickup are the responsibility of the Town, which also provides support services for regulatory compliance.

Town residents not living in a private community have direct access to curbside pickup. Solid waste from Town facilities is picked up weekly by Town personnel and equipment and disposed of at Peconic Recycling and Transfer located at 560 Commerce Road, Cutchogue, NY. Commercial businesses are responsible for contracting with one of the Town's approved solid waste carters.

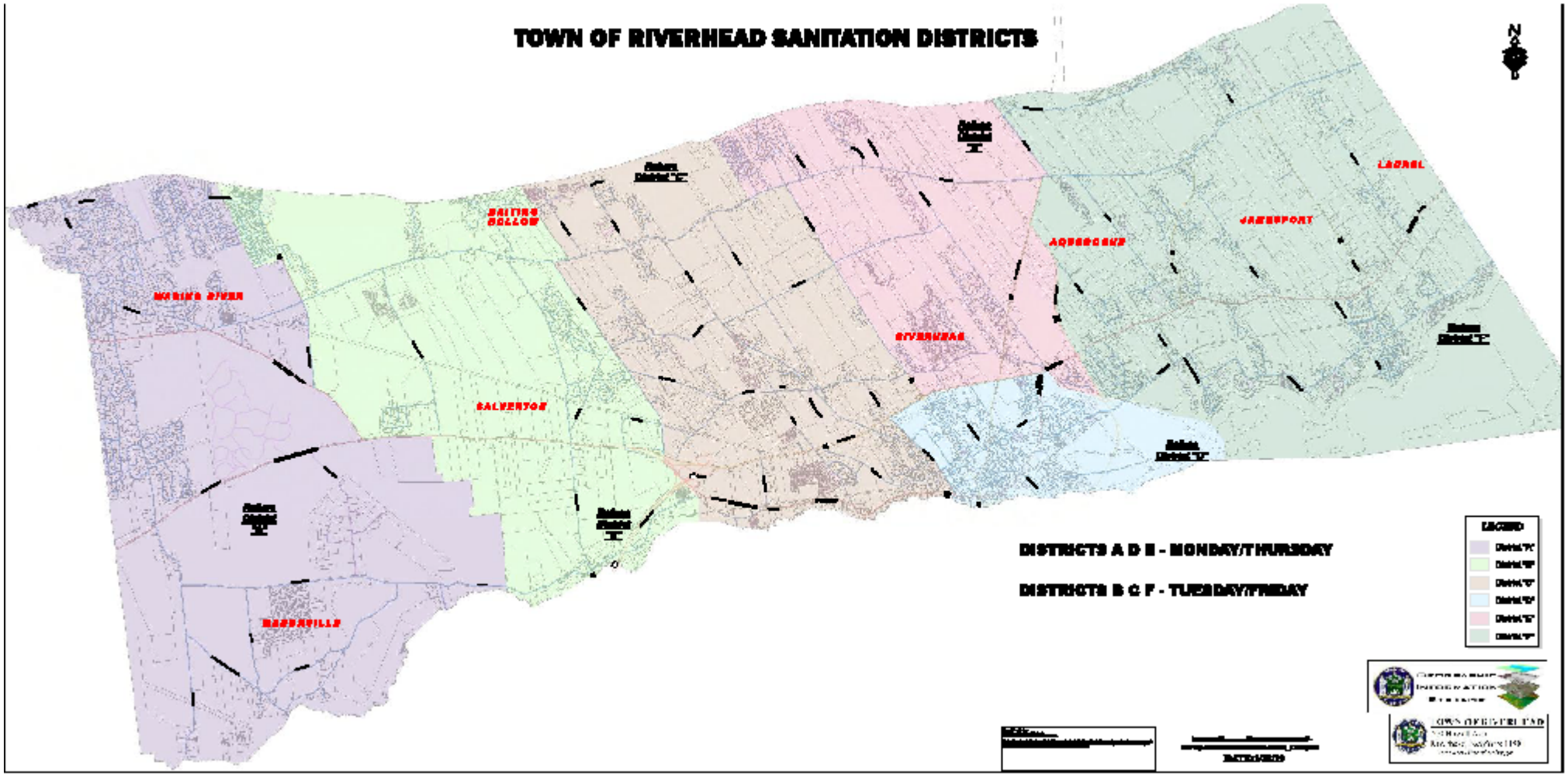
Financial support for residential curbside pickup and Town Sanitation services are provided through a dedicated Town Sanitation Tax. The money that is collected through the Riverhead School District and Town taxes are distributed to each of the entities on a pro-rata basis as each payment is received. The total tax collected for the year is then reconciled with Suffolk County. The County remits any shortages in amounts that were to be collected, which is again distributed to each of the entities on individual pro-rata basis. The program's freedom from excessive reliance of tipping fee revenues from a Town landfill or transfer station allows the Town to extend MSW disposal, yard waste, and recycling services with no tipping fees. The stability of a flat Sanitation Tax funding further supports long term services. Additional revenues are generated through grant funding.

The Town's solid waste program is not dependent on a minimum tonnage of wastes, and the associated tipping fees from those wastes. The Town continues to provide a broad array of solid waste services to the planning unit community based upon long term system performance rather than short term cash flow.

1.12 Solid Waste Management Practices that were Both Successfully and Unsuccessfully Implemented in the Previous LSWMP

The Town of Riverhead's last LSWMP that was approved by the New York Department of Environmental Conservation (NYSDEC) was dated 1990. The Town developed a DLSWMP in 2009 that was never approved by the NYSDEC.

Beginning in 2021, the Town Highway Department will discontinue loose leaf pickup. However, the quantity of bagged leaves from curbside pickup is expected to increase dramatically during 2021 and after because of the termination of loose leaf pickup by Highway. During 2020 the annual loose leaf pickup by Highway was deposited in the Town Yard Waste Facility. As a result of the deposition of loose leaves by Highway during 2020 and the expected increase in volume from bagged residential leaves picked up at the curb by the Towns contracted carter to the Yard Waste Facility the Town plans to register the facility in 2021. The registration will allow a throughput of 10,000 cubic yards annually. The Town has not changed any other solid waste management activities or practices during the past 10 years.


TOWN OF RIVERHEAD SANITATION DISTRICTS
N
LAUREL
JAMESPORT
AQUEBOGUE
RIVERHEAD
SOUTHOLD
MIDDLE ISLAND
CALVERTON
RIDGEFIELD
DISTRICTS A D E - MONDAY/THURSDAY
DISTRICTS B C F - TUESDAY/FRIDAY

CHAPTER 2 - WASTE GENERATION & MATERIALS RECOVERY DATA AND PROJECTIONS

2.1 MSW Projections

Ten (10) year projections of MSW tonnages have been estimated using the NYSDEC waste calculator for MSW. Historic solid waste tonnages in the Town of Riverhead suggest a baseline per capita waste generation rate of 5.15 lbs/capita/day which is greater than the USEPA reported national values of 4.44 lbs/capita/day and equal to the NYSDEC default value of 5.15 lbs/capita/day. The baseline generation rate is based on 2019 population projections and MSW generation rates from Step 3 in Appendix A, MSW Waste Projection Tables. Final projection estimates include tonnages and material composition and are described further in Chapter 7. Identified sources and generators of MSW are described in further detail as follows.

2.1.a Sources and Generators of MSW

2.1.a.1 Residents - Major Population Centers

The Town of Riverhead consists of nine unincorporated hamlets shown with corresponding populations as of the 2010 census: Aquebogue (pop. 2,438); Baiting Hollow (pop. 1,642); Calverton (pop. 6,519, a small portion in the Town of Brookhaven); Jamesport (pop. 1,710); Laurel (pop. 1,294, predominantly in the Town of Southold); Manorville (pop. 14,314, predominantly in the Town of Brookhaven); Northville (pop. 1,340); Riverhead (pop. 13,299); and Wading River (pop. 7,719, a small portion in the Town of Brookhaven).

2.1.a.2 Large Retailers/Commercial Centers

Each of the hamlets sustain small retail plazas and a combination of agriculture, retail, warehouse, and professional businesses.

2.1.a.3 Municipal Buildings

Federal, State, County and Town offices are located throughout the planning unit area and are consistent in their waste and recyclable volumes with other offices in the Town.

2.1.a.4 Institutions, School Districts & College

Riverhead Central School District has a student to teacher ratio of 16:1 (2018-19 Public School Review) compared to the state average of 14:1 (2018-19 Public School Review). The graduation rate for Riverhead High School from 2017-2018 was 80% (data.nysed.gov) compared to 81% for New York State (data.nysed.gov). Total student body among all school districts for all grades is 5,488 students (2017-18 data.nysed.gov).

Riverhead Charter School and St. John Paul II Regional School are located in the Town providing education for grades K-8. The Charter School is a public school and St. John Paul II Regional School is a private school.

The Suffolk County Community College Culinary Arts center, located in downtown Riverhead, provides a two-year Associates Degree in culinary arts as well as other related programs. The arts center is affiliated with the Eastern Campus of Suffolk County Community College which is located south in the Town of Southampton. SUNY Empire State College also maintains a branch in downtown Riverhead.

2.1.a.5 State, County and Federal Parks and Public Spaces

State parks include:

Wildwood State Park comprises 767-acres that include a beach on Long Island Sound, a playground, picnic tables, hiking and biking, fishing, a campground with tent and trailer sites, cross-country skiing, recreation programs and a food concession.

Hallock State Park Preserve is a 225-acre park and nature preserve containing woodlands, open areas and a rare coastal perched pond, in addition to a one-mile-long beach trail along Long Island Sound. It is intended to serve as a nature preserve in addition to allowing passive recreation such as hiking, fishing, non-motorized boating, and seasonal horse-riding and scuba diving. Development of the remainder of the preserve is in the planning stages and may include formal trails, environmental education, and activities appropriate for a park preserve.

There are no federal parks in the Town of Riverhead.

Indian Island Park is a 275-acre county park which offers trailer and tent campsites plus picnic tables, grills and a playground. The park also includes bird watching, fishing, hiking and golfing.

The North Fork Preserve is a 300-acre Suffolk County Park located between Sound Shore Road and Sound Avenue in Riverhead that includes bird watching, hunting and hiking.

2.2 Construction & Demolition Debris Projections

Separate 10 year waste projections were not developed for C&D debris in the Town of Riverhead. Residential C&D is disposed with MSW at the Town of Brookhaven Landfill by curbside pickup through the Town contracted waste hauler. C&D collected by the Town Sanitation Department is disposed of at Crown Recycling, located at 865 Youngs Avenue in Calverton. All other non-residential C&D is handled and disposed of by the individual generator.

2.2.a Significant Construction and Development Activities

In the past ten years there has been significant development particularly adjacent to the County Route 58 corridor. Developments include Walmart, Lowes, Riverhead Charter School, four solar farms, Island Water Park, Hobby Town, Popeye's, several business parks and several walk in medical facilities. Upcoming construction includes Sonic, Riverhead Islamic Center, a couple of microbreweries and several additional business or medical parks.

2.3 Industrial Waste

The most difficult waste stream to quantify and project the movement and disposal of is industrial waste. This material has generation rates that are highly variable and driven by the merchant - customer relationship and customer demand. Additionally, the material is not handled through the Town of Riverhead Sanitation Department and is handled outside of Town boundaries for material that has alternate use value as an energy source, marketable commodity, or subject to corporate dictates. In the Town of Riverhead there are no sources of industrial waste that impact the Town's solid waste program. Only residential and Town-generated MSW and recyclables are managed by the Town. Non-industrial MSW and recyclables generated from industry is managed by privately-contracted carters.

2.4 Biosolids

All biosolids generated in the Town of Riverhead are sourced from Town waste water treatment plants (WWTPs). It is anticipated for the 10 year planning period for this DLSWMP that biosolids will continue to be received and managed at the WWTPs at levels that are comparable to current rates. All biosolids are currently disposed of off-site in Pennsylvania at a permitted facility. Construction and expansion at the Rivehead WWTP went through a substantial growth period following new New York State Department of Environmental Conservation (NYSDEC) regulations. All of the treatment plant upgrades and new construction facilities have been completed for the facility in Riverhead. A significant expansion is underway for the Calverton WWTP. Accordingly, the current volume of biosolids is believed to be stable for the 10 year planning period of this DLSWMP.

2.4.a Waste Water Treatment Plants

Municipal WWTPs currently service Riverhead and Calverton hamlets. All of the biosolids, and grit are hauled out of state for disposal. There is no land application of WWTP biosolids anywhere within the Town of Riverhead. Due to land use regulations and restrictions, biosolids generation is higher per capita than either state

or national values. It is fully anticipated that the volume of biosolids will remain relatively constant during the 10 year planning period.

2.5 10yr Past History - Performance of Existing Solid Waste Program

The Town of Riverhead regularly measures the quantity and types of wastes received and managed through the Town's Sanitation Department. Since the start of full operations at the Yard Waste Facility in 2003, the Town has managed to significantly reduce the quantity of material landfilled. As expressed on a per capita per day basis, combined wastes buried have steadily dropped from 8.2 lbs/capita/day in 2009 down to 5.23 lbs/capita/day in 2019.

TOWN OF RIVERHEAD PERFORMANCE RATES SOLID WASTE DISPOSAL (lb/ capita[1]/ day)		
Town of Riverhead Performance 2019 Actual	MSW Disposal Performance[2] NYSDEC "Beyond MSW Waste" 2019 actual	2.5
NYS Goals	MSW Disposal Goals NYSDEC "Beyond MSW Waste" Goals Year 2010	4.1
	MSW Disposal Goals NYSDEC "Beyond MSW Waste" Goals Year 2012	3.8
	MSW Disposal Goals NYSDEC "Beyond MSW Waste" Goals Year 2016	2.9
	MSW Disposal Goals NYSDEC "Beyond MSW Waste" Goals Year 2020	1.7
	MSW Disposal Goals NYSDEC "Beyond MSW Waste" Goals Year 2030	0.6
Notes:	[1] Population total 40,397 per Census 2010 for 2019. [2] Disposal rate calculated using all waste sources managed through Town of Riverhead solid waste program that are ultimately incinerated externally.	

NYSDEC "Beyond MSW Waste", December 2010. Defined MSW does not include separate construction and demolition debris, biosolids, or industrial waste. Rate calculated from MSW, MRF & compost residuals tonnages landfilled in 2016. To evaluate performance of the existing solid waste program, comparisons are made to historical values and projected NYS goals articulated in "Beyond Waste" (2010). As defined in "Beyond Waste" the Town of Riverhead is a suburban community with a population density of 500 persons per square mile. Additionally, as defined in "Beyond Waste", municipal solid waste (MSW) municipal solid waste includes materials generated by the residential, commercial and institutional sectors, and does not include construction and demolition debris, biosolids, or industrial waste.

The reduction in hauling material out of Town for landfilling is due in large part to the materials processed at the Yard Waste Facility, with additional reduction through expanded conventional recycling. The following six tables/pie charts below show the history of the past ten (10) years of the Town of Riverhead including municipal solid waste receipts for landfill disposal (1), diversions (3), and total waste composition (2), respectively.

Reflected in these tables and pie charts are the marketing and infrastructure changes that the Town's solid waste program has made to both transform the program from material disposal to material management, and to address changes in market opportunities. Most dramatically the program has shown a significant reduction in out of Town land burial with the full implementation of the Yard Waste program; continued implementation of the STOP program; and continued recycling efforts. The Yard Waste facility includes on-site leaf, grass and wood grinding with off-site disposal through marketing by Crown Recycling. The Town also supplies residents with mulch and woodchips free of charge.

Specific to the materials recovery efforts, the past 10 years has seen the continuation of the STOP program which includes household hazardous wastes and electronics.

While the past 10 year history can be described as successful, the Town has identified additional opportunities for increasing the effectiveness of the recycling program with off-site glass processing and reuse. Please refer to Appendix B for the Town of Riverhead 2020 Recycling Calendar and MSW Flyer. This calendar and flyer outlines the Town's recycling guidelines, collection schedule and holidays. The associated letter includes helpful recycling information further explaining curbside pickup for both refuse and recyclables.

2.5.a

Town of Riverhead Municipal Solid Waste Management
Types & Quantities of Solid Waste Receipts Managed for Incinerator Disposal
(2010 population = 33,506)

Town of Riverhead SWMC	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MSW INCINERATOR INPUTS - wet tons										
MSW to Off-Site Incinerator	26190.20	23109.00	24649.60	23879.30	23322.02	23257.79	23960.95	27287.40	26774.33	24356.21
TOTAL MSW Incinerator Tons	26190.20	23109.00	24649.60	23879.30	23,322.02	23,257.79	23,960.95	27,287.40	26,774.33	24,356.21
TOTAL MSW Incinerated (Pounds per Capita per Day)	4.28	3.73	3.98	3.81	3.67	3.61	3.67	4.13	4.00	3.59

Please note that the solid waste receipts for the years 2010-2013 were estimated as these records were misplaced during the Sanitation Department's move from Howell Avenue to Pulaski Street. The Town will continue to search for these records and will replace the current data with actual receipt information if the records are found.

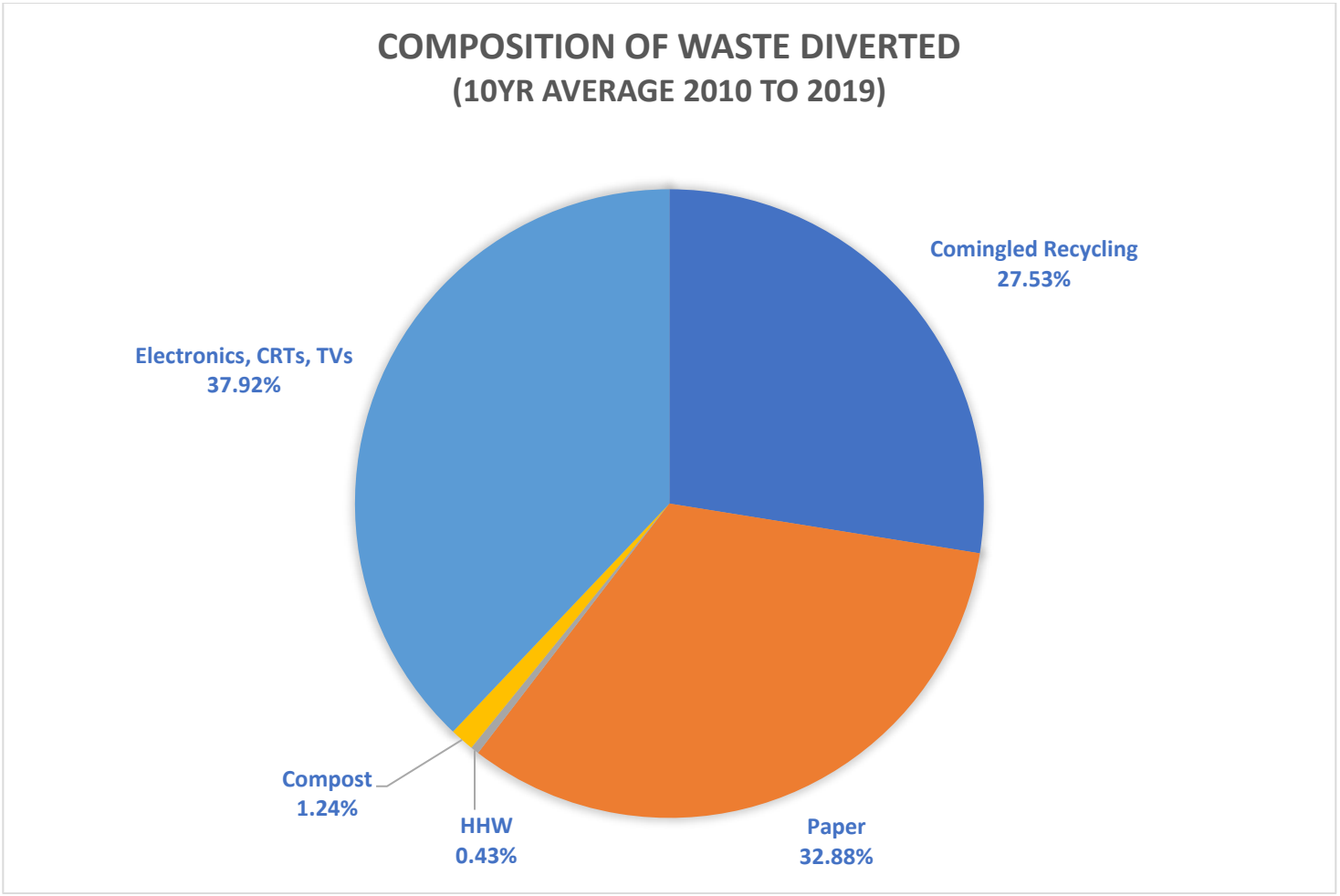
Because the MSW values derived from waste receipts for 2010-2013, the RSW values shown in the last table and pie chart will be replaced by values based on waste receipts should these documents be found.

2.5.b

Town of Riverhead Solid Waste Management
Types & Quantities of Materials Diverted from Off-Site Incinerator Disposal (scale records in tons)

Material / Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Comingled Recycling	1234.02	1087.66	1030.43	1046.07	1143.39	1060.69	2523.41	1020.29	1066.99	1057.58
Paper	1745.50	1420.43	1588.36	1656.59	1392.96	1440.05	1242.96	1374.11	1320.02	1475.28
Electronics, CRTs, TVs	3.08	4.84	10.35	4.41	6.66	19.36	29.84	33.31	38.79	41.10
HHW	45.73	49.82	65.04	58.24	42.35	58.00	57.50	52.83	62.34	60.35
Compost	501.74	747.85	519.95	2079.81	1039.91	2339.79	2599.76	2911.73	2599.76	1559.86
SUB-TOTAL	3530.07	3310.61	3214.13	4845.11	3625.26	4917.88	6453.47	5392.28	5087.90	4194.16
MSW to Compost & Recycling (Pounds/Capita/Day)	0.58	0.53	0.51	0.76	0.56	0.75	0.98	0.81	0.75	0.61

2.5.c


COMPOSITION OF WASTE DIVERTED
(10YR AVERAGE 2010 TO 2019)
Comingled Recycling
27.53%
Electronics, CRTs, TVs
37.92%
Compost
1.24%
HHW
0.43%
Paper
32.88%

CHAPTER 3 - EXISTING SOLID WASTE MANAGEMENT SYSTEM

3.1 Current Inventory Description

The Town of Riverhead solid waste infrastructure and facilities are a combination of public and private ownership. The Town solid waste program control is focused primarily on curbside solid waste collection with solid waste disposal from Town facilities by the Town Sanitation Department. The collection system is controlled by the Town and preclude hamlets and other communities from implementing and enforcing their own solid waste regulations at the local level by local laws, land use standards, zoning, sub-division regulation, site plan review, or code enforcement.

Infrastructure in the form of landfill operation, recycling facilities and transfer services are not present in the Town. The Town's solid waste collection is performed by a private hauler. In addition, the Town operates a compost facility on Young's Avenue in Riverhead to address yard waste from Highway Department operations.

3.2 Town of Riverhead Sanitation Infrastructure

Infrastructure components consist of a closed municipal solid waste (MSW) landfill, yard waste facility, composting facility and transportation.

3.3 Residential Solid Waste Collection Excluded from the Collection District

Residential Condominiums, private community townhouse developments, cooperatives and trailer parks are excluded from the Town's Solid Waste District. These developments are served separately by local private commercials carters. This excluded waste represents approximately 20% of all residential solid waste collected in the Town.

3.4 Non-Residential Solid Waste Collection

The Town's contracted private commercial carter does not collect non-residential (commercial, industrial and institutional) generated solid waste. All non-residential waste is collected and disposed of by the private commercial carters under contract to the individual establishment, land owner, lessee or tenant. Most commercial, industrial and institutional establishments within the Town use larger containers or dumpsters to store solid waste which are typically placed in the rear of the establishments. Private commercial carters collecting solid waste operate under the Town's permitting system and must be licensed to perform business inside the Town of Riverhead and currently do not report tonnages of solid waste collected. A copy of the Town's commercial private waste disposal license application is included in Appendix C.

The Town does not recommend any particular private commercial carter for servicing non-residential customers nor does it dictate business practices. There is a hauler licensing program currently in the planning unit. The Town requires annual licensing of all private haulers and self-deliveries. The licensing program requires the names of personnel working in the Town and detailed information on all sanitation equipment to be employed within the Town. Section 3.5 lists all private haulers conducting sanitation activities in the Town of Riverhead including cradle to grave tracking of waste.

3.5 Private Sector Solid Waste Facilities and Carters Permitted to Operate in the Town of Riverhead

Private solid waste carters are required to comply with solid waste local laws and are currently subject to permit by the Town solid waste program. Solid waste regulations at the Town level are established and enforced by local law, land use standards, zoning, sub-division regulation, site plan review, or code enforcement. Vehicles transporting regulated waste, including tires and HHW, must be permitted annually per 6 NYCRR Part 364.

The Town has only one licensed private solid waste management facility which is Crown Recycling, located

at 865 Youngs Avenue in Calverton, NY. The Crown Recycling facility is located on 2.5 acres and has a capacity of 825 tons/day of construction debris and 375 tons/day of solid waste. The following is a list of other known private-sector solid waste carters in the Town:

3.5.1 Generation to Disposal Information For Private Carters

3.5.a. Peconic Recycling and Transfer Corp., 560 Commerce Road Mattituck NY 11935

i. Carter Transfer Station - 810 Commerce Road Mattituck NY 11935
   1. Transfer Station Capacity
      a. MSW – 400 tons/day
      b. C&D – 400 tons/day
   2. Processing of Materials at Transfer Station
      a. Recyclables pulled and separated by commodity
      b. Metals remain on Long Island and are sent to Disposal Facility
      c. Remaining Trash after separation process is sent to Disposal Facility

ii. Carter Metal Disposal Facility #1 - PK Metals, 3542 NY-112, Coram NY 11727
   1. Average intake = 165 tons/day

iii. Carter Metal Disposal Facility #2 - Gershow Recycling Corp., 71 Peconic Ave. Medford NY 11763
   1. Did not respond to inquiry, listed as ONLY Vehicle Dismantler Facility on DEC website: ftp://ftp.dec.state.ny.us/dshm/SWMF/Annual%20Reports_Solid%20Waste%20Management%20Facility/Annual%20Reports_by%20Activity%20Type/)

iv. MSW Disposal Facility #1 - Republic Services Carbon Limestone Landfill, 8100 S. State Rd Lowellville OH 44436
   1. Capacity – 11,000 tons/day

v. MSW Disposal Facility #2 – Waste Management – Charles City Landfill, 8000 Chambers Rd. Charles City VA 23030
   1. Capacity – 6,000 tons/day

3.5.b. Long Island Compost Corp., 100 Urban Avenue Westbury NY 11590

i. Carter Disposal Facility – 445 Horseblock Road Yaphank NY 11980
   1. This facility processes all materials taken in on site
      a. Yard Waste – 85,500 tons/year
      b. Wood Materials – 3,000 yd^3/day
      c. Organic Waste (Digester) – 215,000 tons/year

3.5.c. National Waste Services LLC., 1863 Harrison Avenue Bayshore NY 11706

i. Carter Transfer Station #1– Try Recycling, 135 South 2nd Street Bayshore NY 11706
   1. Transfer Station Capacity
      a. MSW – 750 yd^3/day

ii. Carter Transfer Station #2 – 45 Garfield Avenue Bayshore NY 11706
   1. Transfer Station Capacity
      a. C&D – 750 yd^3/day

iii. Carter Disposal Facility #1 – Huntington Recycling Center, 641 New York Ave Huntington NY 11743

1. Final Disposal Facility Capacity and Types of Materials (as provided)
    a. Hazmat Materials – 2-3 tons/day (Radiac)
    b. Electronics – 5 tons/day
    c. Plastics – 2 tons/day
    d. Cardboard – 1 ton/day
    e. Metals – 2 tons/day
    f. Grass – 2 tons/day
        - Power Crush Inc., 140 Old Northport Rd Kings Park NY 11754
    g. Commodity Recyclables
        - OMNI Recycling, 7 Portland Avenue Westbury, NY 11590
    h. Light Bulbs
        - American Lamp Recycling, 55 Riverview Dr. Marlboro NY 12542

iv. Carter Disposal Facility #2 – Covanta Hempstead, 600 Merchants Concourse Westbury NY 11590

1. Daily Intake (2019 Average as per DEC Website)
    a. 2767 tons/day (received)
    b. 2747 tons/day (processed)

v. Carter Disposal Facility #3 – Town of Brookhaven Landfill, 350 Horseblock Road Brookhaven NY 11719

1. As per DEC website, 832,121.26 total tons solid waste was received in 2019.

3.5.d. Crown Sanitation, 865 Youngs Avenue Calverton NY 11933

i. Carter Transfer Station – Crown Sanitation, 865 Youngs Avenue Calverton NY 11933

1. Transfer Station Capacity
    a. MSW – 375 tons/day
    b. C&D - 825 tons/day

ii. C&D Disposal Facility #1 – Town of Brookhaven Landfill, 350 Horseblock Road Brookhaven NY 11719

1. As per DEC website, 832,121.26 total tons solid waste was received in 2019.

iii. C&D Disposal Facility #2 –110 Sand and Disposall, 136 Spagnoli Rd. Melville NY 11747

1. As per the Engineer Jim Deveson their permit allows 6,000 tons/day.

iv. MSW Disposal Facility #1 - Republic Services Carbon Limestone Landfill, 8100 S. State Rd Lowellville OH 44436

1. Capacity – 11,000 tons/day

v. MSW Disposal Facility #2 – Waste Management – Charles City Landfill, 8000 Chambers Rd. Charles City VA 23030

1. Capacity – 6,000 tons/day

3.5.e. Winters Bros. Waste Systems, 82 Old Dock Road Yaphank NY 11980

i. MSW Carter Transfer Station – 971 Waverly Avenue Holtsville NY 11742

1. Transfer Station Capacity

a. MSW – 850 tons/day

ii. C&D Carter Transfer Station – 82 Old Dock Road Yaphank NY 11980
1. Transfer Station Capacity
a. C&D – 780 tons/day

iii. Disposal Facility #1 – Town of Brookhaven Landfill, 350 Horseblock Road Brookhaven NY 11719
1. As per DEC website, 832,121.26 total tons solid waste was received in 2019.

iv. Disposal Facility #2 - Republic Services Carbon Limestone Landfill, 8100 S. State Rd Lowellville OH 44436
1. Capacity – 11,000 tons/day

v. Disposal Facility #3 - Republic Services Brunswick Landfill, 107 Mallard Crossing Road Lawrenceville VA 23868
1. No capacity, Refused to disclose daily intake over the phone (434) 848-9277

vi. Disposal Facility #4 – Waste Management Alliance Landfill, 398 South Keyser Avenue Taylor PA 18517
1. Daily Maximum – 5,000 tons/day
2. Daily Average Approx. – 2,000 tons/day
3. Facility Remaining Capacity – 24 Million Tons

vii. Disposal Facility #5 - Republic Services Conestoga Landfill, 420 Quarry Road Morgantown PA 19543
1. Rough Daily Intake – 5,000 tons/day
2. Permit Allows – 10,000 tons/day

3.5.f. Maggio Sanitation, 88 Old Dock Road Yaphank NY 11980

i. Carter Transfer Station – 88 Old Dock Road Yaphank NY 11980
1. Transfer Station Capacity
a. MSW – 86 tons/day
b. C&D – 60 tons/day
c. Cardboard – 18 tons/day

ii. Disposal Facility #1 – Town of Brookhaven Landfill, 350 Horseblock Road Brookhaven NY 11719
1. As per DEC website, 832,121.26 total tons solid waste was received in 2019.

iii. Disposal Facility #2 - Republic Services Carbon Limestone Landfill, 8100 S. State Rd Lowellville OH 44436
1. Capacity – 11,000 tons/day

iv. Disposal Facility #3 – Waste Management – Charles City Landfill, 8000 Chambers Rd. Charles City VA 23030
1. Capacity – 6,000 tons/day

v. Disposal Facility #4 – Peconic Recycling and Transfer Corp., 810 Commerce Road Mattituck NY 11935

1. For Details see "Peconic Recycling and Transfer Corp." as listed 1) above.

3.5.g. Jet Sanitation, 228 Blydenburg Road Islandia NY 11749

i. Carter Transfer Station – 228 Blydenburg Road Islandia NY 11749
   1. Transfer Station Capacity
      a. MSW – 13 tons/day
      b. C&D – 1 ton/day
      c. Corrugated Recyclables – 1 ton/day

ii. Carter Disposal Facility #1 – Huntington Recycling Center, 641 New York Ave Huntington NY 11743
   1. Final Disposal Facility Capacity and Types of Materials (as provided)
      a. Hazmat Materials – 2-3 tons/day (Radiac)
      b. Electronics – 5 tons/day
      c. Plastics – 2 tons/day
      d. Cardboard – 1 ton/day
      e. Metals – 2 tons/day
      f. Grass – 2 tons/day
         - Power Crush Inc., 140 Old Northport Rd Kings Park NY 11754
      g. Commodity Recyclables
         - OMNI Recycling, 7 Portland Avenue Westbury, NY 11590
      h. Light Bulbs

3.5.h. American Lamp Recycling, 55 Riverview Dr. Marlboro NY 12542

i. Carter Disposal Facility #2 – Covanta Babylon Inc., 125 Gleam Street West Babylon NY 11704

   1. Average Intake – 4,500 to 5,000 tons/week

ii. Disposal Facility #3 – Town of Brookhaven Landfill, 350 Horseblock Road Brookhaven NY 11719
   1. As per DEC website, 832,121.26 total tons solid waste was received in 2019.

iii. Disposal Facility #4 - Republic Services Carbon Limestone Landfill, 8100 S. State Rd Lowellville OH 44436
   1. Capacity – 11,000 tons/day

iv. Disposal Facility #5 – Waste Management – Charles City Landfill, 8000 Chambers Rd. Charles City VA 23030
   1. Capacity – 6,000 tons/day

3.5.i. Colucci Carting, 50 Miller Place-Yaphank Road Middle Island NY 11953

i. MSW Carter Transfer Station – 971 Waverly Avenue Holtsville NY 11742
   1. Transfer Station Capacity
      a. MSW – 850 tons/day

ii. C&D Carter Transfer Station – 82 Old Dock Road Yaphank NY 11980

1. Transfer Station Capacity
   a. C&D – 780 tons/day

iii. Disposal Facility #1 – Town of Brookhaven Landfill, 350 Horseblock Road Brookhaven NY 11719
   1. As per DEC website, 832,121.26 total tons solid waste was received in 2019.

iv. Disposal Facility #2 - Republic Services Carbon Limestone Landfill, 8100 S. State Rd Lowellville OH 44436
   1. Capacity – 11,000 tons/day

v. Disposal Facility #3 - Republic Services Brunswick Landfill, 107 Mallard Crossing Road Lawrenceville VA 23868
   1. No capacity, Refused to disclose daily intake over the phone (434) 848-9277

vi. Disposal Facility #4 – Waste Management Alliance Landfill, 398 South Keyser Avenue Taylor PA 18517
   1. Daily Maximum – 5,000 tons/day
   2. Daily Average Approx. – 2,000 tons/day
   3. Facility Remaining Capacity – 24 Million Tons

vi. Disposal Facility #5 - Republic Services Conestoga Landfill, 420 Quarry Road Morgantown PA 19543
   1. Rough Daily Intake – 5,000 tons/day
   2. Permit Allows – 10,000 tons/day

All waste carters operating within the Town must file quarterly reports identifying the types and quantities of solid waste and recyclable materials collected.

3.6 Town of Riverhead Collection Methods for C&D and Industrial Waste

Beginning in 1993 and through the present, residential C&D debris generated from minor repairs and renovations may be placed curbside with refuse/garbage for scheduled collection by the Town-contracted waste carter. Town generated C&D debris is disposed of at Peconic Recycling and Transfer by the Town Sanitation Department. Please see below for a detailed breakdown of cradle to grave processing of

3.7 Town of Riverhead Solid Waste Collection District

The Town has established itself as a Solid Waste Collection and Disposal District. The District consists of six Contract Bid Areas (CBAs). Solid waste (including recyclables, yard waste and white goods/bulky items) from the CBAs is collected by a private carter who is contracted with the Town to dispose of the waste at an external permitted facility. The Town's CBAs are identified as areas A through F as shown on the Contract Bid Area Map (next page). Currently, all six CBAs are serviced by European American for the collection and disposal of all residential solid waste except for those communities that are excluded from the Town District as described in Chapter 4. European American was awarded the Town bid for all six residential solid waste CBAs for a period of five years from January 1, 2018 through December 31, 2022 by Resolution #594 as shown in Appendix D. Table 3-1 depicts the CBAs and their associated solid waste management costs for each family unit for the 9 year period from 2012 through 2020 as bid by European American and other previous carters.

TABLE 3-1
TOWN OF RIVERHEAD LOCAL SOLID WASTE MANAGEMENT PLAN
TOWN CONTRACT BID AREAS AND ASSOCIATED SOLID WASTE MANAGEMENT
YEARLY COSTS FOR EACH FAMILY UNIT

District	A	B	C	D	E	F
2012	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT
2013	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT
2014	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT
2015	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT	239.64/UNIT
2016	242.52/UNIT	242.52/UNIT	242.52/UNIT	239.64/UNIT	242.52/UNIT	239.64/UNIT
2017	242.52/UNIT	242.52/UNIT	242.52/UNIT	239.64/UNIT	242.52/UNIT	239.64/UNIT
2018	248.76/UNIT	248.76/UNIT	248.76/UNIT	248.76/UNIT	248.76/UNIT	248.76/UNIT
2019	248.76/UNIT	248.76/UNIT	248.76/UNIT	248.76/UNIT	248.76/UNIT	248.76/UNIT
2020	248.76/UNIT	248.76/UNIT	248.76/UNIT	248.76/UNIT	248.76/UNIT	248.76/UNIT

Source: Town of Riverhead Adopted Resolutions #911, 2011 and #594, 2017

3.8 Town of Riverhead Solid Waste Collection District Collection Practices

3.8.a Residential MSW Collection

There are 12,990 reported households in the Town of Riverhead (2010 US Census). Approximately 80% (10,162) of these households are serviced by curbside recyclable collection through a Town-contracted private hauler. As previously noted, the remaining households are comprised of private communities. Town-collected residential waste comprises 46% of the total output from the Town, including C&D, commercial and industrial MSW.

Residents are allowed to put out up to four bags of regular garbage on the first day of pick up and then up to four bags of regular garbage and up to 6 bulk items on the second day for a total of 14 items per week. CBAs A, D and E have scheduled regular and bulk curbside pickup on Monday and Thursday of each week. CBAs B, C and F have scheduled regular and bulk curbside pickup on Tuesday and Friday of each week. In the event that a collection day falls on a holiday, or in the event of a weather condition which prevents collection, the service scheduled will not be provided. Solid waste collection schedules for each residential contract bid area along with disposal regulations are communicated to Town residents via an annual distribution of a brochure, which is also available on the Town's website.

3.8.b. Residential MSW Disposal

All residential solid waste collected by European American is delivered to the Town of Brookhaven MSW transfer station under the term of a three year contract. The transfer station is located at 350 Horseblock Road, Brookhaven, NY and has an annual capacity of 323,000 tons. At the Brookhaven Landfill, waste is consolidated into larger trucks and transported to Covanta Hempstead, located at 600 Merchants Concourse, Westbury, NY 11590. At Covanta Hempstead the refuse is incinerated and the energy is transformed into electricity. Covanta Hempstead is located on 15 Acres and began commercial operation in 1989. It is Long Island's largest Energy-from-Waste facility. The facility accepts delivery of waste 6 days a week and processes 24 hours a day. Steam created in the combustion process drives an 80-megawatt turbine generator, producing electricity for in-plant use and for sale to the local utility. Waste processing capacity is 1,700 tons per day. The ash by product is returned to the Brookhaven Landfill also at 350 Horseblock Road. Both Brookhaven and Covanta officials have been contacted and no plan is currently in place for ash disposal when the Town of

Brookhaven Ash Landfill closes in 2024.

3.8.c. Paper and Cardboard Recycling

Cardboard and paper are collected by the Town's contracted carter every other Wednesday and brought to Great Northern Fibers LLC., located at 77 Field St, West Babylon, NY 11704. At Great Northern Fibers the material is cleaned, baled and prepared for transport. The facility has a throughput capacity of 250 tons per day of paper and cardboard.

The material is then collected by a hauler commissioned by a buyer and brought to Port Elizabeth located at 201 Export St, Newark, NJ 07114 for shipment to China. Once in China the material is processed and converted to cellulose fibers and reused into making various types of new paper products.

3.8.d. Co-Mingled Recyclables

Co-mingled recyclables are collected curbside by European American every other Wednesday and delivered to Town of Islip's Material Recovery Facility (MRF), located at 1155 Lincoln Avenue, Holbrook, NY, 11741. Material is processed through the MRF and separated into glass, metal, aluminum, tin, residual recycling and non-recyclable MSW.

Glass is brought to the Town of Islip's Blydenburgh Rd Landfill located at 440 Blydenburgh Rd, Hauppauge, NY 11788 and used as ground cover.

Metal, Aluminum and Tin are brought to Suffolk Industrial Recovery Corp dba PK Metals and located at 3542 Route 112 Coram, NY 11727. The facility handles over 50,000 tons of scrap metal annually. When the material is prepared and baled, it is shipped to a downstream user depending on current pricing. The majority of the cans shipped from the facility are delivered to NH Kelman at 41 Euclid Street, Cohoes, NY 12047.

Residual recycling is brought to Winter Brothers Recycling, located at 19 Nancy Street, West Babylon, NY 11704, for processing. The recyclables are sorted and plastics, tin and aluminum are recovered, baled and sold to various manufactures to produce new products. Permitted capacity is 3,600 tons per week.

Non-recyclable MSW is brought to the Town of Islip's Incinerator which is operated by Covanta and located at 4001 Veterans Memorial Highway, Ronkonkoma, NY 11779. The refuse is incinerated and the energy is transformed into electricity. The ash byproduct is returned to the Brookhaven Landfill located at 350 Horseblock Road.

3.9 Town In-House Waste Collection

Solid waste from all Town owned offices, buildings and park facilities are collected by two Town of Riverhead Sanitation Department Employees who utilize Town vehicles and equipment. The MSW is transported to Peconic Recycling and Transfer Corp. located at 560 Commerce Driver in Cutchogue, NY. At Peconic Recycling and Transfer the MSW is separated from the recyclables. The non-recyclable MSW is baled and transported to several different out of state landfills located in Virginia or Ohio and contracted with Peconic Recycling and Transfer. The precise disposal location is dependent upon the type of material and the current market. The plastic and cardboard is baled and shipped overseas or brought to local scrap metal firms such as PK Metal and Gershow Recycling. Gershow Recycling is located at 27 Hubbard Avenue in Riverhead, NY 11901.

3.10 Public Education and Outreach Activities

Public education and outreach activities are provided through multiple outlets and methods. The Town maintains

an active website specific to the solid waste and recycling program. The Town's website includes current information on solid wastes and recyclables managed through the Town's program, curbside pickup schedule for MSW, recyclables and yard waste, specific information on customer guidelines, prohibited items, options for household hazardous wastes, compost availability, and links to other relevant websites (www.townofriverheadny.gov).

The Town has a storm water pollution prevention/waste recycling education program with the Third Grade at Roanoke Avenue School. The program involves the Sanitation and Engineering Departments visiting Roanoke Avenue School to promote storm water pollution prevention and waste recycling. The program also focuses on the Town's curbside program and how the recovered materials are processed and returned to the economic stream as useable goods. Available education materials are distributed to the children. The program is well received and the Sanitation and Engineering Departments are planning to present to a higher grade at Riley Avenue School.

In-house waste reduction, recycling and materials management education and program support is provided on an as-requested basis to local industry, businesses, schools, and community groups.

The Town's Sanitation Department is a member of the Recycling Coalition of Long Island. This coalition meets, defines and implements goals for recycling in Suffolk County. The Sanitation Department also meets with Suffolk County Legislature and the Long Island Solid Waste Leadership Council to discuss glass recycling issues and alternative disposal methods after the Brookhaven Ash Landfill is closed in 2024. The recycling flyer developed by Suffolk County graphically illustrates the proper and improper methodologies for recycling. This flyer is included in Appendix E.

3.11 Flow Control Constraints

Flow control refers to a legally authorized requirement that waste be delivered to specified facilities. There is no Town implemented or sanctioned flow control systems currently or anticipated for the planning unit.

3.12 Incentive Strategies

MSW and recyclables generated within the Town of Riverhead and delivered to an out of town disposal facility are subject to a disposal fee. Other waste items subject to disposal fees include construction & demolition debris, contaminated soils, and asbestos. Recyclable items are accepted by the Town at no fee to provide economic incentive to recycle for all waste generators, regardless of the collection methods used.

3.13 Institutional Programs for School Districts, Colleges, Hospitals, and Prisons

Recycling efforts at institutions and schools are self-selected by the waste generator. Under the local solid waste management plan, materials collected privately within the Town must be in compliance with local laws - adhering to recycling of designated recyclables and material handling guidelines for the ultimate disposal location. The manner in which the waste generator selects to meet this standard is self-determined. There is no planning unit sponsored programs specifically targeting institutions, schools, colleges, hospitals, or prisons existing currently or anticipated for the planning unit.

3.14 Industrial Recyclables Recovery Efforts and Strategies

Many industries and commercial establishments have a long history of self-marketing their recyclable and waste materials. The Town does not intervene into these activities, and these establishments are free to market their own recyclable materials and retain all the financial benefits. These direct recycling efforts represent an institutionalization of recycling activities and provide the momentum to continue significant commercial recycling during economic down times and bolstering recycling activities when economics and commodities market values are high. The Town does not require businesses to report information on quantities of recyclables managed by industrial and commercial establishments. When managed by private waste hauler, smaller commercial and institutional waste generators are aggregated within the general customer base. Regardless of the system used, the Town mandated recyclables and solid waste program guidelines are applied uniformly across the entire Town, and are applicable to industrial, commercial, and institutional generators.

3.15 Residential Recycling Program Excluded from the Collection District

Recyclable collection from residential condominiums, private community townhouse developments, cooperatives and trailer parks are not serviced in the Town's Solid Waste District and are handled by various local private commercial carters. These non-serviced residential properties typically contain commingled only and cardboard only dumpsters or compactors to store recyclables which are placed in the rear of the residential developments. Private commercial carters collecting recyclables operate under the Town's solid water carter permitting system and must obtain a waste disposal license to perform business inside the Town.

3.16 Former MSW Landfill

3.16.a. Landfill

The Towns former MSW Landfill operated from 1968-1993 at which time it was closed. The landfill is located at 437 and 483 Youngs Avenue in Calverton (see Appendix F for Site Plan). The landfill's physical condition is inspected monthly by a privately contracted consultant and a report detailing findings and recommendations is submitted to the Town. A monitoring well network located in and around the landfill is sampled quarterly and the findings and recommendations reported to the Town and NYSDEC.

3.16.b. Transfer Station

When the Town's landfill was closed, the Town opened a transfer station from 1993-1996 on the landfill parcel. The Sanitation Department in conjunction with private commercial carters contracted by the Town utilized the transfer station to handle the residential and nonresidential waste streams. The Town shipped wastes to off-Island disposal facilities through waste disposal trucking contracts.

3.16.c. Landfill Gas Collection

The Town's former landfill located on Young's Avenue maintains a passive methane gas collection system through vents in the landfill cap. The system is inspected monthly. Methane gas generated from the landfill was actively used for the generation of electricity for sale to the local utility company (PSEG formerly LILCO) from 1986 to 1992. Methane gas was "harvested" from the landfill by a private company (United Energy) through a series of PVC wells connecting to mechanical vacuum compressor. This gas was then directed to a one Mega Watt (MW) reciprocating engine driven generator. Electricity produced from this generator was then sold to the local utility. Proceeds from the sale of electricity were shared between the United Energy and the Town of Riverhead as areas of the landfill became depleted of methane gas, the wells were moved to other areas of the landfill. Eventually, after all areas of the landfill became deplete of gas, the system was shut down. Current monthly testing of the now capped landfill gas vents indicates very minimal presence of gas remaining.

3.17 Beneficial Use of Solid Waste

Materials are collected from residents and disposed of by the designated end user. Therefore there is no evaluation by the Town of waste for potential beneficial use. Most recyclables are collected and reused by recycling materials such as cardboard, plastics, glass, etc.

3.18 Yard Waste

The Town's collection for residential yard waste for 2019 is as follows:

- No grass collection;
- Residents may drop off yard waste, including grass, at the Town's yard waste facility, 532 Youngs Avenue, Calverton.
- The Town's contracted carter, European American, will collect paper-bagged, bundled and/or containers of yard waste on bulk days generally twice per month with less days monthly in the winter

and more during the autumn. Yard waste disposal days are indicated on the annual recycling calendar (Appendix B). There is no limit on yard waste pickup from the curb.

In 2003, the Town received NYSDEC Registration 52C28R for accepting and processing up to 10,000 cubic yards of yard waste annually at 437 and 483 Youngs Avenue on the south side of the road. On August 25, 2009, the Town yard waste facility moved to the north side 532 Youngs Avenue on the north side of the road and was assigned DEC Registration Number 52Y72R. The facility is located between the former Town Animal Shelter to the east and Crown Recycling to the west on approximately two acres. This facility no longer maintains a NYSDEC Registration as its annual throughput volume is less than 3,000 cubic yards (refer to Appendix G for facility layout). From 2003 to 2018 the Town reported its annual throughput to the NYSDEC based on the various types of yard waste processed.

Only clean unbagged yard waste consisting of leaves, brush, logs, stumps, garden debris and grass is accepted at 532 Youngs Avenue. Crown Recycling processes this material on site and disposes of it off site through sale as mulch. Mulch is offered to Town residents free of charge at the north yard waste facility.

Town residents may purchase annual permit stickers for dumping loose yard waste at the Town facility from the Tax Receiver's office located at Town Hall, 200 Howell Avenue. The fee for an annual permit is $50.00. A one day pass is also available for a fee of $15.00. Residents must bring their vehicle registration for the vehicle they intend to use in order to purchase a permit. Dump body vehicles, double axel trailers and commercial vehicles are ineligible for a permit. The facility is closed Tuesday, Wednesday and holidays, and open the remainder of the calendar week from 7:00 AM to 3:30 PM. Residents are encouraged to mulch and home compost grass clippings and other yard waste. Grass clippings are not picked up by the Town contracted private commercial carter.

3.19 Composting

The Highway Department operates a compost facility at 437 and 483 Youngs Ave in Calverton. The facility operated from 1997-1999 and from 2003 through the present. Loose leaf pickup by the Highway Department is conducted each fall when residents rake their leaves to the curb and highway vacuums the leaves and delivers them to the compost facility. The leaves are trammeled, windrowed and turned until the material decomposes to form compost and topsoil. The compost and top soil are stored in piles at the Highway yard for free pickup by residents.

In addition, Highway picks up storm debris located within the Town Right of Way (ROW) and delivers it to the compost facility. The storm debris is placed in piles and occasionally ground up through a private contract with Crown Recycling. The chips are reused for mulching ROWs and also placed in a pile at the Highway yard for free pickup by residents.

The facility is unregistered as of 2020 with a maximum throughput capacity of 3,000 cubic yards annually. The former NYS Registration Number for the facility is 52C28R (refer to Appendix H for facility layout). From 2003 to 2018 the Town reported its annual throughput to the NYSDEC based on the various types of yard waste processed.

3.20 Reuse Centers and Material Exchanges

Both the private sector and the not-for-profit community provide a multitude of locally based centers for material reuse and exchange. The County encourages the creation, use, and expansion of existing outlets, including Church sponsored community closets for clothing and housewares, and the following nonprofit organizations: East End Disability Associates, Inc. provides 12,497 permanent residences for developmentally disabled individuals located in communities in the eastern end of Long Island NY; Aid to the Developmentally Disabled Inc which provides the optimum level of quality rehabilitation services to all individuals living within its residential program; Harvest End Inc elevates the profile of the Long Island wine region and raises funds for charities that are regional in scope, benefitting people, land, and the environment across the east end of Long Island; Cornell Cooperative Extension is an educational agency assisting local residents and businesses to develop leadership skills and solve their environmental, economic, community and family problems through the application of research-based information; Open Arms Care Center Inc. which is a food pantry providing free food to needy people in the Riverhead area; the Salvation Army providing resale of second hand and used merchandise stores, thrift stores, and used clothing retail; and the Timothy Hill Children's Ranch at Riverhead

provides residential programs on the Long Island, NY campus consisting of 8 homes and 2 horse farms across 86 acres that serve as a safe haven for at-risk children and young people age 11-24. These individuals often struggle with issues of abuse, neglect, homelessness, addiction, or alternative to incarceration. The Ranch operates a Thrift Shop from donated goods.

Reuse centers are most valuable when they are located near population centers and when dry, clean, and secure holding areas for the products can be provided to ensure that these items are in usable condition prior to donating. Having several centers located throughout the community enhances access for community members. The Town recommends the continued support of these existing venues for material reuse.

Commercial firms, industrial enterprises, and other commercial entities in the Town vary widely in recycling practices from business to business. Businesses commonly hire a private hauler to transport waste and recyclables to local out of Town recycling centers.

3.21 Intermediate Processing of Recyclables

The Town exclusively processes its residential recyclables through collection by the Towns contracted carter. The carter in turn delivers paper and cardboard to Great Northern Fibers in West Babylon, NY, and cans and bottles to the Town of Islip.

3.22 Markets for Recovered Recyclables, Market Assistance, and Future Market Development

The sale of recyclables continues to be controlled by the high volatility, low value, commodities marketplace. Accordingly, markets are reviewed continually for changes in market acceptance standards and pricing. Dynamic market review provides for maximum recovery of materials and minimal land burial. Cessation of a market, either temporarily or permanently can cause tremendous complications to a program. To protect against this, at least two markets are utilized whenever possible, and has proven to be more reliable and financially beneficial for the Town, allowing for multiple vendors and to take advantage of swings in the marketplace, both positive and negative. Market assistance is provided by statewide trade associations, in particular the New York State Association for Reduction, Reuse, and Recycling regional networking efforts among members. Market expansion since the original solid waste management plan of 1990 has been strong until the last year. Markets of today are less reliable and are a losing venture, providing little economic benefit for recycling communities. With the strict tariffs in China limiting recycling options the market has slowed considerably and is actually costing the carter and Town for processing.

3.23 Stop Throwing Out Pollutants Day

STOP Day began in 1985 and is still in operation today. STOP Days are held twice annually, one in May/June and the other in October. STOP Days take place in the Highway Department yard at 1177 Obsborn Ave. in Riverhead. During STOP Day, used household hazardous waste products from residents is collected and hauled away by a licensed hauler and disposed of at several facilities depending on the type of waste (see Appendix I for Town of Riverhead 2020 STOP Days Flyer). Disposal methods include reuse, landfilling and incineration. Vehicles transporting regulated waste for STOP Day, including tires and HHW, must be permitted annually per 6 NYCRR Part 364.

3.24 Timothy Hill Children's Ranch

Timothy Hill Children's Ranch at 296 Middle Road in Riverhead sells donated used clothing and household products to the general public with profits being used by Timothy Hill. Timothy Hill's residential Long Island, NY campus consists of 8 homes and 2 horse farms across 86 acres that serve as a safe haven for at-risk children and young people age 11-24. The programs focus on education, vocational training, life coaching and spiritual guidance set in an equestrian, adventure-based setting with the goal of transforming lives. Trained professional staff teach them how to become productive citizens through career counseling, caseworker & caretaker support and creating a plan for transitioning back into the community.

CHAPTER 4 - ADMINISTRATION, LAWS AND REGULATIONS, AND FINANCIAL STRUCTURES

4.1 Enforcement of Local Laws Addressing Solid Waste and Recycling

Zoning changes in 2005 (Town Code 235-5; Hazardous Materials; Waste Disposal Sites) state, "The construction and operation of waste disposal centers to store, collect or dispose of by-product materials shall be prohibited from all zoning districts within the Town of Riverhead." There are no known local laws, rules, regulations, or ordinances that could cause potential constraints to recyclables recovery within the Town. Laws are in place that either directly mandate or indirectly encourage recyclables recovery within the Town. These laws are defined in Chapter 273 Solid Waste of the Town Code. The purpose of this revised ordinance, amended by the Town in June 2012 is "The purpose of this chapter is to protect and promote the health, safety and welfare of the residents of the Town of Riverhead by controlling the storage and disposal of solid waste generated within the Town in the most economical and environmentally acceptable manner; provide for the orderly collection of solid waste; implement the Town of Riverhead Solid Waste Management Plan; comply with the requirements and further the purposes of the New York State Solid Waste Management Act; and to protect the drinking water supply in the Town of Riverhead. In addition, the Town Board finds that increased efforts to recover and reuse recyclable materials will protect and enhance the Town's physical environment and promote the health and safety of persons and property within the Town. The provisions set forth herein seek not only to facilitate the implementation and operation of an environmentally sound solid waste management program and conservation of natural resources but to promote the recovery of materials from the Town's solid waste stream for the purpose of recycling such materials by source separation. Accordingly, the Town Board finds it is necessary to expand the Town's recycling program to provide opportunities for nonresidential, commercial, industrial and institutional establishments to recycle. Nothing herein is intended or should be construed to modify or amend any terms or conditions of any contracts for solid waste services to which the Town of Riverhead is a party in effect on the effective date of this chapter." The major components of this local ordinance that either mandate or encourage recycling are summarized as follows:

Article I General Provisions
§ 273-1 Title.
§ 273-2 Purpose; findings; construal of provisions.
§ 273-3 Definitions.

Article II Solid Waste Generated at Residences Located Within Solid Waste District
§ 273-4 Establishment of district.
§ 273-5 Container requirements.
§ 273-6 Times for placement and collection; removal; storage.
§ 273-7 Collection of seasonal or special items.
§ 273-8 Source separation of recyclable materials.

Article III Solid Waste Generated at Commercial and Institutional Operations within Town
§ 273-9 Container requirements.
§ 273-10 Source separation requirements.

Article IV License Requirement for Collectors of Solid Waste Generated at Commercial and Institutional Operations
§ 273-11 Authorized collectors; licensing requirements.
§ 273-12 Enforcement; penalties for offenses.

Article V General Provisions Applicable to Solid Waste for All Properties and Uses
§ 273-13 Accumulation of solid waste; responsibility of owner and occupant.
§ 273-14 Collection of recyclable materials placed at curb line or pavement line. [1]
§ 273-15 Burning.
§ 273-16 Deposit on public or private property.
§ 273-17 Applicability.

4.2 State and Other Laws Addressing Solid Waste and Recycling

The NYCRR Part 360 regulations, administered by the NYSDEC, specifically address the management of solid waste and provide the regulatory framework within which the Town's solid waste program is administered. These regulations apply statewide and govern a broad array of waste streams and management methods ranging from MSW landfills to transfer stations, recycling facilities, composting operations, management of construction and demolition debris, wood waste, and fill material, and include permitting requirements for waste transport. Administered statewide, the NYS regulations establish baseline performance standards that must meet or exceed sound environmental protections in the management of solid waste. The State regulations require the Town to develop a solid waste management roadmap that this DLSWMP addresses and further regulates town solid waste facilities.

4.3 Local Laws or Ordinances That Must Be Adopted

This plan recommends developing a commercial waste and recycling district at the EPCAL Development Zone and in the downtown commercial area. A Town commercial solid waste district would stabilize disposal prices, reduce traffic and provide recycling services to all the tenants. The plan recommends assigning a full time code enforcement office to investigate sanitation violations, including unlicensed carters which are operating within the Town. Town code requires the private sector to provide recycling pickup.

4.4 Commercial Haulers and Flow Control

The financial revenues necessary for the solid waste program are provided primarily by a dedicated Sanitation tax. The solid waste program has been structured around providing services strictly limited to the Town of Riverhead generated waste streams. The absence of tipping fees protects the Town and its residents from the market fluctuations present in the solid waste disposal industry.

Private carters working within the Town are required to obtain an annual permit from the Sanitation Department. These carters are registered in the Sanitation Department database. A condition of registration is for private carters to report solid waste volumes collected quarterly.

4.5 Administrative Structure

The Town Sanitation Department has the necessary administrative structure in place to implement the Local Solid Waste Management Plan.

The Sanitation Department is overseen by the Superintendent of Sanitation. Ultimately, the Sanitation Department is governed by the Town Board and Town Supervisor. It is the responsibility of the Town Board to make policy and to formally adopt and/or approve major policy decisions. Board resolutions are used to authorize the Sanitation Department to take necessary actions to implement Board specified policies, including making the appropriate management decisions, and allocating resources of personnel, equipment, and funding to implement the Local Solid Waste Management Plan.

4.6 Staffing and Organizational Structure

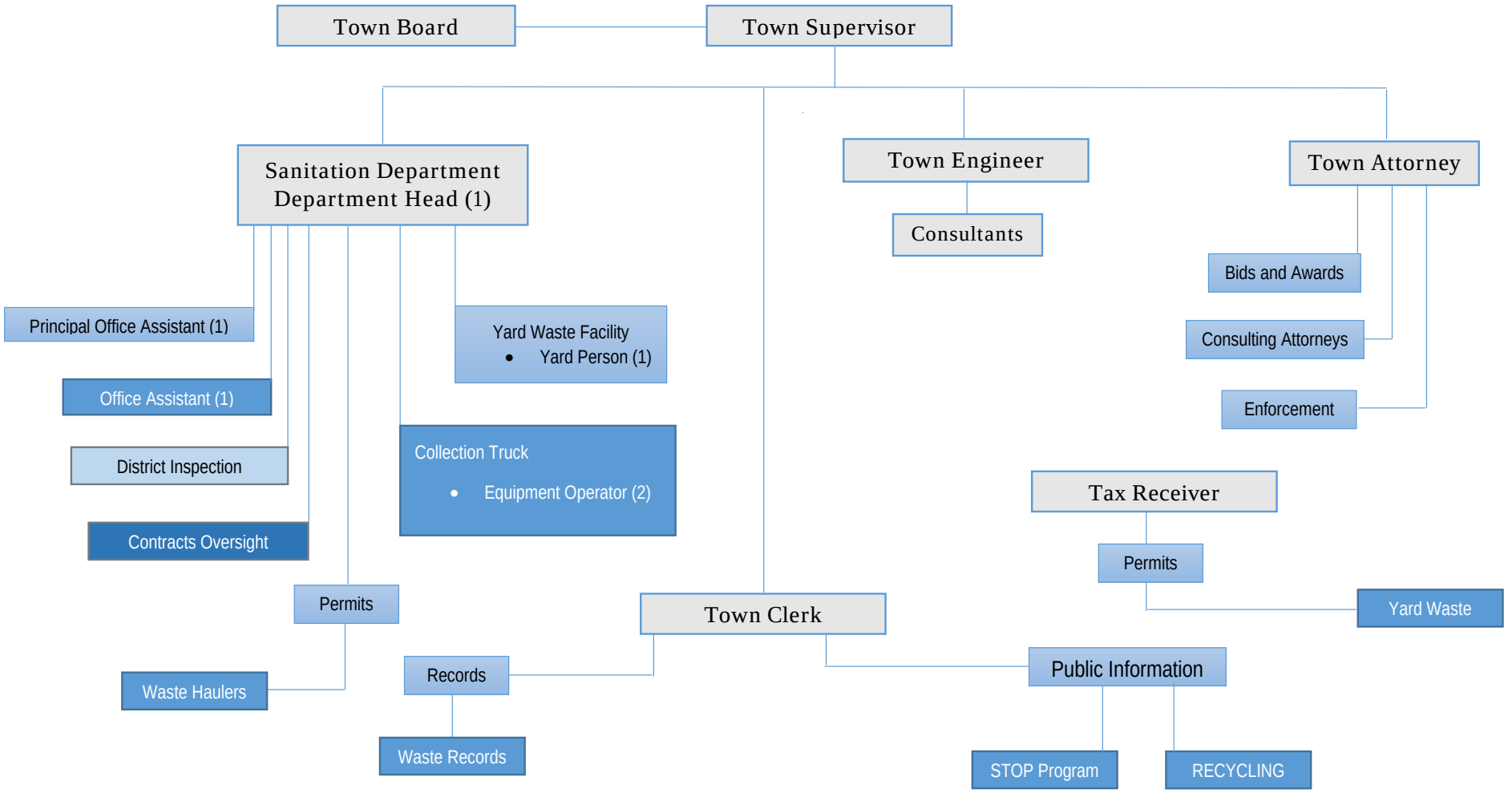
The Solid Waste Administration and Staffing Chart (see figure next page).

4.7 Neighboring Jurisdictions and Financial Considerations

The Sanitation Department provides centralized services for the Town. Additionally, Sanitation provides transportation, recycling, disposal, and regulatory support services for the Town through their private carter and through Town trucks delivering solid waste from Town facilities to Peconic Recycling and Transfer Center.

The Town's private carter delivers paper and cardboard to Great Northern Fibers in West Babylon, NY. Plastic, glass and tin are delivered to the Town of Islip Transfer Station. The remainder of the solid waste is delivered to the Town of Brookhaven's Landfill located in Brookhaven, NY.

Solid Waste Management Administration and Staff



As noted earlier, the financial revenues necessary for the solid waste program are provided primarily by a dedicated Sanitation tax.

4.8 Anticipated Changes to the Local Planning Unit

The planning unit is dedicated to Town of Riverhead residents and businesses. There are no plans to expand membership or otherwise merge the solid waste activities with other surrounding communities. Solid waste services will be designed for Town of Riverhead capacity.

4.9 Anticipated Changes to the Waste Stream in the Local Planning Unit

Dramatic changes in the waste stream within the local planning unit are not anticipated for this 10 year planning period. Incremental changes are anticipated following the new updating of NYS solid waste regulations and continued changes in product packaging for post-consumer wastes as a reflection of generally available consumer goods. Should there be a significant increase or loss of industry, any associated impacts to the solid waste program will be addressed in subsequent solid waste planning updates. Detailed waste projections and characterizations are provided in Chapter 2 - WASTE GENERATION & MATERIALS RECOVERY DATA AND PROJECTIONS.

4.10 Costs for Town of Riverhead Municipal Solid Waste Program

The Town's solid waste management program is subsidized by a Sanitation Tax for curbside solid waste collection and by the Town's General Fund through taxes for landfill closure and post-closure costs. The 2021 Sanitation Tax is based on the following payment schedule for residential use:

$367.00 – Single Family
$550.50 – Two Family
$734.00 – Three Family
$917.50 – Multi-Family

The Sanitation Tax includes costs for recycling. The annual cost of the solid waste management program is approximately $4.2 million. The Town's STOP program is financed by NYS grants.

The planning unit also researches opportunities to utilize capital investment grants along with recycling program and outreach grants to help fund the program. These grants typically award a 50% reimbursement but funding can prove to be limited.

Appendix J shows the costs for all solid waste management facilities and programs operated or administered by the Town of Riverhead including capital investments, insurance, operation, maintenance, closure and post-closure costs, administration and financing.

CHAPTER 5 - INTEGRATED SYSTEM SELECTION

The Town's solid waste program is fully integrated, currently utilizing multiple approaches to solid waste management, including curbside collection of MSW and recyclable materials, electronics recycling, STOP events (includes car, marine and rechargeable battery recycling), scrap metal recycling, C&D recycling and yard waste reuse. While upgrades to the existing technology are necessary for maintenance and to provide increased capacity and material handling improvements, no significant technology changes from existing approaches are anticipated during the planning period. The Town anticipates continuing the current integrated, multi-disciplinary approach to solid waste services.

5.1 Identify the Integrated Solid Waste Management System Selected

The program selected for this DLSWMP is a continuation of the current integrated system, with programmatic enhancements necessary to insure long term, reliable, solid waste services. First, the Town will continue to emphasize reuse, reduction, and waste toxicity reduction efforts; followed by recycling and composting programs. The remainder of the waste stream will be disposed of using the current system of disposal.

Maintenance of the yard waste facility is recognized as a long term need that will continue during the 10 year window of the current planning period. Monitoring the yard waste facility's performance and condition will be ongoing as needed to recognize in advance of the need for significant repair or improvements or potentially exceeding NYSDEC operating volume permit limits.

Recycling of multiple materials will continue and be enhanced to capture greater volumes of materials from the disposal side of solid waste stream. Capture and diversion of hazardous and semi-hazardous materials will continue in a manner that is environmentally beneficial and also provides needed services to our citizens, such as Conditionally Exempt Small quantity generator (CESQG) wastes, household hazardous waste collection (STOP Day), and pharmaceutical drop-off (at Police Department and STOP Day).

5.2 Justification of Service Selection

The Town will continue to pursue the integrated system described herein because it has a proven track record of success, is well received and utilized by our customers, environmentally responsible, cost competitive, and a long term reliable approach.

5.3 Size/Capacity of Operation

The size and capacity of our recycling and MSW program currently service the needs of the planning unit's service community. The Town of Brookhaven Landfill will close in 2024. Finding an alternate MSW disposal location will be necessary to insure the long term goals of the solid waste program are met for continued comprehensive and reliable waste management services.

5.4 Equipment for Program Implementation

The equipment necessary for the continued fulfillment of the solid waste management plan goals is currently owned by the carter. Equipment is regularly maintained by the contracted carter's staff, evaluated for replacement, and replaced as needed. New equipment is purchased as the need demands and/or as program changes necessitate. Additional equipment needs will be evaluated as program changes demands.

5.5 – Alternatives Analysis Tables

5.5.a MSW WASTE REDUCTION PROGRAMS	SUMMARY OF STATUS & RECOMMENDATION ▸ PUBLIC/PRIVATE PARTNERSHIP - Continue support of public and private waste reduction efforts that focus on local donation based reuse and distribution centers for common household goods, clothing, food stuffs, appliances, and building materials. ▸ GLASS REDUCTION - Reduce the volume of glass in the MSW stream through promotion of bottle redemption, and recycling. ▸ FILM PLASTIC REDUCTION - Encourage agricultural practices that minimize use of film plastic which are difficult to recover, and encourage residential use of store based bag recycling that have more direct marketing agreements.

CRITERIA OF EVALUATION	ALTERNATIVE SELECTION STATUS
1) ADMINISTRATIVE/TECHNICAL IMPACTS 1i) Waste Stream Impact - Quantitative/Qualitative - Additional MSW waste reduction efforts are expected to reduce MSW select waste volumes by 5%. 1ii) Appropriate Type & Size of Facilities or Program - Not size restricted, no infrastructure required by Town. Infrastructure requirements will be specific to individual waste generator. Analysis of commercial/industrial waste reduction cost is beyond the scope of this DLSWMP. 1iii) Cost & Lifecycle Analysis - Waste reduction efforts are expected to add no measurable cost to the residential waste generator. Commercial/industrial waste reduction programs for non-MSW wastes will have varying costs specific to the individual generator and waste material of concern. Analysis of commercial/industrial waste reduction cost analysis is beyond the scope of this DLSWMP. 1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - MSW waste reduction is generally expected to provide for natural resource conservation. Energy production and job creation is not anticipated through this activity. 2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN RIVERHEAD TOWN 2i) Assessment of Participation Interest Potential by Neighboring Planning Units -potential for participation by neighboring Planning Units is believed to focus on common messaging where common waste reduction program guidelines exist. 2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units. 2iii) Comments Received by Neighboring Planning Units - none at this time. 2iv) Assessment of Environmental Justice Within the Town of Riverhead - there is no known or expected environmental justice impact within the Town associated with waste reduction efforts and activities.	1) ALTERNATIVE CHOSEN & WHY - see above 2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON - Waste Reduction - actions expected to reduce select waste volumes by 5% Reuse - actions expected to enhance reuse <5% Materials Recovery - actions expected to improve material recovery of select waste materials by 5% Participation in Recovery Opportunities - actions expected to enhance participation <5% Product Stewardship - no measurable impact on product stewardship expected Economic, administrative or partnership benefits - actions expected to reduce direct expenses by <5%. 3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing and proposed waste reduction activities. 4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time. Work cooperatively with local officials to insure that these laws and policies do not interfere with waste reduction efforts.

5.5.b DEVELOPMENT AND IMPLEMENTATION OF REUSE PROGRAMS	SUMMARY OF STATUS & RECOMMENDATION ▸ REUSE CENTERS & PROGRAMS - Continue existing efforts to support public and private local efforts in material reuse such as appliances, heating systems, and other durable goods. ▸ OVERSIGHT OF LOCAL LAWS - work to insure that Town laws and policies encourage waste reduction.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative - MSW generation rate is currently estimated at 5.15 lbs/person/day which is the same as the state average. Additional MSW reuse efforts are expected to reduce MSW waste volumes by <5%.

1ii) Appropriate Type & Size of Facilities or Program - Not size restricted, no infrastructure required by Town. Infrastructure requirements will be specific to individual waste generator. Analysis of commercial/industrial waste reuse cost analysis is beyond the scope of this DLSWMP.

1iii) Cost & Lifecycle Analysis - Product reuse activities are expected to add no measurable cost to the waste generator. Commercial/industrial waste reuse programs for non-MSW wastes will have varying costs specific to the individual generator and waste material of concern. Analysis of commercial/industrial waste reuse cost analysis is beyond the scope of this DLSWMP.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - MSW reuse is generally expected to provide for natural resource conservation. Measurable energy production and /or job creation are not anticipated through this activity.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - potential for participation by neighboring Planning Units is believed to focus on common messaging where common reuse program guidelines exist.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - there is no known or expected environmental justice impact within the Town associated with waste reuse efforts and activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -

Waste Reduction - actions expected to reduce waste volumes by <5%
Reuse - actions expected to enhance reuse <5%
Materials Recovery - actions expected to enhance materials recovery <5%
Participation in Recovery Opportunities - actions expected to enhance participation <5%
Product Stewardship - no measurable impact on product stewardship expected
Economic, administrative or partnership benefits - actions expected to reduce direct expenses by >5%.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing and proposed waste reuse activities.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations are identified as necessary at this time. In support of locally based reuse centers, work cooperatively with Town officials to ensure that local laws and policies do not interfere with waste reuse efforts.

5.5.c RECYCLABLES RECOVERY PROGRAMS FOR PAPER, METAL, GLASS, TIN AND PLASTIC	SUMMARY OF STATUS & RECOMMENDATION ▸ PLASTICS, TIN, METAL AND GLASS RECYCLING- Continue existing efforts for recovery of consumer containers. ▸ OVERSIGHT OF LOCAL LAWS - work to ensure that local laws and policies do not interfere with recycling efforts.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative - Recycling efforts for common curbside items are expected to reduce MSW volumes at least 5% over the 10 year planning window of the DLSWMP.

1ii) Appropriate Type & Size of Facilities or Program – Recyclables collected at curbside are transported by the Town's contracted carter to out of Town facilities for processing.

1iii) Cost & Lifecycle Analysis - Recycling activities are expected to add no measurable cost to the waste generator. Commercial/industrial waste recycling programs for non-MSW wastes will have varying costs specific to the individual generator and waste material of concern. Analysis of commercial/industrial waste recycling cost analysis is beyond the scope of this DLSWMP. Operation costs for the Towns recycling program are not expected to rise significantly and will be readily covered thru current budget projections.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - MSW recycling is generally expected to provide for natural resource conservation. Measurable energy production benefits are not anticipated through this activity. Jobs that currently exist in the operation of the Town's MSW program are expected to remain constant during the 10 year planning window.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - potential for participation by neighboring Planning Units is believed to focus on common messaging where common recycling program guidelines exist.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within The Town of Riverhead - there is no known or expected environmental justice impact within the Town associated with waste recycling efforts and activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -

Waste Reduction - actions expected to reduce waste volumes by <5%

Reuse - actions expected to enhance reuse <5%

Materials Recovery - expected to enhance materials recovery ≥5% during planning period

Participation in Recovery Opportunities - actions expected to enhance participation <5%

Product Stewardship - no measurable impact on product stewardship expected

Economic, administrative or partnership benefits - actions expected to reduce direct expenses by <5%.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing and proposed waste recycling activities.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time. In support of the Town's MSW Program, work cooperatively with local officials to ensure that laws and policies do not interfere with recycling activities.

5.5.d

ORGANICS RECOVERY PROGRAMS FOR FOOD SCRAPS, YARD TRIMMINGS, AND BIOSOLIDS

SUMMARY OF STATUS & RECOMMENDATION

- COMPOST FACILITY - Continued operation & maintenance of Town owned and operated composting facility. Operations include ongoing maintenance and capital repairs to retain facility capacity and reliability as well as storm debris management. Operations are carried out by the Highway Department.
- YARD WASTE FACILITY - Maintain equipment and site capacity for woody debris grinding and chipping, and for trommeling leaves.
- BIOSOLIDS REDUCTION – The Town is not involved in a biosolids reduction program.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative –The Town of Riverhead's solid waste program does not have an organics diversion program.

1ii) Appropriate Type & Size of Facilities or Program - Compost facility already exists in support of processing and giving away compost to the public.

1iii) Cost & Lifecycle Analysis – The Town's composting facility has been operational for over 10 years and is not expected to measurably impact cost to consumers. Facility maintenance and a capital replacement are minimal.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs – Yard waste management and composting is generally expected to provide for natural resource conservation. Measurable energy production is <5%. Jobs that currently exist in the operation of the yard waste and compost facilities are expected to remain constant during the 10 year planning window.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - potential for participation by neighboring Planning Units is limited by facility capacity, with no net excess capacity anticipated for the 10 year planning period.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - there is no known or expected environmental justice impact within the Town associated with yard waste management or composting efforts and activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see

above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -

Waste Reduction - actions expected to reduce waste volumes by <5%

Reuse - actions expected to enhance reuse <5% from current levels.

Materials Recovery - actions expected to enhance waste reuse <5% from current levels.

Participation in Recovery Opportunities - actions expected to enhance participation <5%

Product Stewardship - no measurable impact on product stewardship expected

Economic, administrative or partnership benefits - actions expected to reduce direct expenses by <5%.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing and proposed waste reduction activities.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time.

5.5.e PROGRAMS TO DEVELOP OR IMPROVE LOCAL AND REGIONAL MARKETS FOR RECYCLABLES	SUMMARY OF STATUS & RECOMMENDATION ▸ Continue collaboration with the Community Development Department and Planning Department in support of locally based market development. ▸ Continue work with local officials to ensure that local laws and policies do not unduly interfere with market development activities. ▸ Success has been made with on-farm composting, mulch, building supply reuse, and container redemption. ▸ Efforts are on-going to expand local compost markets in distribution, pelletization, and year round compost product utilization.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative - Local market development is expected to result in increased opportunities for and support of recycling efforts.

1ii) Appropriate Type & Size of Facilities or Program - Not size restricted, no infrastructure required by Town.

1iii) Cost & Lifecycle Analysis - Administrative cost is currently imbedded in program budget with no additional administrative or technical impacts known or anticipated. Cost and lifecycle analysis of commercial/industrial local market development are beyond the scope of the DLSWMP.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - Market development and enhancement is generally expected to provide for natural resource conservation and job opportunities. Resource and employment impacts of commercial/industrial local market development are beyond the scope of the DLSWMP.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - activities are not dependent upon participation of other Planning Units.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - at this time there is no known or expected environmental justice impact within the Town associated with market development activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - local market development has the potential to divert material from the waste stream and as such is supported by the cooperative actions of the Town's Sanitation Department, Planning Department, and the Community Development Department, in addition to appropriate state and federal agencies. This alternative's action will focus on continuing those cooperative efforts.

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON - material diversion impacts are inherently dependent upon materials targeted for recovery and market success. With the exception of scrap metal, there are no known new locally based markets for recyclables at this time. Accordingly, quantitative and qualitative impacts are not predictable.

Waste Reduction - Impacts are not predictable.

Reuse - Impacts are not predictable.

Materials Recovery - Impacts are not predictable.

Participation in Recovery Opportunities - Impacts are not predictable.

Product Stewardship - Impacts are not predictable.

Economic, administrative or partnership benefits - Impacts are not predictable.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing and proposed waste reduction activities.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time.

5.5.f ENFORCEMENT PROGRAMS	SUMMARY OF STATUS & RECOMMENDATION ▸ Continue enforcement of existing local laws and local carter permit system.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative - Enforcement actions are generally expected to reduce the quantity of waste directed for disposal, and increase quantities of recoverable material streams.

1ii) Appropriate Type & Size of Facilities or Program - Not size restricted, no infrastructure required by Town.

1iii) Cost & Lifecycle Analysis - Enforcement of solid waste program rules for curbside pickup are costs currently imbedded in program budget with no additional administrative or technical impacts known or anticipated.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - Enforcement actions are generally believed to have positive impacts on natural resource conservation, energy production, and jobs.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - activities are not dependent upon participation of other Planning Units.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - at this time there is no known or expected environmental justice impact within the Town associated with market development activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -
Waste Reduction - actions expected to reduce waste volumes by >18%
Reuse - actions expected to enhance reuse 15%
Materials Recovery - actions expected to enhance waste reuse 15%
Participation in Recovery Opportunities - actions expected to enhance participation >5%
Product Stewardship - no measurable impact on product stewardship expected
Economic, administrative or partnership benefits - actions expected to reduce direct expenses by <5%.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing and proposed waste reduction activities.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time.

5.5.g INCENTIVE-BASED PRICING	SUMMARY OF STATUS & RECOMMENDATION ▸ The Town's solid waste program provides disposal for MSW and recyclables for all residents based on an annual sanitation tax. There is no Town PAYT (pay as you throw) system. This programmatic choice supports proper waste management and minimizes the perceived need for illegal disposal and littering, and further minimizes financial impacts to the Town. Bag fees and PAYT programs are documented to be disadvantageous to lower income families and individuals, creating financial hardship that discourages proper disposal of solid waste. ▸ C&D wastes are collected curbside in limited quantities. C&D debris is collected curbside by the Town's contracted carter on bulk days. Bulk rules apply to C&D pickup: maximum of six items; no item may weigh more than 50 pounds; maximum dimension is four feet; and loose debris must be containerized, bundled, maximum two feet diameter, or stacked.

CRITERIA OF EVALUATION 1) ADMINISTRATIVE/TECHNICAL IMPACTS 1i) Waste Stream Impact - Quantitative/Qualitative - Negative impacts in the form of increased littering is anticipated with implementation of a PAYT system. 1ii) Appropriate Type & Size of Facilities or Program - No new infrastructure is required. 1iii) Cost & Lifecycle Analysis - No cost impacts anticipated with retaining existing cost structure. 1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - No impacts are anticipated. 2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN 2i) Assessment of Participation Interest Potential by Neighboring Planning Units - potential for participation by neighboring Planning Units is not expected at this time. 2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units. 2iii) Comments Received by Neighboring Planning Units - none at this time. 2iv) Assessment of Environmental Justice Within the Town - no negative impact anticipated from proposed activities.	ALTERNATIVE SELECTION STATUS 1) ALTERNATIVE CHOSEN & WHY - No changes recommended during this 10 year planning period. 2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON - Waste Reduction - no measurable impact expected. Reuse - no measurable impact on expected. Materials Recovery - no measurable impact on expected. Participation in Recovery Opportunities - no measurable impact on expected. Product Stewardship - no measurable impact expected. Economic, administrative or partnership benefits - no measurable impact expected. 3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient. 4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time.

5.5.h EDUCATION AND OUTREACH	SUMMARY OF STATUS & RECOMMENDATION ▸ Continue educational and outreach efforts in cooperation with local community agencies including Suffolk County and locally centered community groups, including schools. ▸ Maintain budget levels for informational media, radio air time, print advertisements, video, and website maintenance. ▸ HAZARDOUS PRODUCTS - Continue encouragement to reduce use of hazardous products through disposal during STOP days will result in cleaner MSW that is safer to manage. ▸ GLASS REDUCTION - Reduce the volume of glass in the MSW stream through promotion of bottle redemption and recycling. Glass removal from MSW will result in less glass in finished compost product. Glass is the single greatest contaminant of concern in compost products. ▸ FILM PLASTICS - Encourage agricultural practices that minimize use of film plastic which are difficult to recover, and encourage residential reuse of consumer-owned bags that have more direct marketing agreements.

CRITERIA OF EVALUATION 1) ADMINISTRATIVE/TECHNICAL IMPACTS 1i) Waste Stream Impact - Quantitative/Qualitative - Continuation of current educational and outreach efforts are expected to aid in maintaining waste diversion performance. 1ii) Appropriate Type & Size of Facilities or Program - No new infrastructure is required. 1iii) Cost & Lifecycle Analysis - No cost impacts. 1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - No impacts are anticipated. 2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD 2i) Assessment of Participation Interest Potential by Neighboring Planning Units - public education and outreach information sharing with neighboring Planning Units, as requested, is to ensure thorough understanding and management of solid waste movement within and across communities. 2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units. 2iii) Comments Received by Neighboring Planning Units - none at this time. 2iv) Assessment of Environmental Justice Within the Town of Riverhead - there is no known or expected environmental justice impact within the Town associated with these activities.	ALTERNATIVE SELECTION STATUS 1) ALTERNATIVE CHOSEN & WHY - see above 2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON - Waste Reduction - actions expected to reduce waste volumes by <5% Reuse - actions expected to enhance reuse <5% Materials Recovery - actions expected to enhance waste reuse <5% Participation in Recovery Opportunities - actions expected to enhance participation <5% Product Stewardship - no measurable impact on product stewardship expected Economic, administrative or partnership benefits - actions expected to reduce direct expenses by <5%. 3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing and proposed waste reduction activities. 4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time.

5.5.i

DATA COLLECTION AND EVALUATION EFFORTS

SUMMARY OF STATUS & RECOMMENDATION

- Continue current data collection of materials managed through the Town's curbside pickup program.
- Collect supplemental material management data from private waste haulers through the Town's Sanitation permit system.
- Conduct quarterly and annual data reviews to verify data quality and completeness.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative – Quarterly and annual data reviews will create additional work load on administrative staff. Work load is expected to be moderate for quarterly and annual reviews consistent with state reporting requirements.

1ii) Appropriate Type & Size of Facilities or Program - No additional software anticipated beyond existing database systems.

1iii) Cost & Lifecycle Analysis - Cost will include administrative labor for database management.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - No impact on natural resources, energy production, and jobs is anticipated.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - data information sharing with neighboring planning units, as requested, is to ensure thorough understanding and management of solid waste movement.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - there is no known or expected environmental justice impacts within the Town associated with these activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -

Waste Reduction - actions expected to reduce waste volumes by <5%
Reuse - actions expected to enhance reuse <5%
Materials Recovery - actions expected to enhance waste reuse <5%
Participation in Recovery Opportunities - actions expected to enhance participation <5%
Product Stewardship - no measurable impact on product stewardship expected
Economic, administrative or partnership benefits - actions expected to reduce direct expenses by <5%

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations are identified as necessary at this time.

5.5.j LOCAL HAULER LICENSING PROGRAMS, INCLUDING AN ASSESSMENT OF LAWS PREVENTING COMMINGLING OF RECYCLABLES WITH WASTE	SUMMARY OF STATUS & RECOMMENDATION ▸ Continuation of Sanitation permit system for private waste haulers. ▸ Continue support of existing local laws and Sanitation permit systems. ▸ Town Code 273-8 prohibits curbside disposal of recyclables commingled with waste (Appendix K). ▸ Town Code 273-4 establishes a Solid Waste Collection and Disposal District consisting of six contract bid areas for the collection of all residential solid waste within the district (Appendix L).

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative - The most significant administrative impact will be realization of the Town's solid waste-recyclable commingling prohibition (Town Code 273-8). Enforcement against illegal dumping within the Town of Riverhead will be enhanced with the continuation of a permit program for private haulers and enforcement of the permit program and local laws.

1ii) Appropriate Type & Size of Facilities or Program - No new infrastructure is required.

1iii) Cost & Lifecycle Analysis - No cost impacts anticipated with retaining existing cost structure.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - No impacts are anticipated.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - potential for participation by neighboring Planning Units is not under review at this time.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - no negative impact anticipated from proposed activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -

Waste Reduction - actions expected to reduce waste volumes by <5%

Reuse - actions expected to enhance reuse <5%

Materials Recovery - actions expected to enhance waste reuse <5%

Participation in Recovery Opportunities - actions expected to enhance participation <5%

Product Stewardship - no measurable impact on product stewardship expected

Economic, administrative or partnership benefits - actions expected to reduce direct expenses by <5%.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations are identified as necessary at this time.

5.5.k FLOW CONTROL AND DISTRICTING POTENTIAL	SUMMARY OF STATUS & RECOMMENDATION ▸ Flow control is a legal designation for directing solid waste and/or recyclables to a specified facility or facilities as designated by the Planning Unit. The Towns curbside pickup program does not direct the contracted carter where to dispose of the solid waste and recyclables. Flow Control is not part of the DLSWMP. ▸ Waste districting is part of the Town of Riverhead's LMSWMP. The Town is divided into six Sanitation Districts, A-F.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative – The Town of Riverhead's solid waste program projected MSW disposal rate for 2020 is 5.23 lbs/capita/day, which is greater than the State's "Beyond Waste" target of 1.7 lbs/capita/day for 2020. There are no known or expected impacts within the Town of Riverhead associated with not implementing flow control at this time. There are no known or expected impacts within the Town of Riverhead associated with continuing to operate districts at this time.

1ii) Appropriate Type & Size of Facilities or Program - There are no known or expected impacts to natural resource conservation, energy production, and jobs within the Town of Riverhead that are associated with not implementing flow control, or by continuing to operate Sanitation Districts A-F at this time

1iii) Cost & Lifecycle Analysis - there are no known or expected impacts within the Town of Riverhead associated with not implementing flow control, or by continuing to operate Sanitation Districts A-F at this time.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - there are no known or expected impacts within the Town of Riverhead associated with not implementing flow control, or by continuing to operate Sanitation Districts A-F at this time.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - activities are not dependent upon participation of other Planning Units.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - there is no known or expected environmental justice impact within the Town associated with not implementing flow control, or by continuing to operate Sanitation Districts A-F at this time.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -

Waste Reduction - not applicable at this time.

Reuse - not applicable at this time.

Materials Recovery - not applicable at this time.

Participation in Recovery Opportunities - not applicable at this time.

Product Stewardship - not applicable at this time.

Economic, administrative or partnership benefits -not applicable at this time.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing and proposed waste reduction activities.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - existing local laws, ordinances, and regulations are sufficient at this time.

5.5.l C&D CONSTRUCTION AND DEMOLITION DEBRIS REDUCTION, INCLUDING DECONSTRUCTION, REUSE AND RECOVERY PROGRAMS	SUMMARY OF STATUS & RECOMMENDATION ▸ C&D reuse is encouraged of private carters by the Town. Deconstruction involves disassembly of a structure manually to salvage the maximum economic and environmental value of materials through reuse and recycling. Homes and other structures can be deconstructed partially or completely, resulting in tax benefits to the donor. Deconstruction will be promoted at the permit department when a resident applies for a building permit. ▸ The Town disposes of its C&D debris with a local vendor that recycles and sells the debris.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative - Continued recycling of C&D debris by private carters and the Town will have no impact on the waste stream. Deconstruction of homes will save valuable building materials and save rich architectural history.

1ii) Appropriate Type & Size of Facilities or Program - Existing infrastructure is sufficient at this time with no changes recommended or anticipated.

1iii) Cost & Lifecycle Analysis - Continuation of the dedicated Sanitation Tax funding stream is fully anticipated to provide sufficient funding for program costs.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs – Reuse of C&D debris by the private sector and the Town will have positive impacts on natural resource conservation, energy production, and jobs. Deconstruction of homes will save valuable building materials and save rich architectural history.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - potential for participation by neighboring Planning Units is not under review at this time.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - no negative impact anticipated from proposed activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -

Waste Reduction - actions expected to reduce waste volumes by approximately5%

Reuse - actions expected to enhance reuse by approximately 5%

Materials Recovery - actions expected to enhance waste reuse by approximately 5%

Participation in Recovery Opportunities - actions expected to enhance participation by approximately 5%

Product Stewardship - no measurable impact on product stewardship expected

Economic, administrative or partnership benefits - actions expected to reduce direct expenses by approximately 5%.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing and proposed waste reduction activities.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time.

5.5.m PRIVATE SECTOR MANAGEMENT & COORDINATION OPPORTUNITIES	SUMMARY OF STATUS & RECOMMENDATION ▸ The Town's intent for solid waste is to provide locally owned and operated infrastructure through curbside pickup by locally contracted carters. Private sector management and coordination opportunities will continue to center around support of reuse opportunities and C&D deconstruction.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative – The Town will continue to pick up and dispose of residential C&D debris by a private contracted carter. C&D debris from Town work or facilities will continued to be disposed of at Crown Recycling for reuse. Residential storm debris is accommodated by the curbside pickup program. Town generated storm debris is picked up and disposed of by the Sanitation and Highway Departments at their respective yard waste facilities.

1ii) Appropriate Type & Size of Facilities or Program - Existing infrastructure is sufficient at this time with no changes recommended or anticipated.

1iii) Cost & Lifecycle Analysis - Continuation of the dedicated Sanitation tax funding stream is fully anticipated to provide sufficient funding for program costs.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - Utilization of the residential curbside pickup program with storm debris pickup and disposal for Town properties by Highway and Sanitation will have positive impacts on natural resource conservation, energy production, and jobs.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - potential for participation by neighboring Planning Units is not under review at this time.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - no negative impact anticipated from proposed activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -

Waste Reduction - actions expected to reduce waste volumes by <5%

Reuse - actions expected to enhance reuse <5% from current levels.

Materials Recovery - actions expected to enhance waste reuse <5% from current levels.

Participation in Recovery Opportunities - actions expected to enhance participation <5%.

Product Stewardship - no measurable impact on product stewardship expected.

Economic, Administrative or Partnership Benefits - Actions believed to provide economic benefits associated with cost control for long term reliable solid waste management services available to Town of Riverhead residents.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing activities.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time.

5.5.n MANAGEMENT OF WASTE THROUGH THERMAL TREATMENT TECHNOLOGIES	SUMMARY OF STATUS & RECOMMENDATION ▸ Household pharmaceuticals collected by Riverhead Police Department and during the semi-annual STOP Day drop off event are managed thru incineration. ▸ MSW from the Town of Brookhaven's transfer station is incinerated by Covanta in Babylon. The ashes are landfilled by the Town of Brookhaven at its ash landfill facility. This facility is planned for closure during 2024. ▸ MSW ash will be trucked to off-Island locations which will significantly increase Sanitation Taxes.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative - Continued thermal destruction of HH pharmaceuticals and hazardous waste. Cessation of MSW at Brookhaven's ash landfill in 2024.

1ii) Appropriate Type & Size of Facilities or Program - Existing infrastructure is sufficient at this time with no changes recommended or anticipated. Off-Island trucking of MSW ash will be required when the ash landfill closes in 2024. More space for landfilling the MSW ash is needed to avoid spending increased costs for trucking.

1iii) Cost & Lifecycle Analysis - Continuation of the dedicated Sanitation tax funding stream is fully anticipated to be increase significantly in 2024 to pay for off-Island trucking of MSW ash for disposal.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs - There are no known or expected impacts to natural resource conservation, energy production, and jobs within the Town of Riverhead that are associated with not utilizing renewal fuel. Incinerating HH pharmaceuticals and hazardous waste is believed to have positive impacts on natural resource conservation, energy production, and jobs. Although jobs will be lost when the ash landfill closes, substantially more jobs will be created due to trucking MSW ash off-Island. Closing the ash landfill will conserve natural resources by significantly reducing emissions from the landfill. However, emissions will also be increased substantially due to the number of trucks needed to remove MSW ash from Long Island.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - potential for participation by neighboring Planning Units is not under review at this time.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - activities are not dependent upon participation of other Planning Units.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - The increase in truck emissions will represent a negative impact from the proposed activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -

Waste Reduction - actions expected to reduce ash waste volumes landfilled by 100%. MSW reduction expected to be <5% from thermal incineration as the ash volume will vary based on MSW input to the Covanta incinerator in Babylon.

Reuse - actions expected to enhance reuse <5% from current levels.

Materials Recovery - actions expected to enhance waste reuse <5% from current levels.

Participation in Recovery Opportunities - actions expected to enhance participation <5%.

Product Stewardship - no measurable impact on product stewardship expected.

Economic, Administrative or Partnership Benefits - actions expected to increase direct expenses by 100%.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing activities.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time.

5.5.o WASTE DISPOSAL OPTIONS	SUMMARY OF STATUS & RECOMMENDATION ▸ Pursue glass disposal and recycling options. ▸ Retain Town curbside pickup program including solid waste disposal, recycling and yard waste disposal. ▸ Form an intermunicipal agreement with local towns to stabilize rising costs of MSW recycling. ▸ After 2024 MSW will continue to be disposed of by the Town's carter at one of the Long Island Waste to Energy Facilities. ▸ Off-Island trucking will be required to haul the ash from MSW incinerators to a licensed disposal facility.

CRITERIA OF EVALUATION

1) ADMINISTRATIVE/TECHNICAL IMPACTS

1i) Waste Stream Impact - Quantitative/Qualitative - The Town of Riverhead's solid waste program MSW disposal rate in 2020 is 5.23 lbs/capita/day which is greater than the State's "Beyond Waste" target of 1.7 lbs/capita/day for 2020. The Highway Department will continue to operate and maintain the Town owned composting facility. Operations include ongoing maintenance and capital repairs to retain facility capacity and reliability as well as storm debris management. The Sanitation Department will continue to maintain equipment and site capacity for woody debris grinding and chipping and for trommeling leaves at the Town owned yard waste facility. MSW will be disposed of by the Towns carter at Covanta Babylon Waste to Energy disposal facility. Beginning in 2024, ashes from MSW disposal at Covanta Babylon will be trucked off-Island. The Town will endeavor to develop an IMA with nearby municipalities to stabilize recycling prices.

.1ii) Appropriate Type & Size of Facilities or Program - Compost facility already exists in support of processing and giving away compost to the public. Long Island Waste to Energy facilities are located on Long Island and currently service many municipalities. Sanitation fleets are readily available to truck MSW ash off-Island for disposal at a licensed facility.

1iii) Cost & Lifecycle Analysis - The Town's composting and yard waste facilities have been operational for over 15 years and is not expected to measurably impact cost to consumers. Facility maintenance and capital replacements are minimal. Recycling costs are expected to rise but stabilize due to an IMA with the Islip recycling facility. Trucking costs are expected to increase Sanitation taxes significantly for hauling and off-Island disposal of MSW ash.

1iv) Impact to Natural Resource Conservation, Energy Production, and Jobs – Yard waste management and composting is generally expected to provide for natural resource conservation. Measurable energy production is <5%. Jobs that currently exist in the operation of the yard waste and compost facilities are expected to remain constant during the 10 year planning window. Jobs due to required trucking are expected to increase markedly. Jobs at the Brookhaven Landfill will be eliminated. The IMA should not affect the Sanitation industry as a whole. Energy production will remain the same during the planning period.

2) JURISDICTIONAL IMPACTS ON NEIGHBORING PLANNING UNITS, AND ENVIRONMENTAL JUSTICE WITHIN THE TOWN OF RIVERHEAD

2i) Assessment of Participation Interest Potential by Neighboring Planning Units - potential for participation by neighboring Planning Units is not yet under review at this time.

2ii) Assessment of Alternatives That Might be Available if Other Planning Units Participate - IMA with other local Towns and the Islip Recycling Facility will serve to stabilize recycling costs.

2iii) Comments Received by Neighboring Planning Units - none at this time.

2iv) Assessment of Environmental Justice Within the Town of Riverhead - no negative impact anticipated from proposed activities.

ALTERNATIVE SELECTION STATUS

1) ALTERNATIVE CHOSEN & WHY - see above

2) EXPECTED QUANTITATIVE & QUALITATIVE IMPACTS ON -

Waste Reduction - actions expected to reduce waste volumes by <5%

Reuse - actions expected to enhance reuse <5% from current levels.

Materials Recovery - actions expected to enhance waste reuse <5% from current levels.

Participation in Recovery Opportunities - actions expected to enhance participation <5%.

Product Stewardship - With the closure of the Brookhaven ash landfill, product stewardship will be critical in helping to reduce MSW loading on the local incinerators and subsequently less ash to dispose of.

Economic, Administrative or Partnership Benefits - Actions believed to provide economic benefits associated with cost control for long term reliable solid waste management services available to Town of Riverhead residents.

3) IDENTIFICATION OF ADMINISTRATIVE, CONTRACTUAL, AND FINANCIAL REQUIREMENTS FOR IMPLEMENTATION - existing administrative, contractual, and financial structure is sufficient to support ongoing and proposed activities. Development of the IMA with other local municipalities will be facilitated by the Town Attorney's Office.

4) IDENTIFICATION OF NEW OR MODIFICATION TO LOCAL LAWS, ORDINANCES OR REGULATIONS TO IMPLEMENT PROGRAMS - no new local laws, ordinances, or regulations identified as necessary at this time.

CHAPTER 6 - IMPLEMENTATION SCHEDULE

6.1 Town of Riverhead Solid Waste Management Intent

According to Town Code 273-2 Purpose; findings; construal of provisions.

The purpose of this chapter is to protect and promote the health, safety and welfare of the residents of the Town of Riverhead by controlling the storage and disposal of solid waste generated within the Town in the most economical and environmentally acceptable manner; provide for the orderly collection of solid waste; implement the Town of Riverhead Solid Waste Management Plan; comply with the requirements and further the purposes of the New York State Solid Waste Management Act; and to protect the drinking water supply in the Town of Riverhead. In addition, the Town Board finds that increased efforts to recover and reuse recyclable materials will protect and enhance the Town's physical environment and promote the health and safety of persons and property within the Town. The provisions set forth herein seek not only to facilitate the implementation and operation of an environmentally sound solid waste management program and conservation of natural resources but to promote the recovery of materials from the Town's solid waste stream for the purpose of recycling such materials by source separation. Accordingly, the Town Board finds it is necessary to expand the Town's recycling program to provide opportunities for nonresidential, commercial, industrial and institutional establishments to recycle. Nothing herein is intended or should be construed to modify or amend any terms or conditions of any contracts for solid waste services to which the Town of Riverhead is a party in effect on the effective date of this chapter. Refer to Appendix M for Town Code 273-2.

It is important to note that the Town's intent is a continuation and expansion of the fundamental solid waste program goals articulated in earlier versions of the local solid waste management plan. As a "living document" the Town of Riverhead Solid Waste Management Plan - Update 2020-2029 is written to continue the work of the solid waste program, and it is not intended to replace previously stated goals.

The Implementation Schedule may be found in Appendix N.

CHAPTER 7 - WASTE STREAM PROJECTIONS - NYSDEC Waste Calculator 10yr Projections

Itemized waste generation tonnages and diversion levels have been calculated for MSW using NYSDEC waste calculators. Based upon these calculators, the Planning Unit's population projections for the 10 year planning period show a rapid and steady population increase, annual waste generation tonnages are increasing by 15% during the planning period, and annual diversion rates increase by an estimated 5% annually. MSW diversion rate is estimated to rise to 36% diversion rate by 2029. C&D diversion rate is estimated to rise to 99.2% by 2029, which reflects home construction and renovation projects. Below is the complete set of output tables for waste projections.

Utilizing the NYSDEC waste calculators to generate estimates, the solid waste quantity projections are expected to keep pace with population and waste generation per capita values for the nation. Changes in solid waste characteristics are also expected to match nationwide trends, including the increased light weighting of products and packaging associated with packaging innovations. Conversely, there are expected increases in the quantity and volume of consumer products within the waste stream, both as household trash and as construction & demolition debris. Increased recycling opportunities are expected to keep pace with market growth surrounding product stewardship legislation.

Projected solid waste quantities, based upon historic tonnages and making a small increase for population changes provides a ten year planning period estimate of approximately 43,741 total tons per year for all wastes and recyclables combined. This tonnage estimate identifies an increase in total weight (15%) which reflects the increasing demographics of the Town. Per capita generation rates are reduced by 4.5% due to education among other positive measures.

7.1 MSW Waste Projection Tables

MSW Waste Projection Tables may be viewed in Appendix A.

7.2 C&D Waste Projection Tables

Because of the small population of the Town of Riverhead, all C&D debris from residents is picked up by the Town's contracted carter and disposed of off-site at a permitted facility. C&D waste from Town facilities is collected by the Department of Sanitation and disposed of at a permitted off-sited facility. Therefore, the Town has not completed C&D Waste Projection Tables consistent with discussions with the DEC Main Office in Albany.

CHAPTER 8 -PUBLIC COMMENT OPPORTUNITIES

8.1 Public Input Opportunities

The Town encourages comment on the DLSWMP and a 45 day comment period will be initiated with the publication of this document.

8.1.1 Internet Access

The DLSWMP will be posted on the internet for viewing upon publication for public comment. The website address is: www.townofriverheadny.gov.

8.1.2. Public Notification

A notice referencing the Town's website and the DLSWMP posting will be forwarded to the Town Board, local solid waste haulers and NYSDEC officials. Additionally, a legal notice will be posted in area newspapers indicating the DLSWMP may be viewed through our website and that hard copies are available upon request.

8.1.3. Time Period for Public Comment

A 45 day comment period will be initiated with the publication of this document, anticipated in late spring 2021. Comments received from the public will be addressed in the Final LSWMP.

APPENDIX

APPENDIX A - MSW Waste Projection Tables

APPENDIX B - Town of Riverhead 2020 Recycling Calendar and MSW Flyer

APPENDIX C - Commercial Private Waste Disposal License Application

APPENDIX D - European American Award For All Six Residential Solid Waste CBAs For A Period Of Five Years From January 1, 2018 Through December 31, 2022 - Resolution #594

APPENDIX E - Suffolk Recycles Flyer

APPENDIX F - Site Plan, Young's Avenue Landfill

APPENDIX G - Yard Waste Facility Layout

APPENDIX H - Compost Facility Layout

APPENDIX I - Town of Riverhead 2020 STOP Days Flyer

APPENDIX J - Costs for Town of Riverhead Municipal Solid Waste Program

APPENDIX K - Source Separation of Recyclable Materials - Town Code 273-8

APPENDIX L - Establishment of District – Town Code 273-4

APPENDIX M - Town of Riverhead Solid Waste Management Intent - Town Code 273-2

APPENDIX N - Implementation Schedule

APPENDIX A – MSW Waste Projection Tables

Step 1. Planning Unit and Plan Period Selection

Please, select from the drop-down list the name of your **planning unit** and the **planning period** of your **LSWMP**. Be aware that a LSWMP must be developed for a **10-year period**, and that your selection will be replicated on each one of the following tabs.

Planning Unit	Town of Riverhead
Planning Period	2020-2029

Step 2. Waste Generation Rate

In order to project how the amount of waste generated in the planning unit will change over time, data regarding the current amount of waste generated by the planning unit is needed. This can be the total tons of waste generated by the planning unit in the current year **(Tons/yr)**, or this can be the estimated daily quantity of waste generated per person in the planning unit **(lb/person/day).** If both the total annual generation and the estimated generation rate per person are unknown, the state average for MSW generation rate can be used along with the planning unit's population to estimate the total amount of waste generated in the planning unit.

For this step, select **one** of the options that describes the known information about the planning unit. Enter the waste generated in Tons (MSW disposed & Recycled Materials) or the waste generation rate in lb/person/day) in the purple cell. If no data on the waste generated in the planning unit is available, choose the corresponding option from the list. The calculator will estimate the total amount of waste generated based on the state's average generation rate and the planning unit's population.

Town of Riverhead

The amount of waste generated (by all residents, institutions, etc.) in the planning unit will be based on what is known. If the MSW generation amount and the generation rate are unknown, the state average for MSW generation rate will be used.

(●) I know the amount of MSW generated (Tons/year):	Enter tons disposed here:	29,194.07
( ) The planning unit Average MSW Generation Rate (lb/person/day) is:		
( ) The amount of MSW Generated and the planning unit Average MSW Generation Rate are unknown.	Enter tons diverted here:	8,824.92

Step 3. Planning Unit Population - Projections & Municipal Solid Waste (MSW) - Projections

This tab will provide you with population projections and MSW generation projections for the planning period you had previously selected. It is recognized that Municipal Solid Waste (MSW) generation is reliant on population changes, hence, it is necessary to project both and identify their correlation.

In the first purple cell enter the total tons of MSW that was disposed in the year immediately before your plan period starts. For example: If the plan period is 2016-2026, the MSW disposed data should be from 2015.

Population Projection:

Calculations are determined by a linear regression based on the latest **census population data** and an **annual growth rate percentage** specific to the planning unit. If it is anticipated that the population is going to decrease overtime, the minus sign (-) will be used.

MSW Generation Projection:

The MSW generation rate (Lb/person/day) calculated on the previous tab from the **Waste Generation Rate** will serve as a start point for the planning period. On the calculator, three options are considered to anticipate the MSW generation over time, and one must be selected according to the goals of the planning unit:

First Option:

MSW generation **rate** does not change. Consequently, MSW generation fluctuates with the population of the planning unit. If the population increases, waste generation will rise as well, and vice versa.
By selecting this option, the planning unit is in **"status quo"**, meaning that is not making any improvements, and consequently is getting far from reaching the State's goal by 2030.

Second Option:

MSW generation **amount** remains the same, regardless of whether or not the planning unit's population changes.

Third Option:

As a result of successfully implementing the Local Solid Waste Management Plan, MSW generation will be reduced by an annual factor of …

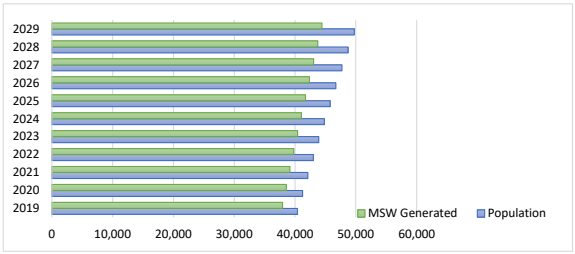
An **Annual Factor of Reduction (%)** should be calculated, defined, and selected by the planning unit. This factor will be the numerical representation of one of the planning unit's **goals** for the planning period. Once calculated, the Annual Factor of Reduction can be chosen from the drop down list provided.

Note:

• The graphic will display the Population and MSW Generation projections over the selected planning period. It has been designed to visualize the contrast of the final outcomes, based on the selections of each planning unit

Town of Riverhead 2020-2029

Current Data	
2010 Population Census	33,506
2019 Population	40,397
2019 MSW Generated (Tons/yr)	38,019
2019 MSW generation rate (Lb/person/day)	3.96
2019 MSW Disposed (Tons/yr)	29,194
2019 MSW Diverted (Tons/yr)	8,825



Annual rate of population growth (%)	2.10%

Population Projection

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
40,397	41,246	42,112	42,996	43,899	44,821	45,762	46,723	47,705	48,706	49,729

Forecasting future conditions... What do you expect to happen to the MSW generation rate over the next 10 year period plan?

- ○ MSW generation rate does not change. Consequently, MSW generation fluctuates with the population of the planning unit, if the population increases, waste generation will rise as well, and vice versa.
- ○ MSW generation amount remains the same, regardless of whether or not the planning unit's population fluctuates.
- ◉ As a result of successfully implementing the Local Solid Waste Management Plan, MSW generation will be reduced by an annual factor of ...

Reduction Factor (per year)	0.5%

MSW generation rate (Lb/person/day)	5.15

MSW Generation Projection

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
5.15	5.12	5.10	5.07	5.05	5.02	5.00	4.97	4.95	4.92	4.90	(Lb/person/day)
37,953	38,557	39,170	39,792	40,425	41,067	41,720	42,383	43,057	43,741	44,436	Tons/yr

Step 5. Municipal Solid Waste (MSW) Detailed Composition Analysis

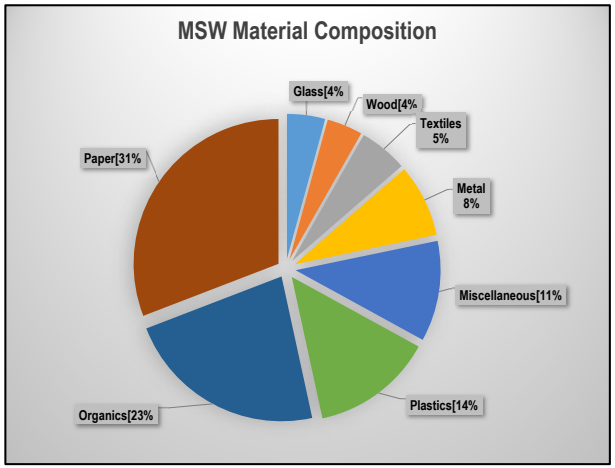
On this tab, the composition of the municipal waste stream will be estimated based on the amount of material generated in the planning unit and the state average of the different waste materials. A pie chart will be generated to clearly show the composition of the waste stream and to identify key categories of the waste stream for the planning unit.

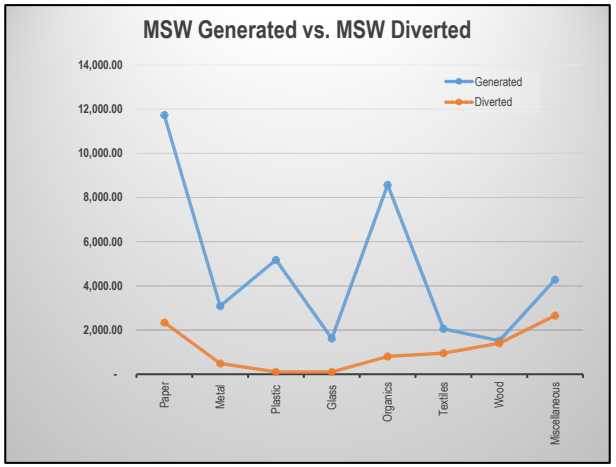
The total tons of MSW diverted per year will be auto populated based on previous data inputs, while the amount tons diverted for each material by category should be populated by the user. Purple cells should be used for amounts of diverted waste by type of material, and a totaled number by category (e.g. paper, metal) should be put in the green cells. After inputting the data, a graphic will be generated to show the MSW generation and diversion streams in Tons.

Make sure that the total amounts at the bottom of the page are consistent with the data you already put into the calculator. If the cell is highlighted in red, you should revise the amounts of diverted waste by category.

Town of Riverhead **2020-2029**

		2019		
		MSW Materials Composition (%)	MSW Generated (Tons)	MSW Diverted (Tons)
	Material	100.0%	38,019	8,824.92
Paper	Newspaper	3.6%	1,386	940.00
	Corrugated Cardboard	9.8%	3,742	837.00
	Other Recyclable Paper (Total)	10.9%	4,137	140.60
	Other Compostable Paper	6.5%	2,464	420.00
	Total Paper	30.9%	11,729	2,337.60
Metal	Ferrous/Aluminum Containers (Total)	1.6%	597	200.00
	Other Ferrous Metals	5.3%	2,032	200.00
	Other Non-Ferrous Metals (Total)	1.2%	453	86.00
	Total Metals	8.1%	3,082	486.00
Plastic	PET Containers	0.9%	334	10.00
	HDPE Containers	0.8%	314	10.00
	Other Plastic (3-7) Containers	0.2%	73	10.00
	Film Plastic	5.7%	2,154	10.00
	Other Plastic (Total)	6.1%	2,302	60.00
	Total Plastics	13.6%	5,177	100.00
Glass	Glass Bottles, Jars and Containers	3.9%	1,475	50.00
	Other Glass (Flat glass, dishware, light bulbs, etc.)	0.4%	140	50.47
	Total Glass	4.2%	1,614	100.47
Organics	Food Scraps	13.8%	5,264	418.00
	Leaves and Grass / Pruning and Trimmings	8.7%	3,308	382.85
	Total Organics	22.5%	8,572	800.85
Textiles	Clothing Footwear, Towels, Sheets	3.9%	1,473	500.00
	Carpet	1.5%	579	450.00
	Total Textiles	5.4%	2,052	950.00
Wood	*Total Wood* (Pallets, crates, adulterated and non-adulterated wood)	4.0%	1,514	1,400.00
Miscellaneous	DIY Construction & Renovation Materials	4.2%	1,601	1,200.00
	Diapers	1.7%	634	400.00
	Electronics	1.6%	602	300.00
	Tires	1.6%	613	300.00
	HHW	0.3%	127	100.00
	Soils and Fines	0.2%	90	50.00
	Other Composite Materials - Durable and/or inert	1.6%	611	300.00
	Total Miscellaneous	11.3%	4,278	2,650.00
	Total	100.0%	38,019	8,824.92





Step 4. Municipal Solid Waste (MSW) Detailed Composition Analysis

The next step is to *Identify the Materials Composition of the Waste Stream* based on population density, and demographic characteristics of the Planning Unit.
This tab will provide the PU with a more detailed estimate of the materials present in the waste stream, which could be crucial when prioritizing the initiatives and programs of the LSWMP.

The population density distribution has been calculated based on the 2010 Census data and will be auto populated when a planning unit is selected. The following parameters were used:

- Rural: <325 persons/mi^2
- Suburban: >325 and <5,000 persons/mi^2
- Urban: >5,000 persons/mi^2

Under **Density Population Distribution**, the user has the option to modify the percentage values for the **Sector** *(Residential and Commercial/Institutional)* based on land use and specific characteristics of each planning unit. For example: A rural population in Westchester County could be 64% Residential and 36% Commercial / Institutional, while in Wyoming County might be 50% Residential and 50% Commercial / Institutional.

The results are presented on the last right column under **MSW Materials Composition.** Be aware of color changes on the cells, whenever a category represents over 15% of the total waste generation, the cell will turn red to easily identify key categories of the waste stream. It will also facilitate the selection of initiatives, programs, and infrastructure for the solid waste management system.

Note: If no data exists, use the pre-populated information in the worksheet.

Town of Riverhead **2020-2029**

Material	Density Population Distribution		Rural			Suburban			Urban			MSW Materials Composition (%)
			19.99%			80.01%			0.00%			
			Residential	Comm/Inst.	Combined	Residential	Comm/Inst.	Combined	Residential	Comm/Inst.	Combined	
			58.00%	42.00%	100.00%	55.00%	45.00%	100.00%	58.00%	42.00%	100.00%	100.00%
	Newspaper		5.20%	1.90%	3.81%	5.00%	1.90%	3.61%	6.60%	2.00%	4.67%	3.65%
	Corrugated Cardboard		6.60%	13.90%	9.67%	6.60%	13.90%	9.89%	6.90%	13.70%	9.76%	9.84%
	Other Recyclable Paper	Paperboard	3.20%	1.10%	2.32%	3.30%	1.00%	2.27%	3.60%	0.90%	2.47%	2.28%
		Office Paper	0.80%	3.80%	2.06%	0.90%	4.20%	2.39%	1.10%	5.80%	3.07%	2.32%
		Junk Mail	3.00%	0.70%	2.03%	3.20%	0.70%	2.08%	3.50%	0.70%	2.32%	2.07%
		Other Commercial Printing	1.70%	2.30%	1.95%	1.70%	2.40%	2.02%	2.30%	2.60%	2.43%	2.00%
		Magazines	1.10%	0.90%	1.02%	1.00%	0.80%	0.91%	1.10%	1.00%	1.06%	0.93%
		Books	0.50%	0.30%	0.42%	0.50%	0.30%	0.41%	0.60%	0.40%	0.52%	0.41%
		Paper Bags	0.50%	0.20%	0.37%	0.50%	0.20%	0.37%	0.60%	0.20%	0.43%	0.37%
		Phone Books	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.20%	0.26%	0.30%
		Poly-Coated	0.20%	0.30%	0.24%	0.20%	0.20%	0.20%	0.30%	0.20%	0.26%	0.21%
	Other Recyclable Paper (Total)		11.30%	9.90%	10.71%	11.60%	10.10%	10.93%	13.40%	12.00%	12.81%	10.88%
	Other Compostable Paper		6.80%	6.80%	6.80%	6.40%	6.40%	6.40%	6.80%	6.80%	6.80%	6.48%
	Total Paper		***29.90%***	***32.50%***	***30.99%***	***29.60%***	***32.30%***	***30.82%***	***33.70%***	***34.50%***	***34.04%***	***30.85%***
	Ferrous/Aluminum Containers	Ferrous Containers	1.90%	1.00%	1.52%	1.20%	0.70%	0.98%	1.40%	0.70%	1.11%	1.08%
		Aluminum Containers	0.70%	0.40%	0.57%	0.60%	0.30%	0.47%	0.50%	0.40%	0.46%	0.49%
	Ferrous/Aluminum Containers (Total)		2.60%	1.40%	2.10%	1.80%	1.00%	1.44%	1.90%	1.10%	1.56%	1.57%
	Other Ferrous Metals		5.20%	5.40%	5.28%	5.00%	5.80%	5.36%	3.30%	3.70%	3.47%	5.34%
	Other Non-Ferrous Metals	Other aluminum	0.20%	0.30%	0.24%	0.20%	0.30%	0.25%	0.20%	0.30%	0.24%	0.24%
		Automotive batteries	0.80%	0.50%	0.67%	0.70%	0.40%	0.57%	0.20%	0.20%	0.20%	0.59%
		Other non-aluminum	0.50%	0.30%	0.42%	0.30%	0.40%	0.35%	0.40%	0.20%	0.32%	0.36%
	Other Non-Ferrous Metals (Total)		1.50%	1.10%	1.33%	1.20%	1.10%	1.16%	0.80%	0.70%	0.76%	1.19%
	Total Metals		***9.30%***	***7.90%***	***8.71%***	***8.00%***	***7.90%***	***7.96%***	***6.00%***	***5.50%***	***5.79%***	***8.11%***
	PET Containers		1.10%	0.80%	0.97%	0.90%	0.80%	0.86%	1.20%	1.00%	1.12%	0.88%
	HDPE Containers		1.10%	0.60%	0.89%	0.90%	0.70%	0.81%	1.00%	0.70%	0.87%	0.83%
	Other Plastic (3-7) Containers		0.20%	0.10%	0.16%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.19%
	Film Plastic		5.70%	5.90%	5.78%	5.50%	5.80%	5.64%	5.80%	5.80%	5.80%	5.66%
	Other Plastic	Durables	3.10%	3.20%	3.14%	3.00%	3.20%	3.09%	3.20%	3.30%	3.24%	3.10%
		Non-Durables	1.60%	1.80%	1.68%	1.60%	1.80%	1.69%	1.80%	1.90%	1.84%	1.69%
		Packaging	1.40%	1.10%	1.27%	1.40%	1.10%	1.27%	1.50%	1.10%	1.33%	1.27%
	Other Plastic (Total)		6.10%	6.10%	6.10%	6.00%	6.10%	6.05%	6.50%	6.30%	6.42%	6.06%
	Total Plastics		***14.20%***	***13.50%***	***13.91%***	***13.50%***	***13.60%***	***13.55%***	***14.70%***	***14.00%***	***14.41%***	***13.62%***
	Glass Bottles, Jars and Containers		4.10%	3.80%	3.97%	3.90%	3.80%	3.86%	4.30%	3.80%	4.09%	3.88%
	Other Glass (Flat glass, dishware, light bulbs, etc.)		0.50%	0.40%	0.46%	0.30%	0.40%	0.35%	0.40%	0.40%	0.40%	0.37%
	Total Glass		***4.60%***	***4.20%***	***4.43%***	***4.20%***	***4.20%***	***4.20%***	***4.70%***	***4.20%***	***4.49%***	***4.25%***
	Food Scraps		12.70%	13.30%	12.95%	12.90%	15.50%	14.07%	17.20%	25.20%	20.56%	13.85%
	Leaves and Grass / Pruning and Trimmings		3.10%	1.10%	2.26%	11.30%	9.10%	10.31%	4.20%	1.50%	3.07%	8.70%
	Total Organics		***15.80%***	***14.40%***	***15.21%***	***24.20%***	***24.60%***	***24.38%***	***21.40%***	***26.70%***	***23.63%***	***22.55%***
	Clothing Footwear, Towels, Sheets		4.60%	3.00%	3.93%	4.40%	3.20%	3.86%	4.80%	2.50%	3.83%	3.87%
	Carpet		1.40%	1.30%	1.36%	1.70%	1.40%	1.57%	1.70%	0.90%	1.36%	1.52%
	Total Textiles		***6.00%***	***4.30%***	***5.29%***	***6.10%***	***4.60%***	***5.43%***	***6.50%***	***3.40%***	***5.20%***	***5.40%***
	Total Wood (Pallets, crates, adulterated and non-adulterated wood)		***4.10%***	***9.00%***	***6.16%***	***2.90%***	***4.10%***	***3.44%***	***2.00%***	***3.50%***	***2.63%***	***3.98%***
	DIY - Construction & Renovation Materials		8.00%	7.60%	7.83%	3.80%	2.70%	3.31%	4.40%	3.80%	4.15%	4.21%
	Diapers		1.90%	1.10%	1.56%	2.10%	1.20%	1.70%	2.30%	1.10%	1.80%	1.67%
	Electronics		1.30%	1.40%	1.34%	1.60%	1.70%	1.65%	1.30%	1.30%	1.30%	1.58%
	Tires		1.80%	1.80%	1.80%	1.70%	1.40%	1.57%	0.50%	0.40%	0.46%	1.61%
	HHW		0.60%	0.00%	0.35%	0.60%	0.00%	0.33%	0.50%	0.00%	0.29%	0.33%
	Soils and Fines		0.60%	0.60%	0.60%	0.10%	0.20%	0.15%	0.10%	0.10%	0.10%	0.24%
	Other Composite Materials - Durable and/or Inert		1.90%	1.70%	1.82%	1.60%	1.50%	1.56%	1.90%	1.50%	1.73%	1.61%
	Total Miscellaneous		***16.10%***	***14.20%***	***15.30%***	***11.50%***	***8.70%***	***10.24%***	***11.00%***	***8.20%***	***9.82%***	***11.25%***
	Total		***100.00%***	***100.00%***	***100.00%***	***100.00%***	***100.00%***	***100.00%***	***100.00%***	***100.00%***	***100.00%***	***100.00%***

Step 6. Municipal Solid Waste (MSW) Diversion Projections

This tab will be used to create goals for the amount of material the planning unit will divert for each year of the planning period. These goals will be e ntered as percentages, based on how much of the material generated will be diverted for recycling or beneficial use.

The diversion goal percentages will be entered in the purple cells for each material and each year of the planning period.

Town of Riverhead **2020-2029**

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Projected MSW Generation (Tons/yr)	37,953	38,557	39,170	39,792	40,425	41,067	41,720	42,383	43,057	43,741
MSW Diverted (Tons/yr)	9,779	10,323	10,881	11,471	12,095	12,754	13,452	14,190	14,970	15,800

			2019			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	Material	MSW Materials Composition (%)	MSW Generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted
		100.0%	38,019	8,825	23.2%	25.8%	26.8%	27.8%	28.8%	29.9%	31.1%	32.2%	33.5%	34.8%	36.1%
Paper	Newspaper	3.6%	1,386	940	67.8%	14.9%	15.7%	16.4%	17.3%	18.1%	19.0%	20.0%	21.0%	22.0%	23.1%
Paper	Corrugated Cardboard	9.8%	3,742	837	22.4%	12.3%	12.9%	13.5%	14.2%	14.9%	15.7%	16.5%	17.3%	18.2%	19.1%
Paper	Other Recyclable Paper (Total)	10.9%	4,137	141	3.4%	3.5%	3.6%	3.8%	4.0%	4.2%	4.4%	4.6%	4.9%	5.1%	5.4%
Paper	Other Compostable Paper	6.5%	2,464	420	17.0%	8.6%	9.0%	9.5%	10.0%	10.5%	11.0%	11.5%	12.1%	12.7%	13.4%
Paper	*Total Paper*	30.9%	11,729	2,338	19.9%	8.7%	9.1%	9.6%	10.1%	10.6%	11.1%	11.7%	12.3%	12.9%	13.5%
Metal	Ferrous/Aluminum Containers (Total)	1.6%	597	200	33.5%	34.5%	36.3%	38.1%	40.0%	42.0%	44.1%	46.3%	48.6%	51.0%	53.6%
Metal	Other Ferrous Metals	5.3%	2,032	200	9.8%	10.2%	10.7%	11.2%	11.8%	12.4%	13.0%	13.6%	14.3%	15.0%	15.8%
Metal	Other Non-Ferrous Metals (Total)	1.2%	453	86	19.0%	19.6%	20.6%	21.6%	22.7%	23.9%	25.1%	26.3%	27.6%	29.0%	30.5%
Metal	*Total Metals*	8.1%	3,082	486	15.8%	16.3%	17.1%	18.0%	18.9%	19.8%	20.8%	21.8%	22.9%	24.1%	25.3%
Plastic	PET Containers	0.9%	334	10	3.0%	3.0%	3.2%	3.4%	3.5%	3.7%	3.9%	4.1%	4.3%	4.5%	4.7%
Plastic	HDPE Containers	0.8%	314	10	3.2%	3.3%	3.4%	3.6%	3.8%	4.0%	4.2%	4.4%	4.6%	4.8%	5.0%
Plastic	Other Plastic (3-7) Containers	0.2%	73	10	13.7%	14.2%	14.9%	15.6%	16.4%	17.2%	18.1%	19.0%	19.9%	20.9%	22.0%
Plastic	Film Plastic	5.7%	2,154	10	0.5%	0.5%	0.6%	0.6%	0.6%	0.6%	0.7%	0.7%	0.7%	0.8%	0.8%
Plastic	Other Plastic (Total)	6.1%	2,302	60	2.6%	2.7%	2.9%	3.0%	3.2%	3.3%	3.5%	3.7%	3.8%	4.0%	4.2%
Plastic	*Total Plastics*	13.6%	5,177	100	1.9%	2.0%	2.1%	2.2%	2.3%	2.5%	2.6%	2.7%	2.9%	3.0%	3.1%
Glass	Glass Bottles, Jars and Containers	3.9%	1,475	50	3.4%	3.5%	3.6%	3.8%	4.0%	4.2%	4.4%	4.6%	4.9%	5.1%	5.4%
Glass	Other Glass (Flat glass, dishware, light bulbs, etc.)	0.4%	140	50	36.1%	37.3%	39.1%	41.1%	43.2%	45.3%	47.6%	50.0%	52.4%	55.1%	57.8%
Glass	*Total Glass*	4.2%	1,614	100	6.2%	6.4%	6.7%	7.0%	7.4%	7.8%	8.2%	8.6%	9.0%	9.4%	9.9%
Organics	Food Scraps	13.8%	5,264	418	7.9%	78.4%	80.4%	82.4%	84.5%	86.6%	88.7%	91.0%	93.2%	95.6%	98.0%
Organics	Leaves and Grass / Pruning and Trimmings	8.7%	3,308	383	11.6%	11.4%	12.0%	12.6%	13.2%	13.9%	14.6%	15.3%	16.1%	16.9%	17.8%
Organics	*Total Organics*	22.5%	8,572	801	9.3%	52.6%	54.0%	55.5%	57.0%	58.5%	60.1%	61.8%	63.5%	65.2%	67.0%
Textiles	Clothing Footwear, Towels, Sheets	3.9%	1,473	500	34.0%	40.6%	42.7%	44.8%	47.0%	49.4%	51.9%	54.5%	57.2%	60.0%	63.0%
Textiles	Carpet	1.5%	579	450	77.7%	46.8%	49.2%	51.6%	54.2%	56.9%	59.8%	62.8%	65.9%	69.2%	72.6%
Textiles	*Total Textiles*	5.4%	2,052	950	46.3%	42.4%	44.5%	46.7%	49.1%	51.5%	54.1%	56.8%	59.6%	62.6%	65.8%
Wood	*Total Wood* (Pallets, crates, adulterated and non-adulterated wood)	4.0%	1,514	1,400	92.4%	34.1%	35.8%	36.5%	37.3%	38.0%	38.8%	39.6%	40.4%	41.2%	43.2%
Miscellaneous	DIY Construction & Renovation Materials	4.2%	1,601	1,200	75.0%	64.6%	67.8%	71.2%	74.8%	78.5%	82.4%	86.5%	90.9%	95.4%	99.2%
Miscellaneous	Diapers	1.7%	634	400	63.0%	32.6%	34.2%	35.9%	37.7%	39.6%	41.5%	43.6%	45.8%	48.1%	50.5%
Miscellaneous	Electronics	1.6%	602	300	49.8%	34.3%	36.1%	37.9%	39.7%	41.7%	43.8%	46.0%	48.3%	50.7%	53.3%
Miscellaneous	Tires	1.6%	613	300	49.0%	33.7%	35.4%	37.2%	39.0%	41.0%	43.0%	45.2%	47.4%	49.8%	52.3%
Miscellaneous	HHW	0.3%	127	100	78.8%	40.7%	42.8%	44.9%	47.2%	49.5%	52.0%	54.6%	57.3%	60.2%	63.2%
Miscellaneous	Soils and Fines	0.2%	90	50	55.7%	57.5%	60.4%	63.4%	66.6%	69.9%	73.4%	77.1%	81.0%	85.0%	89.3%
Miscellaneous	Other Composite Materials - Durable and/or inert	1.6%	611	300	49.1%	67.6%	70.3%	73.1%	76.1%	79.1%	82.3%	85.6%	89.0%	92.5%	96.2%
Miscellaneous	*Total Miscellaneous*	11.3%	4,278	2,650	61.9%	50.7%	53.2%	55.7%	58.4%	61.2%	64.2%	67.3%	70.5%	73.9%	77.1%

Step 7. Municipal Solid Waste (MSW) Generation and Diversion - Detailed Projections

The final result of the Population and Municipal Composition Calculator is presented on the last tab. This tab contains data for the current year regarding waste generated and waste diverted from disposal. This tab also shows the projected waste diversion percentages, and the amount of waste in tons these percentages will divert for recycling. Total amounts of waste diverted will be calculated for each material and each year of the planning period.

Town of Riverhead 2020-2029

			MSW Materials Composition (%)	2019 MSW Generated (Tons)	2019 MSW Diverted (Tons)	2019 % MSW Diverted	2020 MSW generated (Tons)	2020 MSW Diverted	2020 % MSW Diverted	2021 MSW generated (Tons)	2021 MSW Diverted	2021 % MSW Diverted	2022 MSW generated (Tons)	2022 MSW Diverted	2022 % MSW Diverted	2023 MSW generated (Tons)	2023 MSW Diverted	2023 % MSW Diverted	2024 MSW generated (Tons)	2024 MSW Diverted	2024 % MSW Diverted	2025 MSW generated (Tons)	2025 MSW Diverted	2025 % MSW Diverted	2026 MSW generated (Tons)	2026 MSW Diverted	2026 % MSW Diverted	2027 MSW generated (Tons)	2027 MSW Diverted	2027 % MSW Diverted	2028 MSW generated (Tons)	2028 MSW Diverted	2028 % MSW Diverted	2029 MSW generated (Tons)	2029 MSW Diverted	2029 % MSW Diverted
	Material		**100.00%**	**38,019**	**8,825**	**23.2%**	**37,953**	**9,779**	**25.8%**	**38,557**	**10,323**	**27%**	**39,170**	**10,881**	**27.8%**	**39,792**	**11,471**	**28.8%**	**40,425**	**12,413**	**30.7%**	**41,067**	**12,754**	**31.1%**	**41,720**	**13,452**	**32.2%**	**42,383**	**14,190**	**33.5%**	**43,057**	**14,970**	**34.8%**	**43,741**	**15,800**	**36.1%**
Paper	**Newspaper**		**3.65%**	1,386	940	67.8%	1,384	206	14.9%	1,406	220	16%	1,428	235	16.4%	1,451	250	17.3%	1,474	267	18.1%	1,498	285	19.0%	1,521	304	20.0%	1,546	324	21.0%	1,570	346	22.0%	1,595	369	23.1%
	Corrugated Cardboard		**9.84%**	3,742	837	22.4%	3,735	459	12.3%	3,794	489	13%	3,855	522	13.5%	3,916	557	14.2%	3,978	594	14.9%	4,042	634	15.7%	4,106	676	16.5%	4,171	721	17.3%	4,237	769	18.2%	4,305	820	19.1%
	Other Recyclable Paper	Paperboard	**2.28%**	865	0	0.0%	864	0	0.0%	877	0	0%	891	0	0.0%	906	0	0.0%	920	0	0.0%	935	0	0.0%	949	0	0.0%	964	0	0.0%	980	0	0.0%	995	0	0.0%
		Office Paper	**2.32%**	882	0	0.0%	881	0	0.0%	895	0	0%	909	0	0.0%	923	0	0.0%	938	0	0.0%	953	0	0.0%	968	0	0.0%	983	0	0.0%	999	0	0.0%	1,015	0	0.0%
		Junk Mail	**2.07%**	786	0	0.0%	784	0	0.0%	797	0	0%	810	0	0.0%	822	0	0.0%	835	0	0.0%	849	0	0.0%	862	0	0.0%	876	0	0.0%	890	0	0.0%	904	0	0.0%
		Other Commercial Printing	**2.00%**	761	0	0.0%	760	0	0.0%	772	0	0%	784	0	0.0%	797	0	0.0%	809	0	0.0%	822	0	0.0%	835	0	0.0%	849	0	0.0%	862	0	0.0%	876	0	0.0%
		Magazines	**0.93%**	354	0	0.0%	353	0	0.0%	359	0	0%	365	0	0.0%	371	0	0.0%	376	0	0.0%	382	0	0.0%	388	0	0.0%	395	0	0.0%	401	0	0.0%	407	0	0.0%
		Books	**0.41%**	156	0	0.0%	156	0	0.0%	159	0	0%	161	0	0.0%	164	0	0.0%	166	0	0.0%	169	0	0.0%	172	0	0.0%	174	0	0.0%	177	0	0.0%	180	0	0.0%
		Paper Bags	**0.37%**	139	0	0.0%	139	0	0.0%	141	0	0%	144	0	0.0%	146	0	0.0%	148	0	0.0%	151	0	0.0%	153	0	0.0%	155	0	0.0%	158	0	0.0%	160	0	0.0%
		Phone Books	**0.30%**	114	0	0.0%	114	0	0.0%	116	0	0%	118	0	0.0%	119	0	0.0%	121	0	0.0%	123	0	0.0%	125	0	0.0%	127	0	0.0%	129	0	0.0%	131	0	0.0%
		Poly-Coated	**0.21%**	79	0	0.0%	79	0	0.0%	80	0	0%	82	0	0.0%	83	0	0.0%	84	0	0.0%	86	0	0.0%	87	0	0.0%	88	0	0.0%	90	0	0.0%	91	0	0.0%
	Other Recyclable Paper (Total)		**10.88%**	4,137	141	3.4%	4,130	143	3.5%	4,196	153	4%	4,263	163	3.8%	4,330	174	4.0%	4,399	185	4.2%	4,469	198	4.4%	4,540	211	4.6%	4,612	225	4.9%	4,686	240	5.1%	4,760	256	5.4%
	Other Compostable Paper		**6.48%**	2,464	420	17.0%	2,459	212	8.6%	2,498	226	9%	2,538	241	9.5%	2,579	257	10.0%	2,619	274	10.5%	2,661	292	11.0%	2,703	312	11.5%	2,746	333	12.1%	2,790	355	12.7%	2,834	379	13.4%
	Total Paper		**30.85%**	11,729	2,338	19.9%	11,709	1,020	8.7%	11,895	1,088	9%	12,084	1,161	9.6%	12,276	1,238	10.1%	12,471	1,321	10.6%	12,669	1,409	11.1%	12,871	1,503	11.7%	13,075	1,603	12.3%	13,283	1,710	12.9%	13,494	1,824	13.5%
Metal	Ferrous/Aluminum Containers	Ferrous Containers	**1.08%**	412	138	33.5%	412	98	23.8%	418	105	25%	425	112	26.3%	431	119	27.6%	438	127	29.0%	445	136	30.4%	452	145	32.0%	460	154	33.5%	467	164	35.2%	474	175	37.0%
		Aluminum Containers	**0.49%**	185	62	33.5%	185	20	10.7%	188	21	11%	191	22	11.8%	194	24	12.4%	197	26	13.0%	200	27	13.7%	203	29	14.3%	206	31	15.1%	210	33	15.8%	213	35	16.6%
	Ferrous/Aluminum Containers (Total)		**1.57%**	597	200	33.5%	596	206	34.5%	606	220	36%	615	234	38.1%	625	250	40.0%	635	267	42.0%	645	284	44.1%	655	303	46.3%	666	324	48.6%	676	345	51.0%	687	368	53.6%
	Other Ferrous Metals		**5.34%**	2,032	200	9.8%	2,029	207	10.2%	2,061	220	11%	2,094	235	11.2%	2,127	251	11.8%	2,161	267	12.4%	2,195	285	13.0%	2,230	304	13.6%	2,265	325	14.3%	2,301	346	15.0%	2,338	369	15.8%
	Other Non-Ferrous Metals	Other aluminum	**0.24%**	93	0	0.0%	93	0	0.0%	94	0	0%	96	0	0.0%	97	0	0.0%	99	0	0.0%	100	0	0.0%	102	0	0.0%	104	0	0.0%	105	0	0.0%	107	0	0.0%
		Automotive batteries	**0.59%**	223	0	0.0%	223	0	0.0%	226	0	0%	230	0	0.0%	233	0	0.0%	237	0	0.0%	241	0	0.0%	245	0	0.0%	249	0	0.0%	253	0	0.0%	257	0	0.0%
		Other non-aluminum	**0.36%**	137	0	0.0%	136	0	0.0%	138	0	0%	141	0	0.0%	143	0	0.0%	145	0	0.0%	148	0	0.0%	150	0	0.0%	152	0	0.0%	155	0	0.0%	157	0	0.0%
	Other Non-Ferrous Metals (Total)		**1.19%**	453	86	19.0%	452	89	19.6%	459	95	21%	466	101	21.6%	474	108	22.7%	481	115	23.9%	489	123	25.1%	497	131	26.3%	505	139	27.6%	513	149	29.0%	521	159	30.5%
	Total Metals		**8.11%**	3,082	486	15.8%	3,077	501	16.3%	3,126	535	17%	3,175	570	18.0%	3,226	608	18.9%	3,277	649	19.8%	3,329	692	20.8%	3,382	738	21.8%	3,436	788	22.9%	3,490	840	24.1%	3,546	896	25.3%
Plastic	**PET Containers**		**0.88%**	334	10	3.0%	334	10	3.0%	339	11	3%	344	12	3.4%	350	12	3.5%	355	13	3.7%	361	14	3.9%	367	15	4.1%	372	16	4.3%	378	17	4.5%	384	18	4.7%
	HDPE Containers		**0.83%**	314	10	3.2%	313	10	3.3%	318	11	3%	324	12	3.6%	329	12	3.8%	334	43	13.0%	339	14	4.2%	345	15	4.4%	350	16	4.6%	356	17	4.8%	361	18	5.0%
	Other Plastic (3-7) Containers		**0.19%**	73	10	13.7%	73	10	14.2%	74	11	15%	75	12	15.6%	76	13	16.4%	77	33	42.0%	79	14	18.1%	80	15	19.0%	81	16	19.9%	82	17	20.9%	84	18	22.0%
	Film Plastic		**5.66%**	2,154	10	0.5%	2,150	11	0.5%	2,184	12	1%	2,219	13	0.6%	2,254	14	0.6%	2,290	283	12.4%	2,326	16	0.7%	2,363	17	0.7%	2,401	18	0.7%	2,439	19	0.8%	2,478	20	0.8%
	Other Plastic	Durables	**3.10%**	1,179	0	0.0%	1,177	0	0.0%	1,195	0	0%	1,214	0	0.0%	1,234	0	0.0%	1,253	0	0.0%	1,273	0	0.0%	1,293	0	0.0%	1,314	0	0.0%	1,335	0	0.0%	1,356	0	0.0%
		Non-Durables	**1.69%**	642	0	0.0%	641	0	0.0%	651	0	0%	661	0	0.0%	672	0	0.0%	683	0	0.0%	694	0	0.0%	705	0	0.0%	716	0	0.0%	727	0	0.0%	739	0	0.0%
		Packaging	**1.27%**	482	0	0.0%	481	0	0.0%	488	0	0%	496	0	0.0%	504	0	0.0%	512	0	0.0%	520	0	0.0%	529	0	0.0%	537	0	0.0%	545	0	0.0%	554	0	0.0%
	Other Plastic (Total)		**6.06%**	2,302	60	2.6%	2,298	63	2.7%	2,335	67	3%	2,372	71	3.0%	2,410	76	3.2%	2,448	81	3.3%	2,487	87	3.5%	2,527	92	3.7%	2,567	99	3.8%	2,608	105	4.0%	2,649	112	4.2%
	Total Plastics		**13.62%**	5,177	100	1.9%	5,168	105	2.0%	5,250	112	2%	5,334	119	2.2%	5,419	127	2.3%	5,505	454	8.2%	5,592	145	2.6%	5,681	154	2.7%	5,771	165	2.9%	5,863	175	3.0%	5,956	187	3.1%
Glass	**Glass Bottles, Jars and Containers**		**3.88%**	1,475	50	3.4%	1,472	51	3.5%	1,496	54	4%	1,519	58	3.8%	1,543	62	4.0%	1,568	66	4.2%	1,593	70	4.4%	1,618	75	4.6%	1,644	80	4.9%	1,670	85	5.1%	1,697	91	5.4%
	Other Glass (Flat glass, dishware, light bulbs, etc.)		**0.37%**	140	50	36.1%	140	52	37.3%	142	55	39%	144	59	41.1%	146	63	43.2%	149	67	45.3%	151	72	47.6%	153	77	50.0%	156	82	52.4%	158	87	55.1%	161	93	57.8%
	Total Glass		**4.25%**	1,614	100	6.2%	1,612	103	6.4%	1,637	110	7%	1,663	117	7.0%	1,690	125	7.4%	1,717	133	7.8%	1,744	142	8.2%	1,772	152	8.6%	1,800	162	9.0%	1,828	173	9.4%	1,857	184	9.9%
Organics	**Food Scraps**		**13.85%**	5,264	418	7.9%	5,255	4,122	78.4%	5,339	4,292	80%	5,424	4,469	82.4%	5,510	4,654	84.5%	5,597	4,846	86.6%	5,686	5,046	88.7%	5,777	5,255	91.0%	5,869	5,472	93.2%	5,962	5,697	95.6%	6,057	5,933	98.0%
	Leaves and Grass / Pruning and Trimmings		**8.70%**	3,308	383	11.6%	3,302	378	11.4%	3,355	403	12%	3,408	430	12.6%	3,462	459	13.2%	3,517	489	13.9%	3,573	522	14.6%	3,630	557	15.3%	3,688	594	16.1%	3,746	633	16.9%	3,806	676	17.8%
	Total Organics		**22.55%**	8,572	801	9.3%	8,557	4,500	52.6%	8,693	4,695	54%	8,832	4,899	55.5%	8,972	5,113	57.0%	9,115	5,335	58.5%	9,260	5,568	60.1%	9,407	5,811	61.8%	9,556	6,065	63.5%	9,708	6,331	65.2%	9,862	6,608	67.0%
Textiles	**Clothing Footwear, Towels, Sheets**		**3.87%**	1,473	500	34.0%	1,470	597	40.6%	1,494	637	43%	1,517	680	44.8%	1,541	725	47.0%	1,566	773	49.4%	1,591	825	51.9%	1,616	880	54.5%	1,642	939	57.2%	1,668	1,001	60.0%	1,694	1,068	63.0%
	Carpet		**1.52%**	579	450	77.7%	578	271	46.8%	587	289	49%	597	308	51.6%	606	329	54.2%	616	351	56.9%	626	374	59.8%	636	399	62.8%	646	426	65.9%	656	454	69.2%	666	484	72.6%
	Total Textiles		**5.40%**	2,052	950	46.3%	2,048	868	42.4%	2,081	926	45%	2,114	988	46.7%	2,148	1,054	49.1%	2,182	1,124	51.5%	2,216	1,199	54.1%	2,252	1,279	56.8%	2,288	1,364	59.6%	2,324	1,455	62.6%	2,361	1,552	65.8%
Wood	***Total Wood* (Pallets, crates, adulterated and non-adulterated)**		**3.98%**	1,514	1,400	92.4%	1,512	516	34.1%	1,536	550	36%	1,560	570	36.5%	1,585	591	37.3%	1,610	612	38.0%	1,636	634	38.8%	1,662	657	39.6%	1,688	681	40.4%	1,715	706	41.2%	1,742	753	43.2%
Miscellaneous	DIY Construction & Renovation Materials		**4.21%**	1,601	1,200	75.0%	1,598	1,032	64.6%	1,623	1,101	68%	1,649	1,174	71.2%	1,675	1,252	74.8%	1,702	1,336	78.5%	1,729	1,425	82.4%	1,756	1,520	86.5%	1,784	1,621	90.9%	1,813	1,729	95.4%	1,841	1,827	99.2%
	Diapers		**1.67%**	634	400	63.0%	633	206	32.6%	643	220	34%	654	235	35.9%	664	250	37.7%	675	267	39.6%	685	285	41.5%	696	304	43.6%	707	324	45.8%	719	346	48.1%	730	369	50.5%
	Electronics		**1.58%**	602	300	49.8%	601	206	34.3%	611	220	36%	621	235	37.9%	630	251	39.7%	641	267	41.7%	651	285	43.8%	661	304	46.0%	672	324	48.3%	682	346	50.7%	693	369	53.3%
	Tires		**1.61%**	613	300	49.0%	612	206	33.7%	622	220	35%	631	235	37.2%	641	250	39.0%	652	267	41.0%	662	285	43.0%	673	304	45.2%	683	324	47.4%	694	346	49.8%	705	369	52.3%
	HHW		**0.33%**	127	100	78.8%	127	52	40.7%	129	55	43%	131	59	44.9%	133	63	47.2%	135	67	49.5%	137	71	52.0%	139	76	54.6%	141	81	57.3%	144	86	60.2%	146	92	63.2%
	Soils and Fines		**0.24%**	90	50	55.7%	90	52	57.5%	91	55	60%	92	59	63.4%	94	63	66.6%	95	67	69.9%	97	71	73.4%	98	76	77.1%	100	81	81.0%	102	86	85.0%	103	92	89.3%
	Other Composite Materials - Durable and/or inert		**1.61%**	611	300	49.1%	610	412	67.6%	620	436	70%	630	460	73.1%	640	486	76.1%	650	514	79.1%	660	543	82.3%	671	574	85.6%	681	606	89.0%	692	640	92.5%	703	677	96.2%
	Total Miscellaneous		**11.25%**	4,278	2,650	61.9%	4,270	2,166	50.7%	4,338	2,306	53%	4,407	2,456	55.7%	4,477	2,615	58.4%	4,549	2,784	61.2%	4,621	2,965	64.2%	4,694	3,157	67.3%	4,769	3,362	70.5%	4,845	3,580	73.9%	4,922	3,795	77.1%

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Population	40,397	40,397	41,246	42,112	42,996	43,899	44,821	45,762	46,723	47,705	48,706
MSW Generated (tons)	38,018.99	37,953	38,557	39,170	39,792	40,425	41,067	41,720	42,383	43,057	43,741
Per Capita MSW Generated (lbs/person/year)	1,882	1,879	1,870	1,860	1,851	1,842	1,832	1,823	1,814	1,805	1,796

MSW Diverted (tons)	8,824.92	9,779	10,323	10,881	11,471	12,413	12,754	13,452	14,190	14,970	15,800
Per Capita MSW Diverted (lbs/person/year)	437	484	501	517	534	566	569	588	607	628	649

MSW Disposed (tons)	29,194.07	28,174	28,234	28,289	28,321	28,012	28,313	28,268	28,193	28,087	27,941
Per Capita MSW Disposed (lbs/person/year)	1,445	1,395	1,369	1,343	1,317	1,276	1,263	1,235	1,207	1,178	1,147
Per Capita MSW Disposed (lbs/person/day)	3.96	3.82	3.75	3.68	3.61	3.50	3.46	3.38	3.31	3.23	3.14

APPENDIX B - Town of Riverhead 2020 Recycling Calendar and MSW Flyer

TOWN OF RIVERHEAD
LAURA JENS-SMITH, TOWN SUPERVISOR
200 Howell Avenue, Riverhead, NY 11901
Tel: (631) 727-3200 / Fax: (631) 727-6712
www.townofriverheadny.gov

December, 2019

Dear Resident,

Enclosed you will find the **2020 Recycling Calendar** for Town of Riverhead residents. This calendar outlines our recycling guidelines, collection schedule and holidays. This letter includes helpful recycling information further explaining curbside pickup for both refuse and recyclables. Please take a moment to review the information provided below.

All residents have two days of trash collection each week: based on your address, your days are either Monday & Thursday or Tuesday & Friday. Recyclables are collected throughout the Town on Wednesday only. Please take notice that if a holiday falls on your recyclable or trash collection day, pickup will not be made until your next scheduled pickup day.

Material must be at the curb at 6:00 AM on your regular collection day, but please remember, Town ordinance prohibits trash and/or recyclables from being placed at the curb prior to 12:00 PM on the day before your designated collection day.

An unlimited amount of Yard Waste (excluding grass clippings) shall be collected on your normally scheduled bulk day on the weeks highlighted in tan on the attached recycling calendar. Leaves must be bagged in paper lawn & leaf bags or placed loose in pails for curbside pickup. Branches shall be bundled in four (4) ft. or shorter lengths, not weighing more than 50lbs. Do not use plastic bags, they will not be collected.

The town continues to have a permanent medication drop box located in the lobby of the Riverhead Police Department at 210 Howell Avenue. Unused, unwanted and expired medications can be disposed of at this location 24 hours a day, 7 days a week.

As a reminder, you can dispose of your e-waste (computers and related equipment, electronics, and televisions) at the Town's Yard Waste Facility on Youngs Avenue. This facility's operating hours are Thursday through Monday from 7:00 AM - 3:00 PM.

You can find this and more helpful information by visiting the Sanitation Department's section of the Town's website at **www.townofriverheadny.gov**. Should you require personal attention, you can reach the Sanitation Department at 631-727-3200 ext. 391 between 8:30 AM and 4:30 PM, Monday thru Friday.

Thank you for your cooperation and I wish you and your family a very happy and safe holiday season.

Sincerely yours,

Laura Jens-Smith
Town Supervisor

TOWN OF RIVERHEAD

RECYCLING PICK UP SCHEDULE

2020

Supervisor
Yvette Aguiar

Town Board
Catherine Kent
Frank Beyrodt
Jodi Giglio
Tim Hubbard

Commingled - plastic containers with recycle emblem (#'s 1 & 2), glass, cans

Paper/Cardboard - news & copy paper, magazines, all cardboard products, phone books, books (hard covers removed)

Holiday - day of holiday there will be no service; remainder of week please follow your normal schedule

Yard Waste - unlimited paper bagged leaves & yard waste will be collected on your normally scheduled bulk/yard waste day, but separately.

DO NOT USE OR INCLUDE PLASTIC BAGS IN RECYCLING OR LEAF DISPOSAL

S.T.O.P. Program (hazardous waste drop off) May 30th & October 24th
For more info, please call Sanitation Dept. 631-727-3200 ext. 391

JANUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7		9	10	11
12	13	14	15	16	17	18
19	20	21		23	24	25
26	27	28	29	30	31	

FEBRUARY

S	M	T	W	T	F	S
						1
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16	17	18		20	21	22
23	24	25	26	27	28	29

MARCH

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22	23	24	25	26	27	28
29	30					

APRIL

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12	13	14		16	17	18
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26	27	28		30		

MAY

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17	18	19	20	21	22	23
24	25	26		28	29	30
31						

JUNE

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14	15	16	17	18	19	20
21	22	23		25	26	27
28	29	30				

JULY

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19	20	21		23	24	25
26	27	28	29	30	31	

AUGUST

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23	24	25	26	27	28	29
30	31					

SEPTEMBER

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27	28	29				

OCTOBER

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25	26	27		29	30	31

NOVEMBER

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15	16	17	18	19	20	21
22	23	24		26	27	28
29	30					

DECEMBER

S	M	T	W	T	F	S
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13	14	15	16	17	18	19
20	21	22		24	25	26
27	28	29	30	31		

Proudly serviced by European American Waste Disposal

APPENDIX C - Commercial Private Waste Disposal License Application

Town of Riverhead

INSTRUCTIONS FOR COMPLETION OF WASTE DISPOSAL LICENSE APPLICATION

The attached application must be completed, signed and notarized as indicated and submitted to the Sanitation Department at 200 Howell Avenue, Riverhead, New York 11901

The following MUST accompany the application:

1. Copies of all registrations of all vehicles used
2. Copies of proof of insurance for all vehicles-as well as proof of liability insurance in the event of injury to persons or property. (Full Copy)
3. Copies of all driver's licenses of persons authorized to operate vehicles
4. County Health Inspection Report of all vehicles applying for Class 1 and Class 2 licenses
5. Each application for license, except for Class 3, shall submit to the Town Clerk a list of all customers to be served in the Town of Riverhead including customer name, street number and name of post office.
6. Signed Release Statement-attached at the end of the application form
7. Payment of $50.00 Application Fee for Class 1, 2, and 3 Licenses

ALL APPLICATIONS MUST COMPLY TO THE ABOVE, NO EXCEPTIONS WILL BE MADE. IN ADDITION, AS REQUIRED BY TOWN CODE, QUARTERLY REPORTS DETAILING COLLECTION INFORMATION MUST BE SUBMITTED TO THE SANITATION SUPERINTENDENT NO LATER THAN 30 DAYS FOLLOWING THE LAST DAY OF EACH QUARTER.

YEAR: _____

FOR OFFICE USE ONLY:

CLASS#:_____
LICENSE FEE:_____
STICKER FEE:_____
APPLICATION FEE:_____
TOTAL FEE:_____

ACCOUNT#:_____

TOWN OF RIVERHEAD
APPLICATION FOR WASTE DISPOSAL LICENSE

NAME OF COMPANY:_____

ADDRESS:_____

TELEPHONE:_____

EMAIL ADDRESS:_____

List persons having a financial interest in the above named firm:

Name	Address	Social Security #

TYPES OF LICENSES REQUESTED
(Check all licenses required)

_____Class 1 Licenses: Required of all persons engaged in the business of collecting or removing solid waste from premises defined as NON-RESIDENCES, including any person who collects or removes solid waste from non-residence premises which he or she does not own, lease or occupy, whether or not such person is engaged in the business of collecting or removing solid waste. Annual Fee: $250.00 PLUS Application Fee: $50.00 PLUS $50.00 each truck

_____Class 2 Licenses: Required of all persons engaged in the business of collecting or removing solid waste from RESIDENTIAL premises. Annual Fee: $250.00 PLUS Application Fee: $50.00 PLUS $50.00 each truck. If a Class 1 license is currently held, there is no fee required for a Class 2 License

_____Class 3 Licenses: Required of all persons who collect or remove from any premises in the Town of Riverhead any of the following materials: construction and demolition debris; land clearing debris; bulk waste. A Class 3 License shall not be required if such person removes such materials from premises which he/she owns, leases or occupies. Annual Fee: $250.00 PLUS $50.00 per vehicle PLUS Application fee of $50.00

$---------- TOTAL FEES

APPENDIX D - European American Award For All Six Residential Solid Waste CBAs For A Period Of Five Year From January 1, 2018 Through December 31, 2022 - Resolution #594

08.01.2017 ADOPTED
170594

TOWN OF RIVERHEAD

Resolution # 594

AWARDS BID FOR RESIDENTIAL SOLID WASTE COLLECTION AND DISPOSAL SERVICES FOR THE RIVERHEAD REFUSE AND GARBAGE DISTRICT

Councilman Hubbard offered the following resolution,

which was seconded by Councilman Dunleavy

WHEREAS, the Town Board of the Town of Riverhead, by Resolution #434 adopted on June 6, 2017, authorized the issuance of a Notice to Bidders for the Residential Solid Waste Collection and Disposal Services for the Riverhead Refuse and Garbage District (Contract Bid Areas A-F); and

WHEREAS, pursuant to the terms of the bid request, each proposal must comply with the instructions in the Notice to Bidders and required that all proposals be submitted on or before 4:00 pm on July 27, 2017 and

WHEREAS, six (6) responses to the bid request were received, opened and read aloud on July 28, 2017 at 11:00 am in the office of the Town Clerk, 200 Howell Avenue, Riverhead, New York; and

WHEREAS, the Town Engineering Department and Office of the Town Attorney did review and evaluate the bid proposals; and

WHEREAS, after serious consideration and evaluation, the Town Engineering Department and Office of the Town Attorney recommend that the Town Board deem European-American Waste Disposal Corporation to be the lowest responsible bidder for all six contract bid areas (Contract Bid Areas A through F) based upon the base bids (Contractor responsible to deliver solid waste to a permitted recyclables processing facility for processing and marketing as recovered materials); and award the bid for said contract areas to European-American Waste Disposal Corporation subject to terms and conditions set forth in bid specifications/contract.

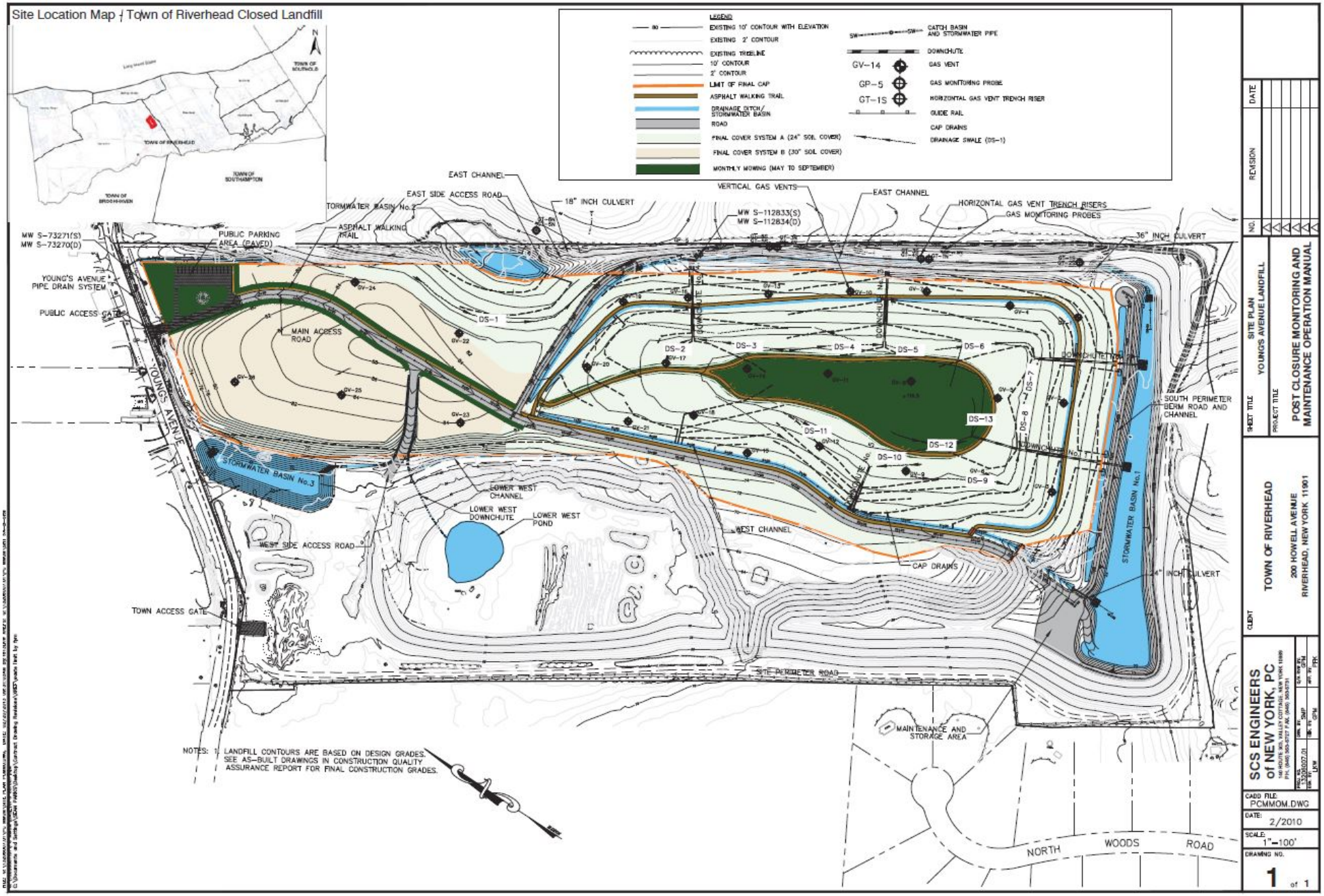
NOW THEREFORE BE IT RESOLVED, that the Town Board of the Town of Riverhead, acting as the governing body of the Town of Riverhead Refuse and Garbage District, deems European-American Waste Disposal Corporation to be the lowest responsible bidder for contract bid areas A through F based upon the base bids and hereby awards the bids for all contract areas to European-American Waste Disposal Corporation based upon the base bid and subject to terms and conditions set forth in bid specifications/contract, including but not limited to, compliance with prevailing wage rates set annually by the New York State Commissioner of Labor, performance security, insurance, as set forth in the bid specifications/contract; and be it further

RESOLVED, that the Town Board be and does hereby authorize the Town Clerk to return any and all bid bonds received in connection with the above; and be it further

RESOVLED, that the Town Board be and does hereby authorize the Supervisor to execute any documents or agreements, to the extent required, with European-

APPENDIX E – Suffolk Recycles Flyer

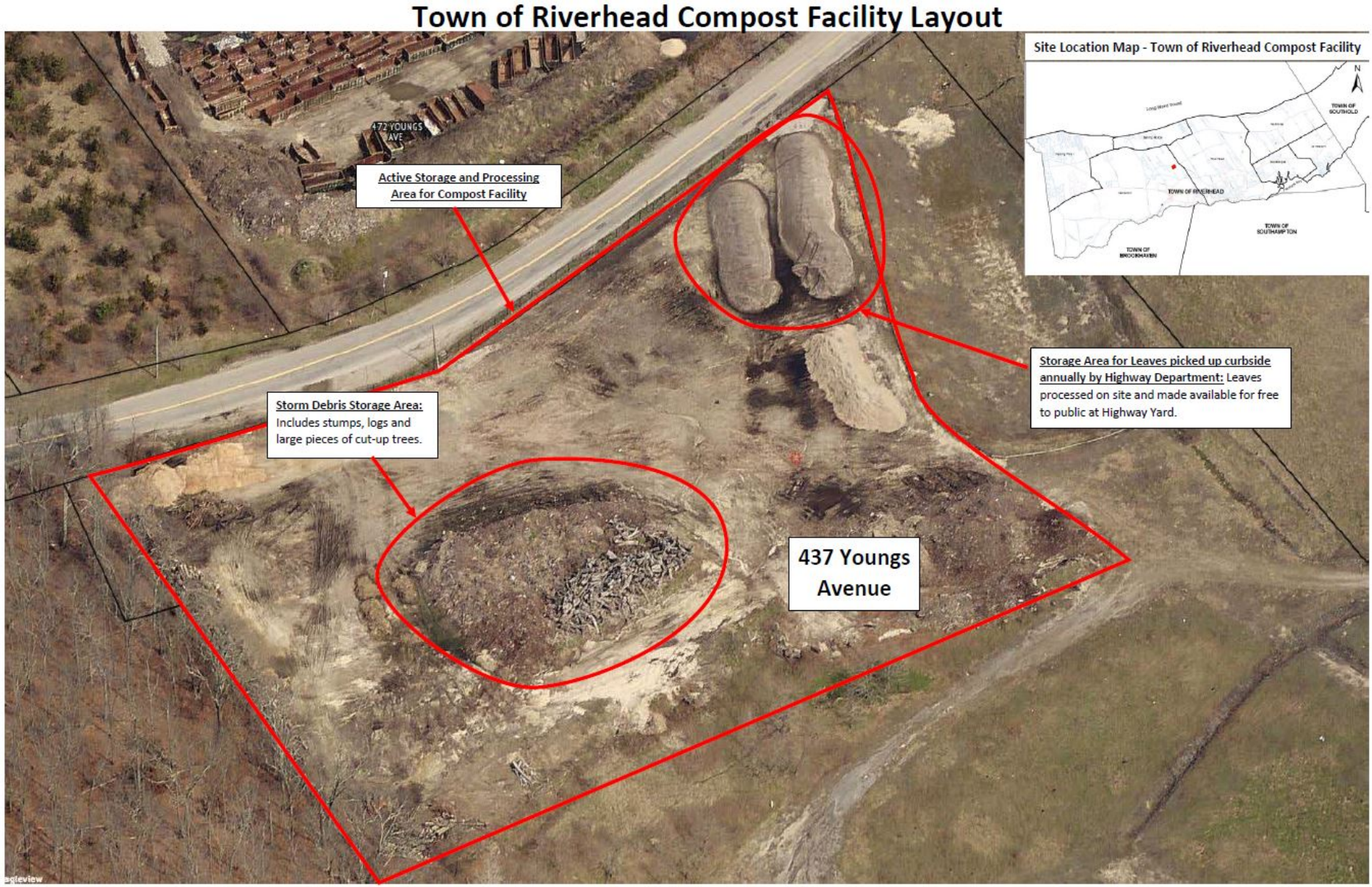
APPENDIX F - Site Plan, Young's Avenue Landfill



APPENDIX G - Yard Waste Facility Layout

Town of Riverhead Yard Waste Facility Layout

APPENDIX H - Compost Facility Layout



APPENDIX I – Town of Riverhead 2020 STOP Days Flyer

TOWN OF RIVERHEAD

STOP | Stop Throwing Out Pollutants

RIVERHEAD

Poison

July 25th & October 24th

LOCATED AT RIVERHEAD HIGHWAY YARD 1177 OSBORN AVENUE

8:00 AM TO 3:00 PM

HOUSEHOLD CHEMICALS AND ELECTRONICS DISPOSAL AND MEDICATION GIVEBACK EVENT

POLLUTANTS AND ELECTRONICS DISPOSAL AREA OPEN TO RIVERHEAD RESIDENTS ONLY

MEDICATION GIVEBACK OPEN TO ALL

WHAT TO BRING:

AUTOMOTIVE PRODUCTS
A/C refrigerants Antifreeze
Auto body putty
Brake fluid
Carburetor cleaner
Degreasers
Gasoline
Oil additives Starter fluid
Waxes & polishes
Car & Marine Batteries

HOUSEHOLD PRODUCTS
Adhesives
All cleansers
Driveway sealer
Fluorescent bulbs
Lead/oil based paints
Mothballs
Paint thinner/strippers
Stains & varnishes
Kerosene
Medication

OTHER PRODUCTS
Aerosols
Alcohol products
Arts & crafts supplies
Rechargeable Batteries
Lighter fluid
Mercury (liquid)
Mercury vapor lights
Photographic chemicals
Solder material
Swimming pool/Spa chemicals

LAWN & GARDEN PRODUCTS
Fungicides Herbicides
Insecticides Pesticides
Rodenticides

UN-USED MEDICATIONS

ELECTRONIC EQUIPMENT (E-WASTE) *DO NOT BRING BIG OR SMALL APPLIANCES OR AC UNITS*
Computers, Cell phones, DVD/VCRs, Televisions, Stereos/portable radios, Small printers/scanners (under 100lbs), Video game consoles, Hand held video games, Cable or satellite receivers

EXPLOSIVES, MEDICAL WASTE AND COMMERCIAL/INDUSTRIAL WASTE PROHIBITED

ALL CONTAINERS MUST BE SEALED AND PROPERLY LABELED

MEDICATION CAN BE IN ORIGINAL CONTAINER OR PLASTIC BAG MEDICATION GIVE BACK 631-727-3722 X 106

FOR FURTHER INFORMATION CALL

STOP PROGRAM: 631-727-3200 EXT. 391

APPENDIX J – Costs for Town of Riverhead Municipal Solid Waste Program

Account Id	Account Description	2019 Revenue Budgeted	2019 Revenue Actual	2020 Revenue Budgeted	2020 Revenue Actual	2021 Revenue Budgeted
SR1-1001-001-00000-A	Property Taxes - Refuse & Garbage Collection District	3,021,200.00	3,033,648.01	3,329,300.00	3,333,956.94	3,897,300.00
SR1-2401-000-00000-G	Interest and Earnings	0.00	23,820.21	0.00	7,449.73	0.00
SR1-2655-000-00000-1	Sales, Other	0.00	4,803.59	0.00	393.00	0.00
SR1-9999-000-00000-0	APPROPRIATED FUND BALANCE (BUDGET PREP)	262,800.00	0.00	0.00	0.00	0.00
	Refuse & Garbage Collection District Revenue Total	**3,284,000.00**	**3,062,271.81**	**3,329,300.00**	**3,341,799.67**	**3,897,300.00**

Account Id	Account Description	2019 Expenses Budgeted	2019 Expenses Actual	2020 Expenses Budgeted	2020 Expenses Actual	2021 Expenses Budgeted
SR1-1-1910-487-000-00000	Unall Ins - Self Insurance Payments	24,199.00	24,199.00	25,000.00	24,968.47	26,800.00
SR1-1-1910-488-000-00000	Unall Ins - Claim Payments	24,601.00	0.00	15,600.00	0.00	17,900.00
SR1-8-8160-280-000-00000	Refuse - Vehicles	10,000.00	0.00	10,000.00	0.00	10,000.00
SR1-8-8160-400-000-00000	Refuse - Contractual	219,900.00	212,300.00	206,500.00	199,000.00	221,100.00
SR1-8-8160-405-000-00000	Refuse - R&M - Vehicles	5,886.26	284.32	6,000.00	1,204.03	6,000.00
SR1-8-8160-426-000-00000	Refuse Fuel - Gasoline & Diesel	4,500.00	1,090.31	4,500.00	642.32	4,500.00
SR1-8-8160-455-231-00000	Refuse - Program Exp - Recycling Program	12,600.00	12,596.00	1,000.00	0.00	1,000.00
SR1-8-8160-482-000-00000	Refuse - Waste Disposal	2,875,576.00	2,875,509.00	2,953,000.00	2,963,871.19	3,204,900.00
SR1-8-8160-490-000-00000	Refuse - Miscellaneous	3,513.74	3,513.74	3,000.00	1,722.42	3,000.00
SR1-8-8160-495-000-00000	Refuse - Administrative Charges	13,928.00	13,918.00	12,800.00	12,755.00	13,800.00
SR1-9-9010-801-NON-00000	NYS Retirement Non-Uni Pers	24.00	24.00	8.00	8.00	0.00
SR1-9-9040-887-000-00000	WC - Self Insurance Payments	15,300.00	11,881.00	12,292.00	12,165.00	13,500.00
SR1-9-9040-888-000-00000	WC - Claim Payments	27,700.00	27,692.00	35,100.00	35,077.00	38,800.00
SR1-9-9060-810-NON-00000	Hosp - Hosp, Den & Opt Ins Non-Uni Pers	37,100.00	25,604.19	36,500.00	28,091.89	28,300.00
SR1-9-9901-900-V01-00000	Trf - Interfund Trf - Gen Fund Debt Svc	9,172.00	9,171.11	8,000.00	7,934.16	7,700.00
SR1-9-9990-000-000-00000	Refuse - Fund Balance Transfer	0.00	0.00	0.00	0.00	300,000.00
	Refuse & Garbage Collection District Expenditure Total	**3,284,000.00**	**3,217,782.67**	**3,329,300.00**	**3,287,439.48**	**3,897,300.00**
	Change in Fund Balance - Refuse & Garbage Collection	**0.00**	**(155,510.86)**	**0.00**	**54,360.19**	**0.00**

Account Id	Account Description	2019 Revenue Budgeted	2019 Revenue Actual	2020 Revenue Budgeted	2020 Revenue Actual	2021 Revenue Budgeted
A01-1001-001-00000-A	Property Taxes - General Refuse	355,700.00	355,700.00	387,733.22	387,733.00	349,900.00
	General Refuse Revenue Total	**355,700.00**	**355,700.00**	**387,733.22**	**387,733.00**	**349,900.00**

Account Id	Account Description	2019 Expenses Budgeted	2019 Expenses Actual	2020 Expenses Budgeted	2020 Expenses Actual	2021 Expenses Budgeted
A01-8-8160-101-NON-00000	Refuse -Personal Services	163,900.00	161,391.22	160,100.00	176,083.74	163,500.00
A01-8-8160-111-NON-00000	Refuse -Personal Services OT	10,000.00	4,721.50	10,000.00	5,767.53	6,000.00
A01-8-8160-112-NON-00000	Refuse -Pers Svcs Longevity	3,717.22	2,829.45	5,300.00	2,887.54	3,000.00
A01-8-8160-152-000-00000	Refuse & Garbag Sick Buy Back	0.00	(2,114.62)	0.00	0.00	8,900.00
A01-8-8160-154-NON-00000	Refuse -Pers Svcs Health Ins Buy Back	1,700.00	1,650.00	5,300.00	0.00	1,700.00
A01-8-8160-155-000-00000	Refuse -Pers Svcs Union Buy Back	4,282.78	4,282.78	8,900.00	0.00	0.00
A01-8-8160-240-000-00000	Refuse - Equipment	0.00	0.00	23,318.22	23,080.00	0.00
A01-8-8160-402-000-00000	Refuse -R&M - Landfill	64,643.53	64,635.00	60,000.00	42,318.67	55,000.00
A01-8-8160-405-000-00000	Refuse -R&M - Vehicles	15,756.47	15,724.66	10,200.00	21,106.99	20,000.00
A01-8-8160-425-000-00000	Refuse -Uniforms	1,000.00	858.18	1,115.00	1,114.30	500.00
A01-8-8160-426-000-00000	Refuse Fuel - Gasoline & Diesel	10,200.00	10,182.51	10,000.00	7,307.51	10,000.00
A01-8-8160-455-232-00000	Refuse -Program Exp - Anti Litter Adv Cm	1,000.00	755.00	1,000.00	0.00	1,000.00
A01-8-8160-464-000-00000	Refuse -Rents & Leases - Cell Phones	400.00	368.34	500.00	215.85	300.00
A01-8-8160-482-000-00000	Refuse -Waste Disposal	27,300.00	24,966.78	35,000.00	22,651.80	35,000.00
A01-8-8160-482-WST-00000	Refuse - Hazardous Waste Disposal	51,800.00	41,024.28	57,000.00	43,440.85	45,000.00
	General Fund Refuse Expenditure Total	**355,700.00**	**331,275.08**	**387,733.22**	**345,974.78**	**349,900.00**
	Change to Fund Balance - General Refuse	**0.00**	**24,424.92**	**0.00**	**41,758.22**	**0.00**

		2019 Budgeted	2019 Actual	2020 Budgeted	2020 Actual	2021 Budgeted
	Total All Revenues	**3,639,700.00**	**3,417,971.81**	**3,717,033.22**	**3,729,532.67**	**4,247,200.00**
	Total All Expenditures	**3,639,700.00**	**3,549,057.75**	**3,717,033.22**	**3,633,414.26**	**4,247,200.00**
	Total Change to Fund Balances	**0.00**	**(131,085.94)**	**0.00**	**96,118.41**	**0.00**

APPENDIX K– Source Separation of Recyclable Materials – Town Code 273-8

§ 273-8 **Source separation of recyclable materials.**

A. Owners and occupiers of all properties within the district shall be required to source-separate recyclable materials from municipal solid waste. Recyclable materials shall not be commingled with other solid waste during collection, transportation or storage following collection.

B. Recyclable materials shall be placed at the curb line or pavement line at the same time as regular weekly refuse in designated containers as determined by the Town of Riverhead. Recyclables are to be separated but placed next to regular weekly refuse.

C. Any and all collectors collecting residential MSW generated within the district shall refuse to collect MSW from any person or party who has clearly failed to source-separate the recyclable materials and/or who has not properly prepared the recyclable materials to the specifications of the collector. A written explanation shall be provided to the person or party of the reason for the refusal for collection of the materials by the collector, and a copy shall be delivered to the Sanitation Superintendent.

D. The Town of Riverhead shall from time to time determine by resolution which items must be source-separated as recyclables. The list of recyclables shall be posted on the Town sign board and published in a local newspaper. Enforcement of items newly included on said list shall not take place until 30 days following adoption. Any authorized collector shall have the right to request the Town Board to remove any item from such list. Upon receipt of satisfactory information indicating that such item would not be required to be recycled in accordance with federal or state law or regulations and that a market in such item is not readily available, the Town Board may, in its reasonable discretion, delete said item from the list of recyclables.

APPENDIX L - Establishment of District – Town Code 273-4

§ 273-4 **Establishment of district.**

The Town of Riverhead established a Solid Waste Collection and Disposal District ("district"), which, at the time of this chapter, subject to amendment by resolution of the Town Board, consists of six contract bid areas for the collection of all residential solid waste within the district. The district does not provide for the collection of solid waste from commercial operations or institutions as defined in § **273-3**.

APPENDIX M - Town of Riverhead Solid Waste Management Intent - Town Code 273-2

§ 273-2 **Purpose; findings; construal of provisions.**

The purpose of this chapter is to protect and promote the health, safety and welfare of the residents of the Town of Riverhead by controlling the storage and disposal of solid waste generated within the Town in the most economical and environmentally acceptable manner; provide for the orderly collection of solid waste; implement the Town of Riverhead Solid Waste Management Plan; comply with the requirements and further the purposes of the New York State Solid Waste Management Act; and to protect the drinking water supply in the Town of Riverhead. In addition, the Town Board finds that increased efforts to recover and reuse recyclable materials will protect and enhance the Town's physical environment and promote the health and safety of persons and property within the Town. The provisions set forth herein seek not only to facilitate the implementation and operation of an environmentally sound solid waste management program and conservation of natural resources but to promote the recovery of materials from the Town's solid waste stream for the purpose of recycling such materials by source separation. Accordingly, the Town Board finds it is necessary to expand the Town's recycling program to provide opportunities for nonresidential, commercial, industrial and institutional establishments to recycle. Nothing herein is intended or should be construed to modify or amend any terms or conditions of any contracts for solid waste services to which the Town of Riverhead is a party in effect on the effective date of this chapter.

APPENDIX N – Implementation Schedule

Town of Riverhead Solid Waste Management Plan - 10 Year Implementation Schedule
Time Period: 2020 - 2029

Responsible Party
Town of Riverhead - Sanitation Department

Task Name

General

SWMP
- **Finalize SWMP**
  - DEC Review (November 2020)
  - Address DEC Comments
  - Submit Final Draft to Town Board
  - Riverhead Adoption of new SWMP
    - Draft Resolution for Adoption of new SWMP
    - Present Resolution for adoption of new SWMP at Town Board Meeting
  - Public Notice and comment period
  - Finalize SWMP
    - Incorporate comments
    - Submit Final Plan
- **Reporting**
  - Biennial Compliance Report
- **Staff**
  - Hire SW Coordinator

Laws and Legislation
- **Periodic Review of Legislation and Overall Program**
  - Analyze need for regional IMA
  - Review and track pertinent legislation
- **Enforcement**
  - Hold quarterly meetings with Code Enforcement

Finance
- **Contracts**
  - Review contracts to implement economic and operational efficiencies
  - Review facility contracts
- **Establish a 501 c3**
  - Board reviewing by-laws
  - Hold public hearing; advertise dates
  - Work Sessions and prepare resolution
  - Hold Board meeting for vote
  - Assign Staff for training session
  - Identify foundations for applications
  - Apply for funding
  - Continue to research/apply for funding as 501 c3
- **Continue to Apply for Standard Government Grants (DEC, EPA, EFC, etc.)**
  - Review of available grants and summarize opportunities in memorandum
- **Renewable Energy Opportunities**
  - Assess potential to incorporate alternative energy production into project (solar/geothermal/wind)
  - Partner with Towns to analyze local landfills for energy production (gas/solar/geothermal)

Education and Outreach
- **Continue to Expand Education & Outreach Initiatives**
  - Assess current outreach initiatives for potential improvement and expansion
  - Exhibit or present at two events per year that provide us the opportunity to provide information about the Towns' facilities, programs and services
  - Create/enhance resources for schools and, such as posting resources on website, list serve, posters, decals, signage, promotional materials and incentive programs
  - Evaluate printed material and identify potential updates
- **Website Utilization**
  - Post all available resources on website in categories for residential, businesses, schools and legal sectors
  - Update website to be the primary source for information to the public
  - Utilize website for communications, surveys, requests for tours and presenters
  - Post availability of tours and presenters on website and through targeted mailings
- **Annual Riverhead Recycles Award Program**
  - Identify organizations, agencies, businesses, institutions, and government entities that demonstrate excellence in recycling and/or waste prevention
  - Continue to hold Annual Awards Program to showcase three success models
- **Environmental Day**
  - Host Annual Environmental Day at Stotzky Park
  - Continue to promote the Towns' facilities and programs available to the public to create more awareness and increase participation
  - Continue to increase the number of local environmental exhibitors, vendors, demonstrations and other activities the bring value to attendees
- **Support Local, State and National Organizations Created to Promote Reduction, Reuse, and Recycling**
  - Create list of organizations (name, purpose, meeting dates, events)
  - Maintain active participation
- **Partnerships**
  - Seek out new partnerships with organizations to enhance education and outreach
- **Waste Wise Program**
  - Conduct semi-annual meetings
  - Evaluate methods to increase participation/membership
  - Evaluate cross-over opportunities with EPA Program

Recyclables and Waste Reduction

Increase Participation and Recyclables
- **Accepted Recyclable Materials**
  - Meetings with recycling facility operator
- **Residential Participation**
  - Meet with officials of one civic association each year to understand unique challenges such as cultural, lingual, and demographics
  - Attend civic association round table meetings with these communities to develop a plan for improved participation
  - Track participation within identified communities/neighborhoods, in response to outreach modification
- **Multi-Family Participation**
  - Meet with property owner/building management of one major subdevelopment each year to understand unique challenges to participation
  - Schedule work sessions with property owner/building management to develop a plan for improved participation
  - Track participation within complex, in response to outreach modification
- **Schools (K-12)**
  - Create/Update database of public schools by district and private, contacts and waste handling practices
  - Meet with representative of one public or private school annually to determine challenges/needs, such as student/staff participation, collection contract, food and custodial services, equipment, funding, and education
  - Schedule meetings with school officials, staff, teachers, and students to develop a plan for improved participation
  - Develop system to track ROI (participation, education, attendance at meetings, programs offered at schools, reduction)
  - Track ROI
- **Commercial/Institutional**
  - Create/Update database of commercial & institutions, contacts and waste handling practices
  - **Determine challenges/needs, such as employee participation, collection contract, housekeeping services, equipment, funding, and training
  - **Develop a plan to increase participation
  - Develop program to track ROI
  - Track ROI
- **Town**
  - Create/Update database of all municipal facilities, contacts and solid waste practices
  - Meet with staff to determine challenges/needs, such as employee participation, collection contract, housekeeping services, equipment, funding, and training
  - Schedule meetings with staff to develop a plan to increase participation
  - Develop program to track ROI
  - Track ROI

Yard Waste Composting - Increase Participation at Facilities and Promote Back-Yard Composting Efforts
- **Data Collection and Efficiencies**
  - Evaluate and implement means of capturing tonnage data from home composters
  - Evaluate improvements to residential drop off procedures
- **Increase Participation and Back-Yard Composting**
  - Evaluate best methods for education public on composting
  - Schedule meetings to discuss initiatives for increasing yard waste composting (residents, Cornell extension, SCSWCD)
  - Attend 2 Cornell Cooperative Extension meetings per year
  - Make presentation to Cornell once per year

Food Waste Recycling - Evaluate Incorporating Into Program
- **Feasibility**
  - Identify residential, commercial and industrial generators and determine available tonnage
  - Research existing food recycling programs to identify keys elements, lessons learned & economics
  - Research end-use options for recycled food waste
  - **Out of Town partnering opportunities
  - Research collection and Transportation options
  - **Town haulers, specialty haulers, pick-up frequency, products to include paper, bins & storage options
  - Economic Analysis
  - Evaluate regional program
- **Program Implementation**
  - Identify commercial/institutional facilities for program
  - Audit facilities to gather information for program components
  - Develop program components
  - Implement Program

Public Spaces Recycling
- **Parks, Sports Fields, Municipal Curbside**
  - Enumerate and map potential sites for implementation of initiatives by recyclable component (paper/container/food)
  - Rank potential areas for best implementation
  - Create pilot program at highest ranked location
- **Special Events**
  - Enumerate and map potential sites for implementation of initiatives by recyclable component (paper/container/food)
  - Rank potential areas for best implementation
  - Create pilot program at highest ranked location
  - Develop "kits" or "checklists" for event planners

Reuse and Recycle

Household Hazardous Waste Collection
- **Continue HHW Collection**
  - Continue Semi-annual S.T.O.P. events for public drop-off
- **E-Waste Collection**
  - Continue operation of E-waste container at yard waste facility
- **Continue Coordination with Pharmaceutical Take-Back Programs**
  - Continue to work with pharmacies, hospitals, and medical professionals on ways to increase take-back tonnage
  - Continue take back events and drop box locations
  - Continue outreach programs in local schools and retirement communities to educate and promote take back locations and events

Scrap Metal
- **Data Collection and Efficiencies**
  - Review permit process and reporting requirements
  - Identify and meet with scrap metal haulers and facilities
  - Develop data collection procedures

Deconstruction
- **Implementation & Expansion Evaluation**
  - Research existing programs and reuse opportunities and report options to Town Board
  - Meet with contractors/unions
  - Conduct cost-benefit analysis to determine feasibility of Town operated program

Materials Exchange/Reuse
- **Implementation & Expansion Evaluation**
  - Research existing programs and reuse opportunities and report options to Town Board to increase reuse infrastructure within Planning Unit
  - Develop list of regional reuse options and add to website
  - Attend County recycling meetings

Product Stewardship
- **Promotion and Support**
  - Review national and state initiatives and report findings to Town Board
  - Work with State and Industry
  - Join Product Stewardship Council and attend one meeting per year

Buy Recycled
- **Promotion and Support**
  - Add and maintain current information on website

Data Collection and Alternative Disposal
- **Data Collection and Operations**
  - Meet with operators of disposal facilities to discuss options to remove C&D materials from landfilled tonnage
  - Develop preliminary plan and evaluate alternative for C&D handling, recycling, and disposal
  - Audit waste stream to determine if an increase diversion rate is achievable (potential recyclables in waste stream)

Alternatives
- **Evaluate Alternative Transportation Methods (i.e.) Rail, Barge, etc.**
  - Review past initiatives
  - Evaluate alternatives
  - Update implementation schedule

APPENDIX A-3a
LIST OF ACTIVE AND RETIRED REGISTERED SOLID WASTE MANAGEMENT FACILITIES, NASSAU AND SUFFOLK COUNTIES

NYSDEC Division of Materials Management
downloaded 6/22/2021

NYS DEC **REGION 1**
County: **Nassau**

A.I.I. Allen Industries Inc (Oceanside Yard)	**[30W49R]**	NYUTM East: 613838	NYUTM North: 4497736
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W49R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	12/06/2010
		PERMIT EXPIRES:	---
OWNER:	Hampton Property Management	CONTACT:	William Allen
ADDRESS:	53 Hill Road	ADDRESS:	3467 Hampton Road
(*Mailing*):	Farmingdale, NY 11735	(*Location*):	Oceanside, NY 11572
PHONE:	(516)805-0146	PHONE:	(516)805-0146
WASTE TYPE:	Concrete, Asphalt, Soil (Clean), Brick, Rock	Date of Last Inspection:	

Blue Water Environmental	**[30W33R]**	NYUTM East: 613105	NYUTM North: 4494974
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W33R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/29/2004
		PERMIT EXPIRES:	---
OWNER:	Blue Water Environmental	CONTACT:	Ellis Koch
ADDRESS:	1750 New Highway	ADDRESS:	7 Washington Avenue
(*Mailing*):	Farmingdale, NY 11735	(*Location*):	Island Park, NY 11558
PHONE:	(631)249-1872	PHONE:	(631)249-1872
WASTE TYPE:		Date of Last Inspection:	

Con-Strux LLC (Westbury)	**[30W18R]**	NYUTM East: 621972	NYUTM North: 4511706
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W18R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/19/1999
		PERMIT EXPIRES:	---
OWNER:	Michael Posillico	CONTACT:	Marc Bretz
ADDRESS:	702 Grand Blvd	ADDRESS:	702 Grand Boulevard
(*Mailing*):	Westbury, NY 11590	(*Location*):	Westbury, NY 11590
PHONE:	(631)249-1872	PHONE:	(516)333-3133
WASTE TYPE:	Concrete, Asphalt, Brick, Soil (Clean), Rock	Date of Last Inspection:	02/22/2018

Dejana Industries Inc	**[30W21R]**	NYUTM East: 609227	NYUTM North: 4521806
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W21R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/10/2000
		PERMIT EXPIRES:	---
OWNER:	Dejana Industries Inc	CONTACT:	Ruth Merkel
ADDRESS:	12 Manorhaven Blvd	ADDRESS:	12 Manorhaven Blvd
(*Mailing*):	Port Washington, NY 11050	(*Location*):	Port Washington, NY 11050
PHONE:	(516)944-3100	PHONE:	(516)944-3100
WASTE TYPE:	Street Sweepings, Commingled Recyclables, Paper / Cardboard, Commingled Containers, Commingled Paper	Date of Last Inspection:	03/28/2017

Eversharp Recycling Inc **[30W47R]** NYUTM East: 615021 NYUTM North: 4524176

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W47R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	06/28/2010
		PERMIT EXPIRES:	---
OWNER:	Barbara Piliero	CONTACT:	Barbara Piliero
ADDRESS:	PO Box 481	ADDRESS:	10A Morris Ave
(*Mailing*):	Glen Head, NY 11545	(*Location*):	Glen Cove, NY 11542
PHONE:	(516)903-0406	PHONE:	(516)903-0406
WASTE TYPE:	Wood (Brush/ Branches/ Trees/ Stumps), Concrete, Soil (Clean)	Date of Last Inspection:	03/30/2017

Frank Robustello & Son Inc **[30W30R]** NYUTM East: 615978 NYUTM North: 4502653

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W30R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/03/2003
		PERMIT EXPIRES:	---
OWNER:	Robust Realty Corp.	CONTACT:	Frank Robustello
ADDRESS:	80 Seaman Avenue	ADDRESS:	380 North Long Beach Road
(*Mailing*):	Rockville Centre, NY 11570	(*Location*):	Rockville Centre, NY 11570
PHONE:	(516)766-3500	PHONE:	(516)766-3500
WASTE TYPE:		Date of Last Inspection:	

Inwood Material Terminal (IMT-Sheridan) **[30W39R]** NYUTM East: 605445 NYUTM North: 4496300

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W39R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	02/06/2015
		PERMIT EXPIRES:	---
OWNER:	William Haugland	CONTACT:	Billy Haugland
ADDRESS:	11 Commercial Street	ADDRESS:	1 Sheridan Boulevard
(*Mailing*):	Plainview, FL 11803	(*Location*):	Inwood, NY 11096
PHONE:	(516)336-6720	PHONE:	(516)371-9700
WASTE TYPE:	Rock, Brick, Concrete, Asphalt, Soil (Clean)	Date of Last Inspection:	10/12/2016

IROC Industries **[30W44R]** NYUTM East: 613403 NYUTM North: 4499290

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W44R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/20/2008
		PERMIT EXPIRES:	---
OWNER:	Michael A. Loguidice	CONTACT:	Michael A. Loguidice
ADDRESS:	240 Sunset Avenue	ADDRESS:	55 New Street
(*Mailing*):	Island Park, NY 11558	(*Location*):	Oceanside, NY 11572
PHONE:	(516)322-2887	PHONE:	(516)432-4281
WASTE TYPE:	Concrete, Rock, Asphalt, Brick, Soil (Clean)	Date of Last Inspection:	06/07/2018

JP Equipment Contracting	**[30W28R]**	NYUTM East: 613790	NYUTM North: 4497782
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W19R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	06/05/2003
		PERMIT EXPIRES:	---
OWNER:	James Paterson	CONTACT:	James Paterson
ADDRESS:	1144 Washington Place	ADDRESS:	3572 Hampton Road
(*Mailing*):	Baldwin, NY 11510	(*Location*):	Oceanside, NY 11572
PHONE:	(516)223-6881	PHONE:	(516)763-5234
WASTE TYPE:	Soil (Clean), Rock, Concrete	Date of Last Inspection:	

Long Island Electric Utility Servco LLC	**[30W27R]**	NYUTM East: 625600	NYUTM North: 4513600
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	128240017102001
REGULATORY STATUS:	Registration	PERMIT ISSUED:	04/19/2010
		PERMIT EXPIRES:	---
OWNER:	National Grid	CONTACT:	Wei Chiang
ADDRESS:	175 East Old Country Road	ADDRESS:	175 East Old Country Road
(*Mailing*):	Hicksville, NY 11801	(*Location*):	Hicksville, NY 11801
PHONE:	(516)545-2401	PHONE:	(516)391-6133
WASTE TYPE:	Non-petroleum Contaminated Soil	Date of Last Inspection:	08/03/2017

Nassau Ready Mix Corp (Glen Cove)	**[30W24R]**	NYUTM East: 614878	NYUTM North: 4524291
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W24R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/08/2003
		PERMIT EXPIRES:	---
OWNER:	Frank Sciarrino	CONTACT:	Stephen Kelly
ADDRESS:	1 Sheridan Blvd	ADDRESS:	47 Herb Hill road
(*Mailing*):	Inwood, NY 11096	(*Location*):	Glen Cove, NY 11542
PHONE:	(516)671-1842	PHONE:	(516)671-1842
WASTE TYPE:	Concrete, Asphalt, Soil (Clean), Rock, Brick	Date of Last Inspection:	03/30/2017

Rason Asphalt - Glen Cove	**[30W03R]**	NYUTM East: 614837	NYUTM North: 4524054
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W03R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	04/19/1995
		PERMIT EXPIRES:	---
OWNER:	Nassau Asphalt Supply Corp	CONTACT:	James Haney
ADDRESS:	PO Box 530	ADDRESS:	44 Morris Ave
(*Mailing*):	Old Bethpage, NY 11804	(*Location*):	Glen Cove, NY 11542
PHONE:	(631)293-6210	PHONE:	(516)671-1500
WASTE TYPE:	Asphalt, Concrete	Date of Last Inspection:	03/30/2017

Rason Asphalt - North Lawrence	**[30W04R]**	NYUTM East: 606278	NYUTM North: 4513610
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W04R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	04/19/1995
		PERMIT EXPIRES:	---
OWNER:	Nassau Asphalt Supply Corp	CONTACT:	James Haney
ADDRESS:	PO Box 530	ADDRESS:	4 Johnson Road
(*Mailing*):	Old Bethpage, NY 11804	(*Location*):	North Lawrence, NY 11559
PHONE:	(516)293-6210	PHONE:	(516)239-7880
WASTE TYPE:	Asphalt	Date of Last Inspection:	

Rock Crush Recycling LLC	**[30W48R]**	NYUTM East: 620845	NYUTM North: 4512544
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W48R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	---
		PERMIT EXPIRES:	---
OWNER:	Christopher Stasi	CONTACT:	
ADDRESS:	7 Frances Drive	ADDRESS:	478 Grand Blvd
(*Mailing*):	Muttontown, NY 11791	(*Location*):	Westbury, NY 11590
PHONE:	(516)334-7625	PHONE:	(516)334-7625
WASTE TYPE:	Concrete, Asphalt, Brick, Soil (Clean)	Date of Last Inspection:	11/20/2018

Seville Central Mix	**[30W54R]**	NYUTM East: 630787	NYUTM North: 4512441
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W54R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	08/29/2012
		PERMIT EXPIRES:	---
OWNER:	Seville Central Mix Corp.	CONTACT:	MJ McCarthy
ADDRESS:	157 Albany Avenue	ADDRESS:	635 Round Swamp Road
(*Mailing*):	Freeport, NY 11520	(*Location*):	Bethpage, NY 11714
PHONE:	(516)868-3000	PHONE:	(516)868-3000
WASTE TYPE:	Concrete	Date of Last Inspection:	09/08/2016

South Island Industries	**[30W15R]**	NYUTM East: 606273	NYUTM North: 4498313
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W15R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	12/16/1998
		PERMIT EXPIRES:	---
OWNER:	Bill Haughland	CONTACT:	Tim Kenney
ADDRESS:	11 Commercial Street	ADDRESS:	2 Rason Rd
(*Mailing*):	Plainview, NY 11803	(*Location*):	Inwood, NY 11096
PHONE:	(516)336-6720	PHONE:	(516)371-1842
WASTE TYPE:	Concrete, Soil (Clean), Rock	Date of Last Inspection:	

Stasi Brothers Asphalt Corp	**[30W43R]**	NYUTM East: 619551	NYUTM North: 4512649
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W43R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	03/13/2008
		PERMIT EXPIRES:	---
OWNER:	Alison Pellegrino	CONTACT:	Christopher Stasi
ADDRESS:	435 Maple Avenue	ADDRESS:	422 Maple Ave
(*Mailing*):	Westbury, NY 11590	(*Location*):	Westbury, NY 11590
PHONE:	(516)334-1229	PHONE:	(516)334-1229
WASTE TYPE:	Rock, Concrete, Sand, Soil (Clean)	Date of Last Inspection:	10/13/2016

T&D Associates	**[30W31R]**	NYUTM East: 614046	NYUTM North: 4498463
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W31R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/07/2004
		PERMIT EXPIRES:	---
OWNER:	T&D Associates Ltd	CONTACT:	Thomas Fantozzi
ADDRESS:	4 Petit Place	ADDRESS:	Notre Dame Drive
(*Mailing*):	Island Park, NY 11558	(*Location*):	Oceanside, NY 11572
PHONE:	(516)889-4714	PHONE:	(516)889-4714
WASTE TYPE:	Soil (Clean), Concrete, Asphalt, Wood (Clean), Rock, Brick, Construction & Demolition Debris	Date of Last Inspection:	

Truckin Construction Corp	**[30W51R]**	NYUTM East: 613962	NYUTM North: 4521126
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W51R
REGULATORY STATUS:		PERMIT ISSUED:	---
		PERMIT EXPIRES:	---
OWNER:	David & JoAnn Johansen	CONTACT:	JoAnn Johansen
ADDRESS:	1 Maple Street	ADDRESS:	450 Shore Road
(*Mailing*):	Glen Head, NY 11545	(*Location*):	Glenwood Landing, NY 11547
PHONE:	(516)322-6500	PHONE:	(516)674-3943
WASTE TYPE:	Wood (Clean), Wood (Brush/ Branches/ Trees/ Stumps), Metals (Ferrous), Metals (Non-Ferrous), Soil (Clean)	Date of Last Inspection:	09/08/2016

Twin County Recycling Corp	**[30W17R]**	NYUTM East: 622837	NYUTM North: 4513772
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W17R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/29/1999
		PERMIT EXPIRES:	---
OWNER:	Twin County Recycling Corp	CONTACT:	William McEvoy
ADDRESS:	385 West John Street	ADDRESS:	449 West John Street
(*Mailing*):	Hicksville, NY 11801	(*Location*):	Hicksville, NY 11802
PHONE:	(516)827-6900	PHONE:	(516)827-6900
WASTE TYPE:	Concrete, Soil (Clean), Rock, Metals (Non-Ferrous), Metals (Ferrous)	Date of Last Inspection:	03/29/2017

NYS DEC **REGION 1**
County: **Suffolk**

20 Arthur Avenue Associates LLC	**[52W69R]**	NYUTM East: 674862	NYUTM North: 4515972
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	---
REGULATORY STATUS:	Registration	PERMIT ISSUED:	---
		PERMIT EXPIRES:	---
OWNER:	20 Arthur Avenue Associates	CONTACT:	Michael Gulino
ADDRESS:	1775 Route 25	ADDRESS:	20 Arthur Avenue
(*Mailing*):	Ridge, NY 11761	(*Location*):	Brookhaven, NY 11719
PHONE:	(631)924-0644	PHONE:	(631)924-0644
WASTE TYPE:	Asphalt, Concrete, Soil (Clean), Rock, Brick, Wood (Brush/ Branches/ Trees/ Stumps)	Date of Last Inspection:	12/18/2018

A & R Materials Inc.	**[52C60289]**	NYUTM East: 670612	NYUTM North: 4523290
ACTIVITY DESCRIPTION:	CDDHRF - uncontaminated soil sand gravel rock - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	0289
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/20/2020
		PERMIT EXPIRES:	10/20/2025
OWNER:	Robert Bergold	CONTACT:	
ADDRESS:	3308 NY - 112	ADDRESS:	North Dunton Avenue
(*Mailing*):	Medford, NY 11763	(*Location*):	Medford, NY 11763
PHONE:	(516)903-7776	PHONE:	(516)903-7776
WASTE TYPE:	Soil (Clean), Rock, Sand, Gravel	Date of Last Inspection:	

All Island Mason Supply Inc	**[52W144R]**	NYUTM East: 644378	NYUTM North: 4526368
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147340019500001
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/28/2008
		PERMIT EXPIRES:	---
OWNER:	Michael Nasti	CONTACT:	Michael Nasti
ADDRESS:	180 Townline Road	ADDRESS:	180 Townline Road
(*Mailing*):	Kings Park, NY 11754	(*Location*):	Kings Park, NY 11754
PHONE:	(516)807-8771	PHONE:	(631)807-8771
WASTE TYPE:	Brick, Soil (Clean), Concrete, Rock	Date of Last Inspection:	

Bedrock Industries Corp	**[52W101R]**	NYUTM East: 673033	NYUTM North: 4529360
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W101R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/27/2000
		PERMIT EXPIRES:	---
OWNER:	Mario Pulvirenti	CONTACT:	Mario Pulvirenti
ADDRESS:	2298 New York Avenue	ADDRESS:	1 Railroad Track Road
(*Mailing*):	Huntington, NY 11746	(*Location*):	Greenlawn, NY 11740
PHONE:	(631)673-2202	PHONE:	(631)757-5511
WASTE TYPE:	Asphalt, Concrete, Soil (Clean), Rock	Date of Last Inspection:	

Belli Contracting Company Inc **[52W81R]** NYUTM East: 644878 NYUTM North: 4518134

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W81R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	04/14/1999
		PERMIT EXPIRES:	---
OWNER:	Angelo Belli	CONTACT:	Richard Belli
ADDRESS:	885 Crooked Hill Road	ADDRESS:	885 Crook Hill Road
(*Mailing*):	W. Brentwood, NY 11717	(*Location*):	Brentwood, NY 11717
PHONE:	(631)667-7021	PHONE:	(631)273-3121
WASTE TYPE:	Asphalt, Concrete, Soil (Clean), Wood (Brush/ Branches/ Trees/ Stumps), Wood (Unadulterated), Brick, Rock, Sand, Metals (Ferrous), Metals (Non-Ferrous)	Date of Last Inspection:	08/09/2019

Bistrian Materials Inc **[52W129R]** NYUTM East: 755786 NYUTM North: 4548027

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W129R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/24/2006
		PERMIT EXPIRES:	---
OWNER:	Bistrian Materials Inc	CONTACT:	Patrick Bistrian, III
ADDRESS:	175 Spring-Fireplace Road	ADDRESS:	86 Industrial Road
(*Mailing*):	East Hampton, NY 11937	(*Location*):	Montauk, NY 11954
PHONE:	(631)324-7950	PHONE:	(631)324-7950
WASTE TYPE:	Soil (Clean), Concrete, Wood (Brush/ Branches/ Trees/ Stumps)	Date of Last Inspection:	

Bistrian Materials Inc **[52W88R]** NYUTM East: 737721 NYUTM North: 4540726

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W88R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/19/1999
		PERMIT EXPIRES:	---
OWNER:	Bistrian Materials Inc.	CONTACT:	Patrick Bistrian, III
ADDRESS:	175 Springs-Fireplace Road	ADDRESS:	175 Springs-Fireplace Road
(*Mailing*):	East Hampton, NY 11937	(*Location*):	East Hampton, NY 11937
PHONE:	(631)324-7950	PHONE:	(631)324-7950
WASTE TYPE:	Soil (Clean), Concrete, Wood (Brush/ Branches/ Trees/ Stumps)	Date of Last Inspection:	

Bodkin Excavating Inc **[52W155R]** NYUTM East: 673969 NYUTM North: 4515790

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W155R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	04/30/2010
		PERMIT EXPIRES:	---
OWNER:	Richard Bodkin	CONTACT:	Richard Bodkin
ADDRESS:	P O Box 624	ADDRESS:	1795 Montauk Hwy
(*Mailing*):	Patchogue, NY 11772	(*Location*):	Bellport, NY 11713
PHONE:	(631)286-2251	PHONE:	(631)286-2251
WASTE TYPE:	Concrete	Date of Last Inspection:	01/22/2019

Brookhaven Waste Management Facility	**[52C10226]**	NYUTM East: 675100	NYUTM North: 4518600
ACTIVITY DESCRIPTION:	CDDHRF - concrete rock brick - registration		
OWNER TYPE:	Municipal	360 PERMIT NUMBER:	147220076100002
REGULATORY STATUS:	Registration	PERMIT ISSUED:	01/28/2020
		PERMIT EXPIRES:	01/27/2025
OWNER:	Town of Brookhaven	CONTACT:	Michael DesGaines
ADDRESS:	One Independence Hill	ADDRESS:	350 Horseblock Road
(*Mailing*):	Farmingville, NY 11738	(*Location*):	Yaphank, NY 11719
PHONE:	(631)451-9013	PHONE:	(631)286-8551
WASTE TYPE:	Concrete	Date of Last Inspection:	

Brookhaven Waste Management Facility	**[52W131R]**	NYUTM East: 674593	NYUTM North: 4518097
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Municipal	360 PERMIT NUMBER:	147220076100002
REGULATORY STATUS:	Registration	PERMIT ISSUED:	02/06/2007
		PERMIT EXPIRES:	---
OWNER:	Town of Brookhaven	CONTACT:	Michael DesGaines
ADDRESS:	One Independence Hill	ADDRESS:	350 Horseblock Road
(*Mailing*):	Farmingville, NY 11738	(*Location*):	Yaphank, NY 11719
PHONE:	(631)451-9013	PHONE:	(631)286-8551
WASTE TYPE:	Concrete	Date of Last Inspection:	

Cardo Site Development Storage Yard	**[52C20272]**	NYUTM East: 701710	NYUTM North: 4523433
ACTIVITY DESCRIPTION:	CDDHRF - asphalt pavement and millings - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52C10266
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/22/2019
		PERMIT EXPIRES:	05/21/2024
OWNER:	36-38 OCR LLC	CONTACT:	
ADDRESS:	PO Box 506	ADDRESS:	36 & 38 Old Country Road
(*Mailing*):	Quogue, NY 11959	(*Location*):	Quogue, NY 11959
PHONE:	(631)653-4377	PHONE:	(631)653-4377
WASTE TYPE:	Asphalt, Asphalt Millings	Date of Last Inspection:	

Cardo Site Development Storage Yard	**[52C10272]**	NYUTM East: 701710	NYUTM North: 4523433
ACTIVITY DESCRIPTION:	CDDHRF - concrete rock brick - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52C10266
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/22/2019
		PERMIT EXPIRES:	05/21/2024
OWNER:	36-38 OCR LLC	CONTACT:	
ADDRESS:	PO Box 506	ADDRESS:	36 & 38 Old Country Road
(*Mailing*):	Quogue, NY 11959	(*Location*):	Quogue, NY 11959
PHONE:	(631)653-4377	PHONE:	(631)653-4377
WASTE TYPE:	Concrete, Brick, Rock	Date of Last Inspection:	

Cardo Site Development Storage Yard	**[52C60272]**	NYUTM East: 701710	NYUTM North: 4523433
ACTIVITY DESCRIPTION:	CDDHRF - uncontaminated soil sand gravel rock - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52C10266
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/22/2019
		PERMIT EXPIRES:	05/21/2024
OWNER:	36-38 OCR LLC	CONTACT:	
ADDRESS:	PO Box 506	ADDRESS:	36 & 38 Old Country Road
(*Mailing*):	Quogue, NY 11959	(*Location*):	Quogue, NY 11959
PHONE:	(631)653-4377	PHONE:	(631)653-4377
WASTE TYPE:	Gravel, Soil (Clean), Sand	Date of Last Inspection:	

CB Recycling	**[52W86R]**	NYUTM East: 635740	NYUTM North: 4509924
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W86R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/20/1999
		PERMIT EXPIRES:	---
OWNER:	John Cannetti	CONTACT:	John Cannetti
ADDRESS:	PO Box 1265	ADDRESS:	301 Edison Ave
(*Mailing*):	West Babylon, NY 11704	(*Location*):	West Farmingdale, NY 11702
PHONE:	(631)419-1806	PHONE:	(631)419-1806
WASTE TYPE:	Concrete, Rock, Soil (Clean), Wood (Brush/ Branches/ Trees/ Stumps), Construction & Demolition Debris, Wood (Chips)	Date of Last Inspection:	

Chesterfield Associates	**[52W14R]**	NYUTM East: 695328	NYUTM North: 4520050
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W14R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	07/21/2009
		PERMIT EXPIRES:	---
OWNER:	E. Davies Allan	CONTACT:	Seth Allen
ADDRESS:	PO Box 1229	ADDRESS:	56 South Country Rd.
(*Mailing*):	West Hampton, NY 11978	(*Location*):	West Hampton Beach, NY 11978
PHONE:	(631)288-5100	PHONE:	(631)288-5100
WASTE TYPE:	Concrete, Soil (Clean), Wood (Clean)	Date of Last Inspection:	

Con-strux LLC (Lindenhurst)	**[52W138R]**	NYUTM East: 639836	NYUTM North: 4506215
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W138R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	09/02/2008
		PERMIT EXPIRES:	---
OWNER:	Sandy Nicolia	CONTACT:	Marc Bretz
ADDRESS:		ADDRESS:	690 Muncy Street
(*Mailing*):	,	(*Location*):	Lindenhurst, NY 11757
PHONE:	(516)333-6144	PHONE:	(516)333-3133
WASTE TYPE:	Brick, Rock, Concrete, Asphalt, Soil (Clean)	Date of Last Inspection:	02/22/2018

Corazzini Asphalt, Inc.	**[52C10280]**	NYUTM East: 710319	NYUTM North: 4545262
ACTIVITY DESCRIPTION:	CDDHRF - concrete rock brick - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W68R
REGULATORY STATUS:	Application	PERMIT ISSUED:	07/02/2019
		PERMIT EXPIRES:	07/01/2024
OWNER:	Corazzini Asphalt, Inc.	CONTACT:	Cheryl Corazzini
ADDRESS:	PO Box 1281,	ADDRESS:	6245 Cox Lane, P.O. Box 1281
(*Mailing*):	Cutchogue, NY 11935	(*Location*):	Cutchogue, NY 11935
PHONE:	(631)734-5600	PHONE:	(631)734-5600
WASTE TYPE:	Concrete, Rock	Date of Last Inspection:	

Corazzini Asphalt, Inc.	**[52C20280]**	NYUTM East: 710319	NYUTM North: 4545262
ACTIVITY DESCRIPTION:	CDDHRF - asphalt pavement and millings - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W68R
REGULATORY STATUS:	Application	PERMIT ISSUED:	07/02/2019
		PERMIT EXPIRES:	07/01/2024
OWNER:	Corazzini Asphalt, Inc.	CONTACT:	Cheryl Corazzini
ADDRESS:	PO Box 1281,	ADDRESS:	6245 Cox Lane, P.O. Box 1281
(*Mailing*):	Cutchogue, NY 11935	(*Location*):	Cutchogue, NY 11935
PHONE:	(631)734-5600	PHONE:	(631)734-5600
WASTE TYPE:	Asphalt	Date of Last Inspection:	

Corazzini Asphalt, Inc.	**[52C60280]**	NYUTM East: 710319	NYUTM North: 4545262
ACTIVITY DESCRIPTION:	CDDHRF - uncontaminated soil sand gravel rock - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W68R
REGULATORY STATUS:	Application	PERMIT ISSUED:	07/02/2019
		PERMIT EXPIRES:	07/01/2024
OWNER:	Corazzini Asphalt, Inc.	CONTACT:	Cheryl Corazzini
ADDRESS:	PO Box 1281,	ADDRESS:	6245 Cox Lane, P.O. Box 1281
(*Mailing*):	Cutchogue, NY 11935	(*Location*):	Cutchogue, NY 11935
PHONE:	(631)734-5600	PHONE:	(631)734-5600
WASTE TYPE:	Soil (Clean), Sand, Gravel	Date of Last Inspection:	

Custom Earth Recycling LLC	**[52W119R]**	NYUTM East: 662625	NYUTM North: 4533205
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W119R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	12/01/2003
		PERMIT EXPIRES:	---
OWNER:	John Watral	CONTACT:	John Watral
ADDRESS:	45 South Fourth Street	ADDRESS:	45 South Fourth Street
(*Mailing*):	Bayshore, NY 11706	(*Location*):	Bayshore, NY 11706
PHONE:	(631)586-8300	PHONE:	(631)586-8300
WASTE TYPE:	Wood (Brush/ Branches/ Trees/ Stumps), Wood (Chips)	Date of Last Inspection:	07/12/2019

Cutchogue Materials and Recycling	**[52W169R]**	NYUTM East: 710025	NYUTM North: 4544639
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W169R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/15/2010
		PERMIT EXPIRES:	---
OWNER:	Cutchogue Materials and Recycling	CONTACT:	Richard Delea
ADDRESS:	444 Elwood Rd	ADDRESS:	350 Commerce Drive
(*Mailing*):	East Northport, NY 11731	(*Location*):	Cutchogue, NY 11935
PHONE:	(516)885-5952	PHONE:	(631)734-8049
WASTE TYPE:	Asphalt, Concrete, Wood (Brush/ Branches/ Trees/ Stumps), Wood (Chips)	Date of Last Inspection:	08/02/2017

D'Agostino Brothers Enterprises Inc	**[52W100R]**	NYUTM East: 645742	NYUTM North: 4525777
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W100R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	06/22/2001
		PERMIT EXPIRES:	---
OWNER:	D'Agostino Brothers Enterprises, Inc.	CONTACT:	Steven D'Agostino
ADDRESS:	133 Old Northport Road	ADDRESS:	133 Old Northport Road
(*Mailing*):	Kings Park, NY 11754	(*Location*):	Kings Park, NY 11754
PHONE:	(631)544-4066	PHONE:	(631)544-4066
WASTE TYPE:	Asphalt, Concrete, Brick, Soil (Clean)	Date of Last Inspection:	

Delalio Asphalt	**[52W130R]**	NYUTM East: 719912	NYUTM North: 4530467
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W130R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/27/2006
		PERMIT EXPIRES:	---
OWNER:	Delalio Asphalt	CONTACT:	Perry DeLalio III
ADDRESS:	16 Roses Grove Rd	ADDRESS:	224 N. Main St.
(*Mailing*):	Southampton, NY 11968	(*Location*):	Southampton, NY 11968
PHONE:	(631)287-9588	PHONE:	(631)287-9588
WASTE TYPE:	Asphalt, Concrete, Construction & Demolition Debris	Date of Last Inspection:	

East Coast Mines	**[52W36R]**	NYUTM East: 701902	NYUTM North: 4525498
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W36R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	01/24/1996
		PERMIT EXPIRES:	---
OWNER:	John Tintle	CONTACT:	John Tintle
ADDRESS:	PO Box 1545	ADDRESS:	Rt 2 Lewis Road
(*Mailing*):	East Hampton, NY 11937	(*Location*):	East Quogue, NY 11942
PHONE:	(631)653-5445	PHONE:	(631)653-5445
WASTE TYPE:	Concrete, Wood (Clean), Wood (Brush/ Branches/ Trees/ Stumps), Asphalt	Date of Last Inspection:	

Ed Barsic Jr	**[52W110R]**	NYUTM East: 636066	NYUTM North: 4510480
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W110R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/24/2001
		PERMIT EXPIRES:	---
OWNER:	Ed Barsic Jr.	CONTACT:	Ed Barsic
ADDRESS:	180 Dale Street	ADDRESS:	170 Field Street
(*Mailing*):	West Babylon, NY 11704	(*Location*):	West Babylon, NY 11704
PHONE:	(631)249-4310	PHONE:	(631)831-1333
WASTE TYPE:	Soil (Clean), Sand, Wood (Brush/ Branches/ Trees/ Stumps), Gravel	Date of Last Inspection:	

Green Meadows LLC	**[52W168R]**	NYUTM East: 688274	NYUTM North: 4533061
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W168R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/15/2010
		PERMIT EXPIRES:	---
OWNER:	Richard DeLea	CONTACT:	Richard Delea
ADDRESS:	444 Elwood Rd.	ADDRESS:	4083 Middle Country Road
(*Mailing*):	East Northport, NY 11731	(*Location*):	Calverton, NY 11933
PHONE:	(516)885-5952	PHONE:	(516)885-5952
WASTE TYPE:	Soil (Clean), Concrete, Asphalt, Wood (Unadulterated), Wood (Brush/ Branches/ Trees/ Stumps)	Date of Last Inspection:	

Hololob Industries Inc.	**[52M10302]**	NYUTM East: 676180	NYUTM North: 453231
ACTIVITY DESCRIPTION:	CDDHRF - uncontaminated soil sand gravel rock - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W149R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/31/2019
		PERMIT EXPIRES:	10/31/2021
OWNER:	Edward Charles Hololob	CONTACT:	Edward Charles Hololob
ADDRESS:	275 East Main Street	ADDRESS:	275 East Main Street
(*Mailing*):	Yaphank, NY 11980	(*Location*):	Yaphank, NY 11980
PHONE:	(631)448-7256	PHONE:	(631)310-8686
WASTE TYPE:	Soil (Clean)	Date of Last Inspection:	

Horton Avenue Materials	**[52W135R]**	NYUTM East: 693600	NYUTM North: 4534554
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W135R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	10/17/2008
		PERMIT EXPIRES:	---
OWNER:	Horton Avenue Materials	CONTACT:	Daniel J. Watts
ADDRESS:	229 Horton Avenue	ADDRESS:	229 Horton Ave.
(*Mailing*):	Riverhead, NY 11901	(*Location*):	Riverhead, NY 11901
PHONE:	(631)727-6325	PHONE:	(631)727-6325
WASTE TYPE:	Concrete, Brick, Rock, Soil (Clean), Asphalt, Wood (Clean)	Date of Last Inspection:	

Hubbard Sand & Gravel Corp aka Northeast Recycling Corp	**[52W96R]**	NYUTM East: 646664	NYUTM North: 4513257
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W96R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/22/2001
		PERMIT EXPIRES:	---
OWNER:	William Paul Zorn	CONTACT:	Carl Zorn
ADDRESS:	1612 Fifth Avenue	ADDRESS:	1612 Fifth Avenue
(*Mailing*):	Bayshore, NY 11706	(*Location*):	Bayshore, NY 11706
PHONE:	(631)665-1005	PHONE:	(631)969-0282
WASTE TYPE:	Asphalt, Brick, Concrete, Rock, Soil (Clean), Wood (Brush/ Branches/ Trees/ Stumps), Wood (Chips)	Date of Last Inspection:	

Islandwide Recycling	**[52W95R]**	NYUTM East: 659938	NYUTM North: 4519496
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W95R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	02/22/2000
		PERMIT EXPIRES:	---
OWNER:	Islandwide Recycling Inc	CONTACT:	Michael Reali
ADDRESS:	PO Box 298	ADDRESS:	91-99 Kean St
(*Mailing*):	Woodbury, NY 11797	(*Location*):	West Babylon, NY 11704
PHONE:	(516)496-2002	PHONE:	(631)491-1305
WASTE TYPE:	Concrete, Asphalt, Rock, Brick, Wood (Brush/ Branches/ Trees/ Stumps), Metals (Ferrous), Metals (Non-Ferrous), Construction & Demolition Debris, Soil (Clean), Paper / Cardboard, Wood (Unadulterated), Waste Tires	Date of Last Inspection:	

Izzo Brothers	**[52W98R]**	NYUTM East: 646714	NYUTM North: 4525651
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W98R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	06/02/2000
		PERMIT EXPIRES:	---
OWNER:	Alexander Izzo	CONTACT:	Alexander Izzo
ADDRESS:	1 Harris Ct.	ADDRESS:	294-B Old Northport Road
(*Mailing*):	Commack, NY 11725	(*Location*):	Kings Park, NY 11754
PHONE:	(516)449-2526	PHONE:	(516)449-2526
WASTE TYPE:	Soil (Clean), Rock, Concrete, Brick, Asphalt	Date of Last Inspection:	07/20/2018

Jim Ski Construction	**[52W193]**	NYUTM East: 749445	NYUTM North: 4571434
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W193R
REGULATORY STATUS:	Application	PERMIT ISSUED:	03/22/2017
		PERMIT EXPIRES:	---
OWNER:	Jim Ski	CONTACT:	
ADDRESS:	2500 Montauk Ave. #352	ADDRESS:	Transfer Station Road
(*Mailing*):	Fishers Island, NY 06390	(*Location*):	Fishers Island, NY 06390
PHONE:	(860)334-3974	PHONE:	(860)334-3974
WASTE TYPE:	Asphalt, Brick, Concrete, Rock, Soil (Clean)	Date of Last Inspection:	

John T Montecalvo Inc	**[52W07R]**	NYUTM East: 694091	NYUTM North: 4523881
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W07R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	01/26/1995
		PERMIT EXPIRES:	---
OWNER:	John T. Montecalvo, Inc.	CONTACT:	John T. Montecalvo
ADDRESS:	PO Box 460	ADDRESS:	1217 Spenok - Riverhead Road
(*Mailing*):	Speonk, NY 11972	(*Location*):	Speonk, NY 11972
PHONE:	(631)325-1492	PHONE:	(631)325-0659
WASTE TYPE:	Asphalt	Date of Last Inspection:	

Jos. M. Troffa Landscape and Mason Supply Inc	**[52W142R]**	NYUTM East: 661279	NYUTM North: 4533001
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W142R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	08/12/2008
		PERMIT EXPIRES:	---
OWNER:	Joseph M. Troffa	CONTACT:	Joe & Sharon
ADDRESS:	11 Northridge Road,	ADDRESS:	70 Comsewogue Road, Suite 9
(*Mailing*):	East Setauket, NY 11733	(*Location*):	East Setauket, NY 11733
PHONE:	(631)928-4665	PHONE:	(631)928-4665
WASTE TYPE:	Rock, Brick, Concrete, Construction & Demolition Debris	Date of Last Inspection:	

JPD Masonry & Landscape Supply LLC	**[52C10284]**	NYUTM East: 633190	NYUTM North: 4511272
ACTIVITY DESCRIPTION:	CDDHRF - concrete rock brick - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W154R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	09/10/2019
		PERMIT EXPIRES:	09/09/2024
OWNER:	JPD Masonry & Landscaping Supply LLC	CONTACT:	
ADDRESS:	1637 Boadhollow Road	ADDRESS:	1637 Broad Hollow Road
(*Mailing*):	Farmingdale, NY 11735	(*Location*):	East Farmingdale, NY 11735
PHONE:	(516)779-4326	PHONE:	(516)779-4326
WASTE TYPE:	Concrete, Rock	Date of Last Inspection:	

Kenneth P Edwards	**[52W31R]**	NYUTM East: 646648	NYUTM North: 4513048
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W31R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	---
		PERMIT EXPIRES:	---
OWNER:	Kenneth P. Edwards	CONTACT:	Kenneth P. Edwards
ADDRESS:	1580 Fifth Avenue	ADDRESS:	1580 Fifth Ave.
(*Mailing*):	Bayshore, NY 11706	(*Location*):	Bayshore, NY 11706
PHONE:	(631)666-2578	PHONE:	(631)666-2578
WASTE TYPE:	Concrete, Brick, Soil (Clean), Rock	Date of Last Inspection:	

Kurrass Materials Inc (East Patchogue Contracting Corp)	**[52W45R]**	NYUTM East: 672189	NYUTM North: 4514814
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W45R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	07/26/1996
		PERMIT EXPIRES:	---
OWNER:	Norman K. Kurrass	CONTACT:	Norman K. Kurrass
ADDRESS:	PO Box 2182	ADDRESS:	90 Barthold Ave.
(*Mailing*):	East Patchogue, NY 11772	(*Location*):	East Patchogue, NY 11772
PHONE:	(631)286-0080	PHONE:	(631)286-0080
WASTE TYPE:	Asphalt, Brick, Concrete, Soil (Clean), Rock	Date of Last Inspection:	12/18/2018

Long Island Recycling Corp	**[52W164R]**	NYUTM East: 643025	NYUTM North: 4511952
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W164R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	09/24/2012
		PERMIT EXPIRES:	---
OWNER:	Ronald Cianciulli	CONTACT:	Ronald Cianciulli
ADDRESS:	136 East Bayberry Rd.	ADDRESS:	117 Brook Avenue
(*Mailing*):	Islip, NY 11751	(*Location*):	Deer Park, NY 11729
PHONE:	(631)514-1147	PHONE:	(631)514-1147
WASTE TYPE:	Asphalt, Brick, Concrete, Rock, Soil (Clean)	Date of Last Inspection:	

LyDel Asphalt Corp	**[52W170R]**	NYUTM East: 674368	NYUTM North: 4515811
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W170R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/23/2010
		PERMIT EXPIRES:	---
OWNER:	William Lyon	CONTACT:	William Lyon
ADDRESS:	19B Stiriz Rd	ADDRESS:	19B Stiriz Rd
(*Mailing*):	Brookhaven, NY 11719	(*Location*):	Brookhaven, NY 11719
PHONE:	(631)833-4276	PHONE:	(631)286-3222
WASTE TYPE:		Date of Last Inspection:	12/18/2018

Marcello Masonry	**[52W175R]**	NYUTM East: 723521	NYUTM North: 4550301
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W175R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	09/14/2011
		PERMIT EXPIRES:	---
OWNER:	Robert Marcello	CONTACT:	Robert Marcello
ADDRESS:	PO Box 1762	ADDRESS:	67 North Ferry Road
(*Mailing*):	Shelter Island, NY 11964	(*Location*):	Shelter Island, NY 11964
PHONE:	(631)872-7568	PHONE:	(631)749-0482
WASTE TYPE:	Concrete, Soil (Clean), Asphalt, Brick, Wood (Clean), Wood (Brush/ Branches/ Trees/ Stumps), Wood (Chips)	Date of Last Inspection:	

MPF Asphalt Recycling Inc	**[52W158R]**	NYUTM East: 645639	NYUTM North: 4526007
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W158R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	02/14/2011
		PERMIT EXPIRES:	---
OWNER:	Farino and Sons Asphalt Corp.	CONTACT:	Paul J Farino
ADDRESS:	201 Moreland Dr, Suite 2	ADDRESS:	137 Old Northport Road
(*Mailing*):	Hauppauge, NY 11788	(*Location*):	Kings Park, NY 11754
PHONE:	(631)543-7560	PHONE:	(631)543-7560
WASTE TYPE:	Brick, Asphalt, Concrete	Date of Last Inspection:	10/06/2016

Nassau Suffolk Materials Inc.	**[52C60313]**	NYUTM East: 644896	NYUTM North: 4514165
ACTIVITY DESCRIPTION:	CDDHRF - uncontaminated soil sand gravel rock - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	520313
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/18/2020
		PERMIT EXPIRES:	05/17/2025
OWNER:	George Condos	CONTACT:	
ADDRESS:	3 Sallys path	ADDRESS:	255 North Fehr Way
(*Mailing*):	Fort Salonga, NY 11768	(*Location*):	Bayshore, NY 11706
PHONE:	(516)790-8336	PHONE:	(631)462-1632
WASTE TYPE:	Soil (Clean), Sand, Gravel	Date of Last Inspection:	

Nassau Suffolk Materials Inc.	**[52C10313]**	NYUTM East: 644896	NYUTM North: 4514165
ACTIVITY DESCRIPTION:	CDDHRF - concrete rock brick - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	520313
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/18/2020
		PERMIT EXPIRES:	05/17/2025
OWNER:	George Condos	CONTACT:	
ADDRESS:	3 Sallys path	ADDRESS:	255 North Fehr Way
(*Mailing*):	Fort Salonga, NY 11768	(*Location*):	Bayshore, NY 11706
PHONE:	(516)790-8336	PHONE:	(631)462-1632
WASTE TYPE:	Concrete, Brick, Rock	Date of Last Inspection:	

Northport (V) Highway Department Staging Area	**[52R30R]**	NYUTM East: 639443	NYUTM North: 4530898
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Municipal	360 PERMIT NUMBER:	52R30R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	---
		PERMIT EXPIRES:	---
OWNER:	Incorporated Village of Northport	CONTACT:	Gene Guido
ADDRESS:	224 Main Street,	ADDRESS:	1 Ketcham Place, Clipper Drive on 2013 AR
(*Mailing*):	Northport, NY 11768	(*Location*):	Northport, NY 11768
PHONE:	(631)261-2370	PHONE:	(631)261-7502
WASTE TYPE:	Street Sweepings, Wood (Chips)	Date of Last Inspection:	

Pallets-R-Us Inc	**[52W162R]**	NYUTM East: 674328	NYUTM North: 4518871
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W162R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	08/23/2010
		PERMIT EXPIRES:	---
OWNER:	Thomas J. Sorge	CONTACT:	Thomas J. Sorge
ADDRESS:	555 Woodside Ave	ADDRESS:	555 Woodside Ave
(*Mailing*):	Bellport, NY 11713	(*Location*):	Bellport, NY 11713
PHONE:	(631)947-2500	PHONE:	(631)947-2500
WASTE TYPE:	Wood (Clean), Wood (Chips)	Date of Last Inspection:	

Pond Materials Corp	**[52W188R]**	NYUTM East: 658625	NYUTM North: 4518117
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W188R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	01/02/2015
		PERMIT EXPIRES:	---
OWNER:	Pond Materials Corp.	CONTACT:	Marc Underberg
ADDRESS:	2164 Pond Road	ADDRESS:	2164 Pond Road
(*Mailing*):	Ronkonkoma, NY 11779	(*Location*):	Ronkonkoma, NY 11779
PHONE:	(516)922-3940	PHONE:	
WASTE TYPE:	Asphalt, Brick, Concrete, Rock, Soil (Clean), Sand	Date of Last Inspection:	

Posillico Materials East LLC	**[52W41R]**	NYUTM East: 664262	NYUTM North: 4519776
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:		360 PERMIT NUMBER:	52W41R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/02/2017
		PERMIT EXPIRES:	---
OWNER:		CONTACT:	
ADDRESS:		ADDRESS:	615 Furrows Road
(*Mailing*):	,	(*Location*):	Holtsville, NY 11742
PHONE:		PHONE:	(631)249-1872
WASTE TYPE:	Asphalt, Brick, Concrete, Soil (Clean), Rock	Date of Last Inspection:	

Premium Mulch & Materials Inc	**[52W163R]**	NYUTM East: 669843	NYUTM North: 4525278
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W163R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	08/23/2010
		PERMIT EXPIRES:	---
OWNER:	Thomas J Sorge	CONTACT:	Thomas J Sorge
ADDRESS:	555 Woodside Ave	ADDRESS:	482 Mill Road
(*Mailing*):	Bellport, NY 11713	(*Location*):	Coram, NY 11727
PHONE:	(631)758-2360	PHONE:	(631)947-2500
WASTE TYPE:	Wood (Pallets & Crates), Wood (Clean), Wood (Chips), Wood (Brush/ Branches/ Trees/ Stumps)	Date of Last Inspection:	

Quogue (V) - Highway Yard	**[52W161R]**	NYUTM East: 701031	NYUTM North: 4523043
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Municipal	360 PERMIT NUMBER:	52W161R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	07/29/2010
		PERMIT EXPIRES:	---
OWNER:	Village of Quogue	CONTACT:	Randy Cardo
ADDRESS:	PO Box 926	ADDRESS:	40 Old Country Road
(*Mailing*):	Quogue, NY 11959	(*Location*):	Quogue, NY 11959
PHONE:	(631)653-4498	PHONE:	(631)653-4498
WASTE TYPE:	Wood (Brush/ Branches/ Trees/ Stumps)	Date of Last Inspection:	11/02/2016

Ralph Ave Highway Yard	**[52W91]**	NYUTM East: 640998	NYUTM North: 4506779
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Municipal	360 PERMIT NUMBER:	52W91R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	12/29/1999
		PERMIT EXPIRES:	---
OWNER:	Village of Babylon	CONTACT:	Skip Gardner
ADDRESS:	153 West Main Street	ADDRESS:	1 Ralph Avenue
(*Mailing*):	Babylon, NY 11702	(*Location*):	Babylon, NY 11702
PHONE:	(631)669-4878	PHONE:	(631)669-4878
WASTE TYPE:	Asphalt, Concrete	Date of Last Inspection:	

Rason Asphalt - Melville	**[52W24R]**	NYUTM East: 631801	NYUTM North: 4513458
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W24R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	08/28/2000
		PERMIT EXPIRES:	---
OWNER:	Nassau Asphalt Supply Corp.	CONTACT:	James Haney
ADDRESS:	PO Box 530	ADDRESS:	136 Spagnoli Road
(*Mailing*):	Old Bethpage, NY 11804	(*Location*):	Melville, NY 11747
PHONE:	(631)293-6210	PHONE:	(631)293-6210
WASTE TYPE:	Asphalt	Date of Last Inspection:	02/27/2018

Riley Excavating & Contracting Inc	**[52W65R]**	NYUTM East: 649335	NYUTM North: 4510984
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W65R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	03/05/1998
		PERMIT EXPIRES:	---
OWNER:	Russell Riley III	CONTACT:	Russell Riley III
ADDRESS:	195 South Denver Ave	ADDRESS:	195 South Denver Ave
(*Mailing*):	Bay Shore, NY 11706	(*Location*):	Bayshore, NY 11706
PHONE:	(631)665-0420	PHONE:	(631)665-0420
WASTE TYPE:	Concrete, Asphalt, Soil (Clean), Rock, Brick	Date of Last Inspection:	

Riverhead CB LLC	**[52C10251]**	NYUTM East: 695061	NYUTM North: 4534740
ACTIVITY DESCRIPTION:	CDDHRF - concrete rock brick - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	520251
REGULATORY STATUS:	Registration	PERMIT ISSUED:	09/17/2019
		PERMIT EXPIRES:	09/16/2024
OWNER:	Riverhead CB LLC	CONTACT:	
ADDRESS:	1146 Osborn Avenue	ADDRESS:	1521 Roanoke Ave
(*Mailing*):	Riverhead, NY 11901	(*Location*):	Riverhead, NY 11901
PHONE:	(631)727-0170	PHONE:	(631)727-0170
WASTE TYPE:	Concrete, Brick, Rock	Date of Last Inspection:	

Riverhead CB LLC	**[52C20251]**	NYUTM East: 695061	NYUTM North: 4534740
ACTIVITY DESCRIPTION:	CDDHRF - asphalt pavement and millings - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	520251
REGULATORY STATUS:	Registration	PERMIT ISSUED:	09/17/2019
		PERMIT EXPIRES:	09/16/2024
OWNER:	Riverhead CB LLC	CONTACT:	
ADDRESS:	1146 Osborn Avenue	ADDRESS:	1521 Roanoke Ave
(*Mailing*):	Riverhead, NY 11901	(*Location*):	Riverhead, NY 11901
PHONE:	(631)727-0170	PHONE:	(631)727-0170
WASTE TYPE:	Asphalt Pavement, Asphalt Millings	Date of Last Inspection:	

Riverhead CB LLC	**[52C60251]**	NYUTM East: 695061	NYUTM North: 4534740
ACTIVITY DESCRIPTION:	CDDHRF - uncontaminated soil sand gravel rock - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	520251
REGULATORY STATUS:	Registration	PERMIT ISSUED:	09/17/2019
		PERMIT EXPIRES:	09/16/2024
OWNER:	Riverhead CB LLC	CONTACT:	
ADDRESS:	1146 Osborn Avenue	ADDRESS:	1521 Roanoke Ave
(*Mailing*):	Riverhead, NY 11901	(*Location*):	Riverhead, NY 11901
PHONE:	(631)727-0170	PHONE:	(631)727-0170
WASTE TYPE:	Soil (Clean), Sand, Gravel, Rock	Date of Last Inspection:	

RJ Murray Enterprises Inc	**[52W172R]**	NYUTM East: 636329	NYUTM North: 4525855
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W172R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	01/23/2013
		PERMIT EXPIRES:	---
OWNER:	Ryan Murray	CONTACT:	Ryan Murray
ADDRESS:	131 Old Northport Road	ADDRESS:	131 Old Northport Road
(*Mailing*):	Kings Park, NY 11754`	(*Location*):	Kings Park, NY 11754
PHONE:	(516)813-7677	PHONE:	(631)544-4400
WASTE TYPE:	Asphalt, Brick, Concrete, Rock, Soil (Clean)	Date of Last Inspection:	

Roanoke Sand & Gravel Corp	**[52W03R]**	NYUTM East: 672123	NYUTM North: 4530030
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W03R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	06/06/1994
		PERMIT EXPIRES:	---
OWNER:	Roanoke Sand & Gravel Corp.	CONTACT:	James Barker
ADDRESS:	104 Rocky Point Road	ADDRESS:	104 Rocky Point Road
(*Mailing*):	Middle Island, NY 11953	(*Location*):	Middle Island, NY 11953
PHONE:	(631)924-4100	PHONE:	(631)924-4100
WASTE TYPE:	Soil (Clean), Wood (Chips)	Date of Last Inspection:	

Roberts Asphalt Company	**[52W166R]**	NYUTM East: 674786	NYUTM North: 4516116
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W166R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	09/23/2010
		PERMIT EXPIRES:	---
OWNER:	Joann Tew	CONTACT:	Patrick Tew
ADDRESS:	324 Gazzola Dr	ADDRESS:	1981 Montauk Highway
(*Mailing*):	E Patchogue, NY 11772	(*Location*):	Brookhaven, NY 11719
PHONE:	(631)475-1906	PHONE:	(631)475-1906
WASTE TYPE:	Concrete, Asphalt, Brick, Soil (Clean)	Date of Last Inspection:	12/18/2018

Sagaponack Sand & Gravel Corp	**[52W176R]**	NYUTM East: 728083	NYUTM North: 4536716
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W176R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	08/31/2011
		PERMIT EXPIRES:	---
OWNER:	Keith Grimes	CONTACT:	Susan Grimes
ADDRESS:	P.O. Box 964	ADDRESS:	32 Haines Path
(*Mailing*):	montauk, NY 11954	(*Location*):	Bridgehampton, NY 11932
PHONE:	(631)537-2252	PHONE:	(631)537-2252
WASTE TYPE:	Asphalt, Concrete, Soil (Clean), Wood (Brush/ Branches/ Trees/ Stumps), Wood (Chips), Rock	Date of Last Inspection:	

Savy's Recycling Inc	**[52W181R]**	NYUTM East: 654743	NYUTM North: 4525104
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W181R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/01/2013
		PERMIT EXPIRES:	---
OWNER:	Savy's Recycling Inc.	CONTACT:	Jon Savastano
ADDRESS:	27 Montclair Ave.	ADDRESS:	27 Montclair Ave
(*Mailing*):	St. James, NY 11780	(*Location*):	St. James, NY 11780
PHONE:	(631)544-0700	PHONE:	(631)979-8450
WASTE TYPE:	Asphalt, Brick, Concrete, Rock, Soil (Clean)	Date of Last Inspection:	

Scatt Materials Corp	**[52W115R]**	NYUTM East: 644077	NYUTM North: 4513777
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W115R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	08/12/2002
		PERMIT EXPIRES:	---
OWNER:	Scatt Materials Corp.	CONTACT:	Thomas Pratt
ADDRESS:	44 South Fourth Street	ADDRESS:	44 S Fourth Street
(*Mailing*):	Bayshore, NY 11706	(*Location*):	Bayshore, NY 11706
PHONE:	(631)586-0554	PHONE:	(631)586-0554
WASTE TYPE:	Soil (Clean), Asphalt	Date of Last Inspection:	

Shelter Island Recycling Transfer Station	**[52W73]**	NYUTM East: 722216	NYUTM North: 4550315
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Municipal	360 PERMIT NUMBER:	52W73R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	07/10/1998
		PERMIT EXPIRES:	---
OWNER:	Town of Shelter Island	CONTACT:	Brian Sherman
ADDRESS:	34 N Menantic Rd/ PO Box 1000	ADDRESS:	34 N Menantic Road
(*Mailing*):	Shelter Island, NY 11964-1000	(*Location*):	Shelter Island, NY 11964-1000
PHONE:	(631)749-1090	PHONE:	(631)749-1090
WASTE TYPE:	Wood (Brush/ Branches/ Trees/ Stumps)	Date of Last Inspection:	

Shelter Island Sand, Gravel & Construction	**[52W107R]**	NYUTM East: 722854	NYUTM North: 4550019
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W107R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	03/13/2002
		PERMIT EXPIRES:	---
OWNER:	Peder G. Larsen	CONTACT:	Peder G. Larsen
ADDRESS:	PO Box 2028	ADDRESS:	17 Bowditch Road
(*Mailing*):	Shelter Island, NY 11964	(*Location*):	Shelter Island, NY 11964
PHONE:	(631)749-1040	PHONE:	(631)749-1040
WASTE TYPE:	Concrete, Brick, Asphalt, Soil (Clean), Wood (Clean), Wood (Brush/ Branches/ Trees/ Stumps), Wood (Chips)	Date of Last Inspection:	

Sky Materials Corp.	**[52W80R]**	NYUTM East: 687412	NYUTM North: 4532821
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W80R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/09/2011
		PERMIT EXPIRES:	---
OWNER:	Calverton Industries	CONTACT:	Scott Pannulla
ADDRESS:	PO Box 302	ADDRESS:	4331 Middle Country Road
(*Mailing*):	Calverton, NY 11933	(*Location*):	Calverton, NY 11933
PHONE:	(631)208-2999	PHONE:	(631)208-2999
WASTE TYPE:	Asphalt, Brick, Concrete, Gravel, Rock, Soil (Clean), Wood (Unadulterated), Wood (Brush/ Branches/ Trees/ Stumps)	Date of Last Inspection:	

Skyline LLC	**[52W19R]**	NYUTM East: 661081	NYUTM North: 4533079
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W19R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	---
		PERMIT EXPIRES:	---
OWNER:	Louis J. Bove	CONTACT:	Jason Dworczyk
ADDRESS:	16 Hulse Road	ADDRESS:	56 Comsewogue Road
(*Mailing*):	East Setauket, NY 11733	(*Location*):	East Setauket, NY 11733
PHONE:	(631)331-8500	PHONE:	(631)403-4131
WASTE TYPE:	Asphalt, Concrete, Rock, Soil (Clean), Brick, Construction & Demolition Debris	Date of Last Inspection:	

South Shore Materials	**[52W06R]**	NYUTM East: 643956	NYUTM North: 4513941
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W06R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	01/11/1995
		PERMIT EXPIRES:	---
OWNER:	Augusiewicz Excavating Corp.	CONTACT:	Thomas Pratt
ADDRESS:	15 Washington Ave	ADDRESS:	60 South 4th Street
(*Mailing*):	Bay Shore, NY 11706	(*Location*):	Bayshore, NY 11706
PHONE:	(631)254-0024	PHONE:	(631)243-4905
WASTE TYPE:	Concrete, Asphalt, Brick, Construction & Demolition Debris, Rock, Soil (Clean)	Date of Last Inspection:	

Speonk Earth Recycling LLC	**[52C10319]**	NYUTM East: 433055	NYUTM North: 4523423
ACTIVITY DESCRIPTION:	CDDHRF - concrete rock brick - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W143R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	09/10/2020
		PERMIT EXPIRES:	09/09/2025
OWNER:	Alexander Porto	CONTACT:	
ADDRESS:	PO Box 5774	ADDRESS:	60 5th Ave
(*Mailing*):	Hauppauge, NY 11788	(*Location*):	Speonk, NY 11972
PHONE:	(631)445-5752	PHONE:	(631)586-8300
WASTE TYPE:	Brick, Concrete, Rock	Date of Last Inspection:	

Speonk Earth Recycling LLC	**[52C60319]**	NYUTM East: 433055	NYUTM North: 4523423
ACTIVITY DESCRIPTION:	CDDHRF - uncontaminated soil sand gravel rock - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W143R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	09/10/2020
		PERMIT EXPIRES:	09/09/2025
OWNER:	Alexander Porto	CONTACT:	
ADDRESS:	PO Box 5774	ADDRESS:	60 5th Ave
(*Mailing*):	Hauppauge, NY 11788	(*Location*):	Speonk, NY 11972
PHONE:	(631)445-5752	PHONE:	(631)586-8300
WASTE TYPE:	Gravel, Rock, Sand, Soil (Clean)	Date of Last Inspection:	

Star Ready Mix Inc **[52W171R]** NYUTM East: 669547 NYUTM North: 4520207

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W171R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/24/2010
		PERMIT EXPIRES:	---
OWNER:	Star Ready Mix, Inc.	CONTACT:	Thomas Hess
ADDRESS:	172 Peconic Ave	ADDRESS:	172 Peconic Ave
(*Mailing*):	Medford, NY 11763	(*Location*):	Medford, NY 11763
PHONE:	(631)289-8787	PHONE:	(631)289-8787
WASTE TYPE:	Asphalt, Soil (Clean), Concrete	Date of Last Inspection:	06/18/2018

Steven M Mezynieski **[52W124R]** NYUTM East: 717343 NYUTM North: 4531051

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W124R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	07/20/2004
		PERMIT EXPIRES:	---
OWNER:	Steven M. Mezynieski	CONTACT:	Steven M. Mezynieski
ADDRESS:	35675 Main Road	ADDRESS:	110 North Magee Street
(*Mailing*):	Orient, NY 11968	(*Location*):	Southampton, NY 11968
PHONE:	(631)204-0001	PHONE:	(631)204-0001
WASTE TYPE:	Concrete, Asphalt, Wood (Brush/ Branches/ Trees/ Stumps), Soil (Clean)	Date of Last Inspection:	

Stonco Materials **[52W136R]** NYUTM East: 669292 NYUTM North: 4523261

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W136R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/26/2007
		PERMIT EXPIRES:	---
OWNER:	Stephen Affatato	CONTACT:	Scott Roye/Stephen Affatato
ADDRESS:	73 Cederhurst Ave.	ADDRESS:	73 Cederhurst Ave.
(*Mailing*):	Medford, NY 11763	(*Location*):	Medford, NY 11763
PHONE:	(631)207-3478	PHONE:	(631)207-3478
WASTE TYPE:	Brick, Rock, Concrete, Sand, Soil (Clean), Asphalt, Wood (Brush/ Branches/ Trees/ Stumps), Metals (Ferrous), Metals (Non-Ferrous), Wood (Chips), Construction & Demolition Debris	Date of Last Inspection:	

Suffolk Soil Ltd **[52W104R]** NYUTM East: 684213 NYUTM North: 4520183

ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W104R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	---
		PERMIT EXPIRES:	---
OWNER:	Patrick Leary	CONTACT:	Patrick Leary
ADDRESS:	PO Box 465	ADDRESS:	640 Moriches-Middle Island Road
(*Mailing*):	Moriches, NY 11955	(*Location*):	Moriches, NY 11955
PHONE:	(631)874-0353	PHONE:	(631)874-0353
WASTE TYPE:	Soil (Clean)	Date of Last Inspection:	

TS Haulers	**[52W77R]**	NYUTM East: 689305	NYUTM North: 4533435
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W77R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	01/04/1999
		PERMIT EXPIRES:	---
OWNER:	Edward Partidge	CONTACT:	Ed Partridge
ADDRESS:	337 Edwards Ave	ADDRESS:	3968 Middle Country Road
(*Mailing*):	Calverton, NY 11933	(*Location*):	Calverton, NY 11933
PHONE:	(631)369-1265	PHONE:	(631)369-1265
WASTE TYPE:	Asphalt, Concrete, Metals (Ferrous), Metals (Non-Ferrous)	Date of Last Inspection:	

Watbro Recycling Inc	**[52W106R]**	NYUTM East: 644146	NYUTM North: 4513830
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W106R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	05/15/2001
		PERMIT EXPIRES:	---
OWNER:	John Watral	CONTACT:	John Watral
ADDRESS:	45 South Fourth Street	ADDRESS:	45 South Fourth Street
(*Mailing*):	North Bayshore, NY 11706	(*Location*):	Bayshore, NY 11706
PHONE:	(631)586-8300	PHONE:	(631)586-8300
WASTE TYPE:	Asphalt, Concrete	Date of Last Inspection:	

Westhampton Property Associates Inc	**[52W139R]**	NYUTM East: 694634	NYUTM North: 4523952
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W67R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	03/23/1998
		PERMIT EXPIRES:	---
OWNER:	Anthony Giaguinto	CONTACT:	Anthony Giaguinto
ADDRESS:	879 Long Island Ave	ADDRESS:	1220 Speonk-Riverhead Road
(*Mailing*):	Deer Park, NY 11729	(*Location*):	Speonk, NY 11972
PHONE:	(631)242-2567	PHONE:	(631)242-3595
WASTE TYPE:	Asphalt, Soil (Clean), Rock, Concrete, Brick	Date of Last Inspection:	

White Post Wholesale Growers	**[52W179R]**	NYUTM East: 633242	NYUTM North: 4523055
ACTIVITY DESCRIPTION:	z Retired - C&D processing - registration		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W179R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	11/25/2011
		PERMIT EXPIRES:	---
OWNER:	John Brigati	CONTACT:	John Brigati
ADDRESS:	400 W. Pulaski Rd	ADDRESS:	100 Railroad Street
(*Mailing*):	Huntington, NY 11743	(*Location*):	Huntington Station, NY 11746
PHONE:	(631)271-4141	PHONE:	(631)271-0147
WASTE TYPE:	Asphalt, Brick, Concrete, Rock, Soil (Clean)	Date of Last Inspection:	

APPENDIX A-3b
LIST OF ACTIVE AND RETIRED PERMITTED SOLID WASTE MANAGEMENT FACILITIES, NASSAU AND SUFFOLK COUNTIES

NYSDEC Division of Materials Management
downloaded 6/22/2021

NYS DEC **REGION 1**
County: **Nassau**

Daniel Finley Allen & Co Inc **[30M19]** NYUTM East: 621400 NYUTM North: 4513000

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	128220047900004
REGULATORY STATUS:	Permit	PERMIT ISSUED:	08/12/2015
		PERMIT EXPIRES:	11/03/2019
OWNER:	Daniel C. Allen	CONTACT:	Daniel C. Allen/John Allen
ADDRESS:	114 Sylvester Street	ADDRESS:	114 Sylvester Street
(*Mailing*):	Westbury, NY 11570	(*Location*):	Westbury, NY 11590
PHONE:	(516)333-5711	PHONE:	(516)333-5711
WASTE TYPE:	Construction & Demolition Debris, Metals (Ferrous), Metals (Non-Ferrous), Wood (Pallets & Crates), Asphalt, Brick, Concrete, Wood (Clean), Wood (Unadulterated), Paper / Cardboard, Plastics	Date of Last Inspection:	07/31/2019

Framitz Inc **[30W22]** NYUTM East: 613908 NYUTM North: 4497674

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	128200153900009
REGULATORY STATUS:	SAPA	PERMIT ISSUED:	11/02/2006
		PERMIT EXPIRES:	11/01/2009
OWNER:	Framitz Inc/Patriot Recycling LLC	CONTACT:	Donna Galligan
ADDRESS:	3631 Hampton Road	ADDRESS:	3631 Hampton Road
(*Mailing*):	Oceanside, NY 11572	(*Location*):	Oceanside, NY 11572
PHONE:	(516)766-6696	PHONE:	(516)766-6696
WASTE TYPE:	Construction & Demolition Debris, Paper / Cardboard, Commingled Containers, Commingled Paper, Wood (Brush/ Branches/ Trees/ Stumps), Metals (Ferrous), Metals (Non-Ferrous)	Date of Last Inspection:	06/19/2018

Gershow Recycling of Freeport **[30CP0102]** NYUTM East: 620721 NYUTM North: 4500607

ACTIVITY DESCRIPTION:	CDDHRF - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	128200487600001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	12/15/2018
		PERMIT EXPIRES:	12/14/2021
OWNER:	Gershow Recycling of Freeport Inc	CONTACT:	Ray Colon
ADDRESS:	71 Peconic Avenue	ADDRESS:	143 Hanse Avenue
(*Mailing*):	Medford, NY 11763	(*Location*):	Freeport, NY 11520
PHONE:	(631)289-6188	PHONE:	(516)634-0644
WASTE TYPE:	Construction & Demolition Debris, Concrete, Rock, Paper/Cardboard, Metals (Aluminum), Metals (Ferrous), Metals (Non-Ferrous), Wood (Unadulterated)	Date of Last Inspection:	

Gershow Recycling of Valley Stream **[30W10]** NYUTM East: 610317 NYUTM North: 4501869

ACTIVITY DESCRIPTION:	CDDHRF - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30W10R
REGULATORY STATUS:	Permit	PERMIT ISSUED:	11/14/2017
		PERMIT EXPIRES:	11/13/2022
OWNER:	Gershow Recycling of Valley Stream	CONTACT:	Ray Colon
ADDRESS:	71 Peconic Ave	ADDRESS:	97 East Hawthorne Avenue
(*Mailing*):	Medford, NY 11763	(*Location*):	Valley Stream, NY 11580
PHONE:	(516)825-7244	PHONE:	(516)825-7244
WASTE TYPE:	Construction & Demolition Debris, Rock, Wood (Clean), Metals (Non-Ferrous), Metals (Ferrous), Paper / Cardboard	Date of Last Inspection:	

Liotta Brothers Recycling Corp **[30W08]** NYUTM East: 614027 NYUTM North: 4497512

ACTIVITY DESCRIPTION: z Retired - C&D processing - permit
OWNER TYPE: Private
REGULATORY STATUS: None

360 PERMIT NUMBER: 30W08R
PERMIT ISSUED: 06/12/2019
PERMIT EXPIRES: 06/11/2024

OWNER: Victor Liotta, Jr.
ADDRESS: 3966 Long Beach Road
(*Mailing*): Island Park, NY 11558
PHONE: (516)523-0396

CONTACT: Victor Liotta, Jr.
ADDRESS: 4014 Daly Boulevard
(*Location*): Oceanside, NY 11572
PHONE: (516)855-0235

WASTE TYPE: Construction & Demolition Debris, Wood (Brush/ Branches/ Trees/ Stumps), Wood (Chips), Wood (Unadulterated), Asphalt, Brick, Concrete, Soil (Clean), Street Sweepings, Roofing Shingles

Date of Last Inspection:

Omni Recycling of Westbury Inc **[30M10]** NYUTM East: 620156 NYUTM North: 4512755

ACTIVITY DESCRIPTION: z Retired - C&D processing - permit
OWNER TYPE: Private
REGULATORY STATUS: None

360 PERMIT NUMBER: 128220048700001
PERMIT ISSUED: 06/13/2012
PERMIT EXPIRES: 06/12/2017

OWNER: Anthony Core
ADDRESS: 7 Portland Avenue
(*Mailing*): Westbury, NY 11590
PHONE: (516)333-5741

CONTACT:
ADDRESS: 7 Portland Avenue
(*Location*): Westbury, NY 11590
PHONE: (516)333-5741

WASTE TYPE: Construction & Demolition Debris

Date of Last Inspection:

Sanitary District #1 **[30T91]** NYUTM East: 606300 NYUTM North: 4498200

ACTIVITY DESCRIPTION: z Retired - C&D processing - permit
OWNER TYPE: Municipal
REGULATORY STATUS: None

360 PERMIT NUMBER: 128200133500001
PERMIT ISSUED: 08/01/2014
PERMIT EXPIRES: 08/01/2019

OWNER: Sanitary District #1
ADDRESS: PO Box 342
(*Mailing*): Lawrence, NY 11559
PHONE: (516)239-5600

CONTACT: George Pappas
ADDRESS: 2 Bay Boulevard
(*Location*): Lawrence, NY 11559
PHONE: (516)239-5600

WASTE TYPE: Construction & Demolition Debris

Date of Last Inspection:

Stony Creek Services LLC **[30M35]** NYUTM East: 614196 NYUTM North: 4497437

ACTIVITY DESCRIPTION: z Retired - C&D processing - permit
OWNER TYPE: Private
REGULATORY STATUS: Permit

360 PERMIT NUMBER: 128200160600001
PERMIT ISSUED: 01/05/2016
PERMIT EXPIRES: 01/04/2021

OWNER: ERSC Galdon LLC
ADDRESS: 5000 Long Beach Road
(*Mailing*): Island Park, NY 11558
PHONE: (516)351-7632

CONTACT: Sean Carroll
ADDRESS: 4001 Daly Blvd
(*Location*): Oceanside, NY 11572
PHONE: (516)678-5454

WASTE TYPE: Asphalt, Brick, Concrete, Soil (Clean)

Date of Last Inspection: 05/03/2018

United Recycling System of LI **[30M48]** NYUTM East: 613700 NYUTM North: 4497800

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	30M48R
REGULATORY STATUS:	None	PERMIT ISSUED:	11/26/2014
		PERMIT EXPIRES:	11/25/2019
OWNER:	Joseph Tarulli	CONTACT:	Steve Tarulli
ADDRESS:	3550 Hampton Rd	ADDRESS:	3550 Hampton Road
(*Mailing*):	Oceanside, NY 11572	(*Location*):	Oceanside, NY 11572
PHONE:	(516)678-7865	PHONE:	(516)678-7865
WASTE TYPE:		Date of Last Inspection:	

Westbury Recycling Inc **[30W34]** NYUTM East: 620867 NYUTM North: 4512810

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	128220136200001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	11/01/2015
		PERMIT EXPIRES:	10/31/2020
OWNER:	Westbury Recycling Inc	CONTACT:	Michael Rich
ADDRESS:	117 Magnolia Ave	ADDRESS:	117 Magnolia Avenue
(*Mailing*):	Westbury, NY 11590	(*Location*):	Westbury, NY 11590
PHONE:	(516)743-9199	PHONE:	(516)743-9199
WASTE TYPE:	Construction & Demolition Debris, Metals (Ferrous), Metals (Non-Ferrous), Paper/Cardboard, Plastics	Date of Last Inspection:	07/31/2019

NYS DEC **REGION 1**
County: **Suffolk**

Bistrian Gravel Corp **[52W18]** NYUTM East: 737802 NYUTM North: 4540854

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W18R
REGULATORY STATUS:	Permit	PERMIT ISSUED:	12/22/2016
		PERMIT EXPIRES:	12/21/2021
OWNER:	Fireplace Development Corp	CONTACT:	Barry Bistrian
ADDRESS:	PO Box 5048	ADDRESS:	225 Spring Fireplace Rd.
(*Mailing*):	East Hampton, NY 11937	(*Location*):	East Hampton, NY 11937
PHONE:	(631)324-1123	PHONE:	(631)324-1123
WASTE TYPE:	Asphalt, Brick, Concrete, Soil (Clean), Rock	Date of Last Inspection:	

Brookhaven Waste Management Facility **[52CP0226]** NYUTM East: 674600 NYUTM North: 4518600

ACTIVITY DESCRIPTION:	CDDHRF - permit		
OWNER TYPE:	Municipal	360 PERMIT NUMBER:	147220076100002
REGULATORY STATUS:	Permit	PERMIT ISSUED:	10/22/2014
		PERMIT EXPIRES:	10/15/2019
OWNER:	Town of Brookhaven	CONTACT:	Michael DesGaines
ADDRESS:	One Independence Hill	ADDRESS:	350 Horseblock Road
(*Mailing*):	Farmingville, NY 11738	(*Location*):	Yaphank, NY 11719
PHONE:	(631)451-9013	PHONE:	(631)286-8551
WASTE TYPE:	Construction & Demolition Debris	Date of Last Inspection:	

Crown Recycling Facility **[52W01]** NYUTM East: 692135 NYUTM North: 4535254

ACTIVITY DESCRIPTION:	CDDHRF - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147300037100002
REGULATORY STATUS:	Permit	PERMIT ISSUED:	05/07/2019
		PERMIT EXPIRES:	05/06/2024
OWNER:	Crown Sanitation	CONTACT:	Frank Rossano
ADDRESS:	PO Box 215	ADDRESS:	865 Youngs Ave.
(*Mailing*):	Calverton, NY 11933	(*Location*):	Riverhead, NY 11901
PHONE:	(631)727-3939	PHONE:	(631)727-3939
WASTE TYPE:	Construction & Demolition Debris, Wood (Brush/ Branches/ Trees/ Stumps), Concrete, Wood (Unadulterated), Paper / Cardboard	Date of Last Inspection:	01/12/2016

DeChiaro Associates Corp. (Lot 2 & 2A) **[52CP0246]** NYUTM East: 674459 NYUTM North: 4519655

ACTIVITY DESCRIPTION:	CDDHRF - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W133R
REGULATORY STATUS:	Permit	PERMIT ISSUED:	12/11/2018
		PERMIT EXPIRES:	12/10/2023
OWNER:	DeChiaro Associates Corp.	CONTACT:	Joseph DeChiaro
ADDRESS:	1732 Church Street	ADDRESS:	2 Grucci Lane
(*Mailing*):	Holbrook, NY 11741	(*Location*):	Yaphank, NY 11716
PHONE:	(631)563-9232	PHONE:	(631)374-8084
WASTE TYPE:	Asphalt, Brick, Concrete, Rock, Soil (Clean), Wood (Brush/ Branches/ Trees/ Stumps)	Date of Last Inspection:	07/20/2018

Emil Norsic & Son Inc **[52W113]** NYUTM East: 718132 NYUTM North: 4530918

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W112R
REGULATORY STATUS:	Permit	PERMIT ISSUED:	08/28/2017
		PERMIT EXPIRES:	08/27/2022
OWNER:	Emil J. Norsic Jr.	CONTACT:	Stuart Fuhlbrugge
ADDRESS:	PO Box 863	ADDRESS:	42 Sandy Hollow Road
(*Mailing*):	Southampton, NY 11969	(*Location*):	Southampton, NY 11968
PHONE:	(516)429-6898	PHONE:	(631)283-0604
WASTE TYPE:	Construction & Demolition Debris, Wood (Brush/ Branches/ Trees/ Stumps), Concrete, Metals (Ferrous), Metals (Non-Ferrous)	Date of Last Inspection:	

Great Northern Fibers Inc **[52T81]** NYUTM East: 636198 NYUTM North: 4510434

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147200085200001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	04/02/2018
		PERMIT EXPIRES:	04/01/2023
OWNER:	Great Northern Fibers LLC	CONTACT:	Michael Vitale
ADDRESS:	77 Field Street	ADDRESS:	77 Field Street
(*Mailing*):	West Babylon, NY 11704	(*Location*):	West Babylon, NY 11704
PHONE:	(631)643-7940	PHONE:	(631)643-7940
WASTE TYPE:	Construction & Demolition Debris	Date of Last Inspection:	

Guillo Enterprises, Inc. **[52CP0239]** NYUTM East: 689301 NYUTM North: 4532980

ACTIVITY DESCRIPTION:	CDDHRF - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147300176600001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	10/11/2018
		PERMIT EXPIRES:	10/10/2023
OWNER:	3829 Middle Country Road, LLC	CONTACT:	
ADDRESS:	3829 Middle Country Road	ADDRESS:	3829 Middle Country Road
(*Mailing*):	Calverton, NY 11933	(*Location*):	Calverton, NY 11933
PHONE:	(631)727-5702	PHONE:	
WASTE TYPE:	Wood (Brush/ Branches/ Trees/ Stumps), Brick, Asphalt Pavement, Concrete, Rock, Soil (Clean)	Date of Last Inspection:	

Hampton Sand Mining Corp **[52W33R]** NYUTM East: 693751 NYUTM North: 4524337

ACTIVITY DESCRIPTION:	CDDHRF - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W33R
REGULATORY STATUS:	Registration	PERMIT ISSUED:	12/12/2017
		PERMIT EXPIRES:	12/18/2022
OWNER:	Barbara Dawson	CONTACT:	Stan Warshaw
ADDRESS:	2 Amber Lane	ADDRESS:	1 High Street
(*Mailing*):	Westhampton, NY 11977	(*Location*):	Speonk, NY 11972
PHONE:	(631)288-3573	PHONE:	(631)325-5533
WASTE TYPE:	Wood (Clean), Concrete, Soil (Clean), Wood (Brush/ Branches/ Trees/ Stumps), Wood (Chips), Asphalt	Date of Last Inspection:	06/08/2018

Jet Paper Stock Corp TS **[52M07]** NYUTM East: 653272 NYUTM North: 4518747

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147280072000001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	10/31/2019
		PERMIT EXPIRES:	10/30/2024
OWNER:	Patricia DiMatteo	CONTACT:	
ADDRESS:	228 Blydenburgh Road	ADDRESS:	228 Blydenburgh Road
(*Mailing*):	Islandia, NY 11749	(*Location*):	Islandia, NY 11749
PHONE:	(631)234-7100	PHONE:	(631)234-7100
WASTE TYPE:	Construction & Demolition Debris	Date of Last Inspection:	

National Waste Disposal Corp **[52W57]** NYUTM East: 644718 NYUTM North: 4514705

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147280093700004
REGULATORY STATUS:	None	PERMIT ISSUED:	10/31/2013
		PERMIT EXPIRES:	10/30/2018
OWNER:	National Waste Disposal Corp	CONTACT:	Richard Leone
ADDRESS:	1863 Harrison Ave	ADDRESS:	9 Lincoln Ave
(*Mailing*):	Bayshore, NY 11706	(*Location*):	Bayshore, NY 11706
PHONE:	(631)242-0300	PHONE:	(631)242-0300
WASTE TYPE:	Construction & Demolition Debris	Date of Last Inspection:	

Omni Recycling of Babylon Inc **[52M19]** NYUTM East: 635534 NYUTM North: 4510107

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147200258600001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	02/17/2017
		PERMIT EXPIRES:	02/16/2022
OWNER:	Omni Recycling of Babylon Inc	CONTACT:	Patricia DiMatteo
ADDRESS:	114 Alder Street	ADDRESS:	114 Alder Street
(*Mailing*):	West Babylon, NY 11704	(*Location*):	West Babylon, NY 11704
PHONE:	(631)694-1694	PHONE:	(631)694-1694
WASTE TYPE:	Construction & Demolition Debris	Date of Last Inspection:	

One World Recycling LLC **[52M37]** NYUTM East: 637892 NYUTM North: 4507314

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147200100400004
REGULATORY STATUS:	Permit	PERMIT ISSUED:	09/19/2016
		PERMIT EXPIRES:	09/18/2021
OWNER:	One World Recycling, LLC	CONTACT:	Jeffery Graziose
ADDRESS:	6885 N. Queens Avenue	ADDRESS:	685 North Queens Avenue
(*Mailing*):	Lindenhurst, NY 11757	(*Location*):	Lindenhurst, NY 11757
PHONE:	(631)888-0600	PHONE:	(631)888-0600
WASTE TYPE:	Construction & Demolition Debris, Concrete, Emergency Authorization Waste (Storm Debris), Wood (Brush/ Branches/ Trees/ Stumps), Metals (Ferrous), Metals (Non-Ferrous)	Date of Last Inspection:	

Our Recycling **[52W204]** NYUTM East: 725556 NYUTM North: 404851

ACTIVITY DESCRIPTION:	CDDHRF - permit		
OWNER TYPE:		360 PERMIT NUMBER:	1472206728
REGULATORY STATUS:		PERMIT ISSUED:	01/17/2018
		PERMIT EXPIRES:	01/16/2023
OWNER:		CONTACT:	Tide Runner Engineering & Design PC
ADDRESS:	,	ADDRESS:	5 Grucci Lane, Yaphank
(*Mailing*):	,	(*Location*):	Brookhaven, NY 11706
PHONE:		PHONE:	(631)839-4824
WASTE TYPE:	Construction & Demolition Debris, Concrete, Brick, Asphalt, Soil (Clean), Rock	Date of Last Inspection:	01/03/2019

Paragon Recycling & Transfer Corp **[52T46]** NYUTM East: 635999 NYUTM North: 4510103

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147200058100001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	12/16/2016
		PERMIT EXPIRES:	12/15/2021
OWNER:	Paragon Recycling & Transfer Corp	CONTACT:	Glenn Ferrante
ADDRESS:	35 Dale Street	ADDRESS:	35 Dale Steet
(*Mailing*):	West Babylon, NY 11704	(*Location*):	West Babylon, NY 11704
PHONE:	(631)249-1639	PHONE:	(631)249-1639
WASTE TYPE:	Construction & Demolition Debris, Wood (Brush/ Branches/ Trees/ Stumps), Metals (Ferrous), Metals (Non-Ferrous), Roofing Shingles, Wood (Unadulterated Pallets), Asphalt, Brick, Rock, Concrete, Paper / Cardboard, Plastics	Date of Last Inspection:	

Paumanok Environmental **[52W151]** NYUTM East: 673424 NYUTM North: 4519761

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147220567600001
REGULATORY STATUS:	None	PERMIT ISSUED:	09/09/2014
		PERMIT EXPIRES:	09/08/2019
OWNER:	Paumanok Environmental LLC	CONTACT:	
ADDRESS:	88 Old Dock Road	ADDRESS:	88 Old Dock Road
(*Mailing*):	Yaphank, NY 11980	(*Location*):	Yaphank, NY 11980
PHONE:	(631)775-5900	PHONE:	(631)775-5900
WASTE TYPE:	Construction & Demolition Debris, Concrete, Paper / Cardboard, Emergency Authorization Waste (Storm Debris), Wood (Brush/ Branches/ Trees/ Stumps), Metals (Ferrous), Metals (Non-Ferrous)	Date of Last Inspection:	

Peconic Recycling & Transfer Corp **[52T120]** NYUTM East: 709888 NYUTM North: 4544720

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147380369700001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	08/18/2016
		PERMIT EXPIRES:	08/17/2021
OWNER:	Anthony DiVello	CONTACT:	Anthony DiVello
ADDRESS:	PO Drawer 1402/800 Wickham Ave.	ADDRESS:	560 Commerce Drive
(*Mailing*):	Mattituck, NY 11952	(*Location*):	Cutchogue, NY 11935
PHONE:	(631)298-8888	PHONE:	
WASTE TYPE:	Construction & Demolition Debris	Date of Last Inspection:	

Posillico Materials **[52W189]** NYUTM East: 633800 NYUTM North: 4511500

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147200069500009
REGULATORY STATUS:		PERMIT ISSUED:	11/20/2015
		PERMIT EXPIRES:	11/19/2020
OWNER:	Posillico Materials LLC	CONTACT:	Thomas Posillico
ADDRESS:	1750 New Highway	ADDRESS:	1610 New Highway
(*Mailing*):	Farmingdale, NY 11735	(*Location*):	Farmingdale, NY 11735
PHONE:	(631)390-5762	PHONE:	(631)249-1872
WASTE TYPE:	Asphalt, Brick, Concrete, Rock, Soil (Clean), Non-petroleum Contaminated Soil	Date of Last Inspection:	

Recycled Earth Products Inc **[52W97]** NYUTM East: 644600 NYUTM North: 4526700

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	52W97R
REGULATORY STATUS:	Permit	PERMIT ISSUED:	12/15/2016
		PERMIT EXPIRES:	12/15/2021
OWNER:	Toby Alan Carlson	CONTACT:	Les J. Poinelli
ADDRESS:	140 Old Northport Rd	ADDRESS:	140 Old Northport Road
(*Mailing*):	Kings Park, NY 11754	(*Location*):	Kings Park, NY 11754
PHONE:	(631)767-8562	PHONE:	(631)368-4000
WASTE TYPE:	Concrete, Rock, Brick, Soil (Clean), Asphalt, Other - Bank Run, Wood (Brush/ Branches/ Trees/ Stumps), Wood (Unadulterated), Wood (Chips), Emergency Authorization Waste (Storm Debris), Construction & Demolition Debris	Date of Last Inspection:	07/26/2018

S&P Sanitation **[52W116]** NYUTM East: 723442 NYUTM North: 4533029

ACTIVITY DESCRIPTION:	CDDHRF - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147360602700001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	01/17/2018
		PERMIT EXPIRES:	01/16/2023
OWNER:	Suzanne Hennington	CONTACT:	Thomas Hennington
ADDRESS:	PO Box 939,	ADDRESS:	1062 Montauk Highway, PO Box 939
(*Mailing*):	Watermill, NY 11976	(*Location*):	Watermill, NY 11976
PHONE:	(631)729-9500	PHONE:	(631)726-9500
WASTE TYPE:	Construction & Demolition Debris, Wood (Brush/ Branches/ Trees/ Stumps), Concrete, Paper / Cardboard, Wood (Unadulterated)	Date of Last Inspection:	

Tate Street Realty LLC **[52T04]** NYUTM East: 662494 NYUTM North: 4516156

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147280094300004
REGULATORY STATUS:	Permit	PERMIT ISSUED:	04/18/2019
		PERMIT EXPIRES:	01/21/2023
OWNER:	Get Rid of It By Recycling Inc	CONTACT:	Ken Marandola
ADDRESS:	24 Tern Ct	ADDRESS:	442 Tate Street
(*Mailing*):	Bay Shore, NY 11706	(*Location*):	Holbrook, NY 11741
PHONE:	(631)588-9000	PHONE:	(631)580-5800
WASTE TYPE:	Construction & Demolition Debris, Concrete, Wood (Brush/ Branches/ Trees/ Stumps), Paper / Cardboard, Roofing Shingles, Soil (Clean), Metals (Ferrous), Metals (Non-Ferrous), Wood (Unadulterated)	Date of Last Inspection:	

Try Recycling Services LLC **[52W54]** NYUTM East: 644373 NYUTM North: 4514368

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147280145100001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	07/01/2017
		PERMIT EXPIRES:	06/30/2022
OWNER:	Try Recycling Services LLC	CONTACT:	Richard Leone
ADDRESS:	135 South 2nd Street	ADDRESS:	135 South Second St.
(*Mailing*):	Bayshore, NY 11706	(*Location*):	Bayshore, NY 11706
PHONE:	(631)586-1165	PHONE:	(631)586-1165
WASTE TYPE:	Construction & Demolition Debris	Date of Last Inspection:	08/09/2019

Try Recycling Services, LLC **[52W122]** NYUTM East: 644600 NYUTM North: 4514400

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147280398600001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	05/25/2017
		PERMIT EXPIRES:	05/24/2022
OWNER:	Brussels-Leir Holding Ltd.	CONTACT:	Michael Nuzzi
ADDRESS:	110 Wall Street, 17th Floor	ADDRESS:	45 Garfield Ave.
(*Mailing*):	New York, NY 10005	(*Location*):	Bayshore, NY 11706
PHONE:	(631)804-4102	PHONE:	(631)804-4102
WASTE TYPE:	Construction & Demolition Debris	Date of Last Inspection:	

Waste Sorting Corp **[52W66]** NYUTM East: 658846 NYUTM North: 4517530

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147280076000001
REGULATORY STATUS:	None	PERMIT ISSUED:	02/23/2015
		PERMIT EXPIRES:	02/22/2020
OWNER:	Kenneth Goetz	CONTACT:	Kenneth Goetz
ADDRESS:	2065 Pond Road	ADDRESS:	2065 Pond Road
(*Mailing*):	Ronkonkoma, NY 11779	(*Location*):	Ronkonkoma, NY 11779
PHONE:	(631)981-1332	PHONE:	(631)981-1332
WASTE TYPE:	Construction & Demolition Debris, Metals (Ferrous), Metals (Non-Ferrous), Concrete, Paper / Cardboard, Wood (Unadulterated)	Date of Last Inspection:	

Winters Bros Waste Systems of LI LLC Excel TS **[52W08]** NYUTM East: 669758 NYUTM North: 4520419

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147220099600005
REGULATORY STATUS:	Permit	PERMIT ISSUED:	10/13/2016
		PERMIT EXPIRES:	10/12/2021
OWNER:	Progressive Waste Solutions TS of LI, Inc	CONTACT:	John Soldinger
ADDRESS:	1198 Prospect Ave	ADDRESS:	151 Peconic Ave.
(*Mailing*):	Westbury, NY 11590	(*Location*):	Medford, NY 11763
PHONE:	(516)937-0900	PHONE:	(631)289-3335
WASTE TYPE:	Concrete, Brick, Soil (Clean), Wood (Brush/ Branches/ Trees/ Stumps), Rock, Construction & Demolition Debris	Date of Last Inspection:	

Winters Brothers Waste Systems - 99 Nancy Babylon **[52W09]** NYUTM East: 637148 NYUTM North: 4511092

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	147200220900001
REGULATORY STATUS:	Permit	PERMIT ISSUED:	08/31/2015
		PERMIT EXPIRES:	08/31/2020
OWNER:	Winters Brothers Waste Systems of Long Island LLC	CONTACT:	Mike Schauer
ADDRESS:	120 Nancy Street	ADDRESS:	99 Nancy Street
(*Mailing*):	West Babylon, NY 11704	(*Location*):	West Babylon, NY 11704
PHONE:	(631)244-7272	PHONE:	(631)491-5705
WASTE TYPE:	Source Separated Recyclables (Metal/Glass/Paper/Plastic), Wood (Brush/ Branches/ Trees/ Stumps), Rock, Construction & Demolition Debris, Concrete, Brick, Soil (Clean), Electronics	Date of Last Inspection:	07/26/2018

NYS DEC **REGION 2**
County: **Bronx**

A J Recycling Inc (Roll-Tech) **[03W41]** NYUTM East: 594080 NYUTM North: 4517969

ACTIVITY DESCRIPTION:	z Retired - C&D processing - permit		
OWNER TYPE:	Private	360 PERMIT NUMBER:	2600700137
REGULATORY STATUS:	Permit	PERMIT ISSUED:	11/02/2016
		PERMIT EXPIRES:	11/01/2021
OWNER:	Andrew Bullaro	CONTACT:	Andrew Bullaro
ADDRESS:	170-05 32nd Ave	ADDRESS:	325 Faile Street
(*Mailing*):	Flushing, NY 11358	(*Location*):	Bronx, NY 10474
PHONE:	(718)328-7334	PHONE:	(718)328-7334
WASTE TYPE:	Construction & Demolition Debris, Metals (Ferrous), Metals (Non-Ferrous), Concrete, Paper / Cardboard, Plastics, Wood (Unadulterated)	Date of Last Inspection:	

APPENDIX A-4
AREA PHOTOGRAPHS

Nelson Pope Voorhis
Taken August 30, 2019


STO

APPENDIX B
SITE PLAN APPLICATION-RELATED DOCUMENTS

APPENDIX B-1
ENVIRONMENTAL ASSESSMENT FORM (EAF) PART I

NPV, LLC
June 23, 2017

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

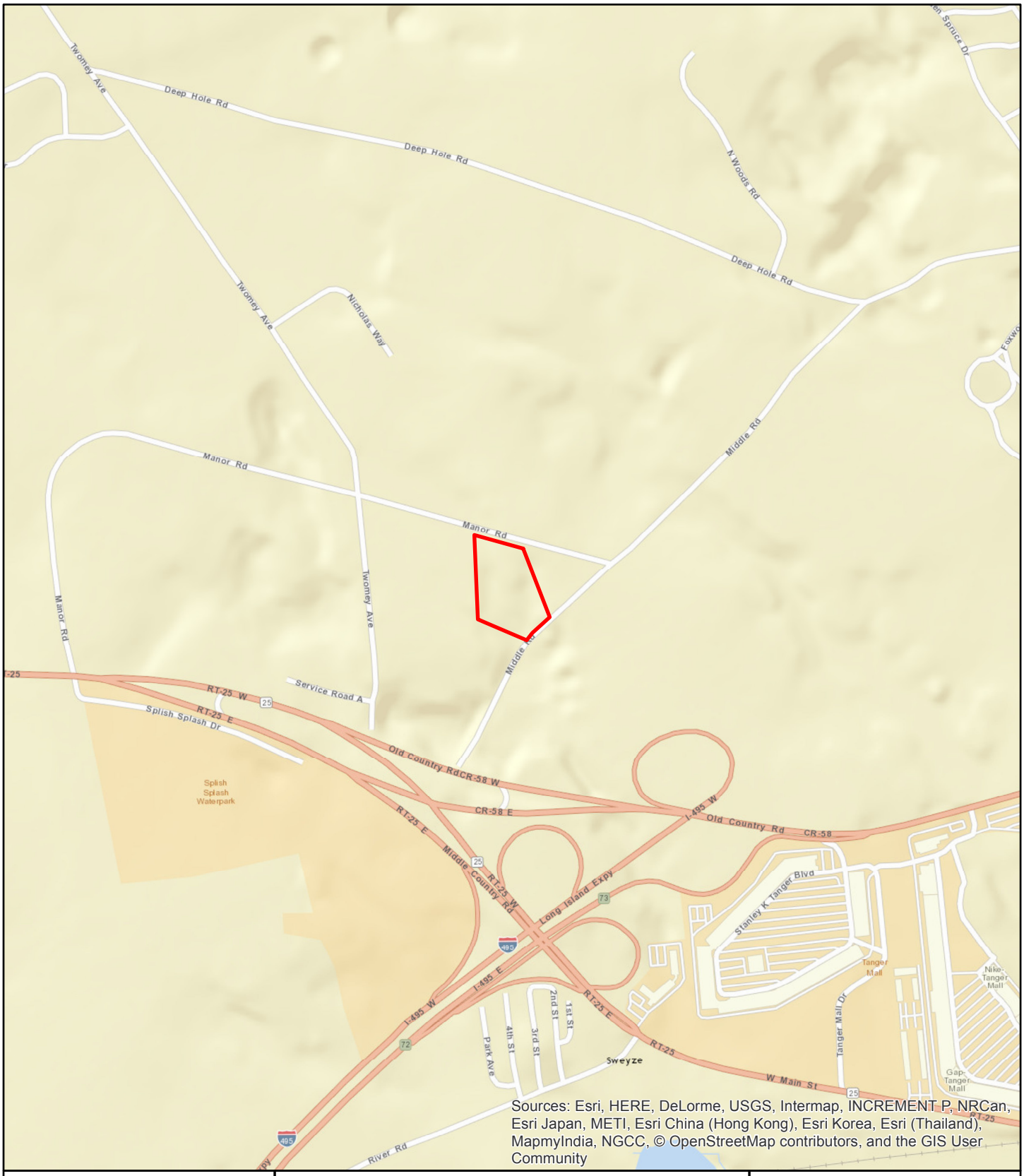
Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: 1792 Middle Road		
Project Location (describe, and attach a general location map): 1792 Middle Road, Calverton, NY 11933 (Suffolk County Tax Map: District 600, Section 100, Block 2, Lot 4.2 (See attached location map.)		
Brief Description of Proposed Action (include purpose or need): The proposed action involves the redevelopment of a 6.68-acre industrially zoned property which currently contains a residence and residential accessory structures. The existing residential use on-site is proposed to be converted to an asphalt and concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage to office and storage space. An existing in-ground swimming pool and other minor residential accessory structures would be removed. The proposed business would have two crushing/screening equipment stations and five asphalt/concrete stockpiles. Ten-foot deep buffers would be be provided along the eastern, western and southwestern property boundaries and 20-foot deep buffers would be provided along the southeastern and northerly property boundaries. Existing vegetation in the southeastern and southwestern portions of the site would remain. The proposed driveway will be surfaced with RCA and topsoil and hydro seeding is proposed in non-operational areas.		
Name of Applicant/Sponsor: Breezy Hill Group VI, LLC, care of Sam Stasi	Telephone: 1.718.663.1333 E-Mail: samstasi85@yahoo.com	
Address: 2186 Kirby Lane		
City/PO: Syosset	State: NY	Zip Code: 11791
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): Same as Applicant/Sponsor	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:



NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING

FIGURE
LOCATION

Source: ESRI Web Mapping Service

Scale: 1 inch = 1,000 feet

N

1792 Middle Road
Calverton

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Town Planning Board - Site Plan Approval	June 2017
c. City Council, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	Town Bldg. & Highway Dept. and Water District Demo., Bldg., ROW & Water Connection Permits	Pending Site Plan Approval
e. County agencies ☑Yes ☐No	SCDHS - Wastewater Disposal & Water Supply	Pending Site Plan Approval
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDEC - 360 Permit, Article 19 State Facility Permit, General Stormwater Construction Permit	Pending Site Plan Approval
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes ☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

NYS Heritage Areas; LI North Shore Heritage Area; Central Pine Barrens Comprehensive Plan - Central Suffolk Special Groundwater Protection Area

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?

Industrial A

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Riverhead CSD

b. What police or other public protection forces serve the project site?
Riverhead Town Police, Precinct R603

c. Which fire protection and emergency medical services serve the project site?
Riverhead Fire (844) Ambulance (852) Districts

d. What parks serve the project site?
Peconic Bog County Park, Stotzky Memorial Park, Riley Avenue School

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Industrial: asphalt and concrete screening and crushing

b. a. Total acreage of the site of the proposed action? 6.68 acres
b. Total acreage to be physically disturbed? 5.56 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 6.68 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 12 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐ Yes ☑ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ No

If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑ Yes ☐ No

If Yes,

i. Purpose of the impoundment: Drainage Reserve Area

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑ Other specify: A Pretreatment Sediment Basin with overflow to a Drainage Reserve Area with 2 Leaching Pools is proposed - part of the erosion and drainage plans

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: .26 million gallons; surface area: 1.2 acres

v. Dimensions of the proposed dam or impounding structure: 8 height; 240 length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): Earth construction

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☑ Yes ☐ No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

i .What is the purpose of the excavation or dredging? Grading for installation of internal roadway, and drainage systems.

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): to be determined during site plan design & review
- Over what duration of time? Typically site/drainage work occurs within the first 6 months

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

Excavations will require the removal of existing site soils to allow for roadway and drainage systems. To the extent possible, soils will be redistributed on the site.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☑ No

If yes, describe. _____

v. What is the total area to be dredged or excavated? 1.2 acres

vi. What is the maximum area to be worked at any one time? 1.2 acres

vii. What would be the maximum depth of excavation or dredging? 25 feet (max.) drainage structures feet

viii. Will the excavation require blasting? ☐ Yes ☑ No

ix. Summarize site reclamation goals and plan: All disturbed areas will be stabilized, landscaped or improved as part of site development.

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☑ Yes ☐ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): A small non-designated man-made pond located in the southern portion of the property will be removed

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
Removal of an approximate .02 acre man-made pond.

iii. Will proposed action cause or result in disturbance to bottom sediments? ☑ Yes ☐ No
If Yes, describe: Bottom sediments will be removed with pond.

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☑ No
If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: +/- 3,170* gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: Riverhead Water District
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No
If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), maximum pumping capacity: 1,380 gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: +/- 218 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____
Sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐ Yes ☑ No
If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No

- Do existing sewer lines serve the project site? ☐Yes ☐No
- Will line extension within an existing district be necessary to serve the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 0.4 acres (impervious surface)

_____ Square feet or 6.68 acres (parcel size)

ii. Describe types of new point sources. Proposed parking, roadway and stockpile areas.

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Stormwater runoff will be directed to proposed drainage reserve basin and leaching pools in southern area of property

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Portable screening and crushing equipment powered by a diesel fired internal combustion engine and delivery vehicles.

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☑Yes ☐No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☑No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☑Yes ☐No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

Dust and diesel exhaust possible during construction and operation of business

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend
☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

_____

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

Insufficient information is currently available to model probable operational energy consumption

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

Grid/local utility: Long Island Power Authority/Keyspan

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 8am -5pm
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: 8am -5pm
- Saturday: _____
- Sunday: _____
- Holidays: _____

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Temporary noise from construction equipment. Construction operating times will be limited per Town of Riverhead Code Chapter 251, Article I, Noise, which limits such noise levels from commercial and industrial properties to neighboring properties.

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: Existing natural barriers (trees and other vegetation) will be removed for construction. Conformance to setbacks and proposed landscaping will provide screening consistent with surrounding residential uses.

n.. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Essential outdoor lighting pursuant to Town Code Chapter 301, Part 3, Article XLIX Outdoor Lighting

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: Clearing will remove trees along property boundaries. Compliance with setbacks and proposed landscaping will mitigate impacts.

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☑ Yes ☐ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

An Air State Facility permit will be obtained for the site from the New York State Department of Environmental Conservation under Environmental Conservation Law, Article 19, Air Pollution Control.

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____* tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: The use supports state and town waste management policies by promoting recycling material which would otherwise be a waste requiring landfilling, and generating a product that can be used beneficially.

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: The facility will be operated under New York State's Solid Waste Management Facilities Regulations, 6 NYCRR Part 360 (Part 360).

s. Does the proposed action include construction or modification of a solid waste management facility? ☑ Yes ☐ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): Asphalt & Concrete Recycling

ii. Anticipated rate of disposal/processing:

- _____* Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: Not Applicable years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☐ Commercial ☑ Residential (suburban) ☑ Rural (non-farm)
☐ Forest ☑ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.4	3.2	+2.8
• Forested	5.35	0.95	-4.4
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0.02	0.02	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0.03	0	-0.03
• Other Describe: Landscape	0.88	2.5	+1.62

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☑ No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 1,200 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site:

Riverhead sandy loam, RdC	+/-57 %
Carver and Plymouth sands, CpC	+/-31 %
Haven loam, HaB	+/-7 %

d. What is the average depth to the water table on the project site? Average: _____ feet

e. Drainage status of project site soils:

☑	Well Drained:	100 % of site
☐	Moderately Well Drained:	_____% of site
☐	Poorly Drained	_____% of site

f. Approximate proportion of proposed action site with slopes:

☑	0-10%:	+/-60 % of site
☑	10-15%:	+/-17 % of site
☑	15% or greater:	+/-23 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☑ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100 year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500 year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑ Yes ☐ No
If Yes:

i. Name of aquifer: Sole Source Aquifers: Nassau -Suffolk SSA

m. Identify the predominant wildlife species that occupy or use the project site:
Squirrels, raccoons, chipmunks, rabbits and other small mammals. | Woodland, old field and shrubland birds

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation): _____
ii. Source(s) of description or evaluation: _____
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No
If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No
If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☑ Yes ☐ No
i. If Yes: acreage(s) on project site? 3.9 acres - Riverhead sandy loam, 8 to 15 percent slopes. Farmland of statewide importance
ii. Source(s) of soil rating(s): Soil Survey of Suffolk County

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No
If Yes:
i. CEA name: _____
ii. Basis for designation: _____
iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

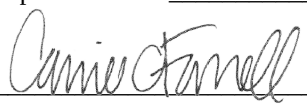
Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Carrie O'Farrell, AICP (agent) Date June 23, 2017

Signature  Title Partner, NP&V

PRINT FORM

APPENDIX B-2
PRELIMINARY DETERMINATION LETTER, TOWN CHIEF BUILDING INSPECTOR

Town of Riverhead Building Department
December 5, 2017

TOWN OF RIVERHEAD
Building Department
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www.townofriverheadny.gov

Jefferson V Murphree, AICP	*Brad Hammond*	*Mark Griffin*	*Richard Podlas*
Building & Planning Admin.	*Chief Building Inspector*	*Building Inspector*	*Building Inspector*
Ext. 239	*Ext. 265*	*Ext. 275*	*Ext. 231*

December 5, 2017

Breezy Hill Group VI, LLC
1792 Middle Rd
Calverton, NY 11933

RE: Proposed Construction and Demolition Debris Processing Facility
1792 Middle Rd, Calverton
SCTM # 600-100-02-004.02

Dear Sir or Madam:

A preliminary review by this office for the above referenced project has been found to **not** be in accordance with the Zoning Code of the Town of Riverhead. Therefore your application for site plan approval has been denied. Your application may be resubmitted with the following issues resolved, or you have the right to seek relief from the Town Zoning Board of Appeals.

Zoning: Industrial A (Ind A)
Section(s): §301-114 A. Proposed Construction and Demolition Debris Processing Facility use is not a permitted principle use within the zoning district

Any approval or relief from the Zoning Board does not constitute satisfying requirements for site plan approval or associated building permit. Further review by this and other offices may be necessary.

The applicant must apply within sixty (60) days of the date of this letter to the Zoning Board of Appeals. Please contact Carissa Collins in the Planning Department at extension 240 or collins@townofriverheadny.gov for an application or information, or visit the Town website at www.townofriverheadny.gov
It is the applicant's responsibility to follow all procedures as outlined to you by the Planning Department.

Sincerely,

Brad Hammond
Chief Building Inspector

Cc: Jefferson Murphree, AICP Building & Planning Administrator
Robert Kozakiewicz, Town Attorney

APPENDIX B-3
ENVIRONMENTAL ASSESSMENT FORM (EAF) PART I

Nelson Pope Voorhis
January 23, 2018

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: 1792 Middle Road		
Project Location (describe, and attach a general location map): 1792 Middle Road, Calverton, NY 11933 (Suffolk County Tax Map: District 600, Section 100, Block 2, Lot 4.2 (See attached location map.)		
Brief Description of Proposed Action (include purpose or need): The proposed action involves the redevelopment of a 6.68-acre industrially zoned property which currently contains a residence and residential accessory structures. The existing residential use on-site is proposed to be converted to an asphalt and concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage to office and storage space. An existing in-ground swimming pool and other minor residential accessory structures would be removed. The proposed business would have two crushing/screening equipment stations and five asphalt/concrete stockpiles. Ten-foot deep buffers would be be provided along the eastern, western and southwestern property boundaries and 20-foot deep buffers would be provided along the southeastern and northerly property boundaries. Existing vegetation in the southeastern and southwestern portions of the site would remain. The proposed driveway will be surfaced with RCA and topsoil and hydro seeding is proposed in non-operational areas.		
Name of Applicant/Sponsor: Breezy Hill Group VI, LLC, care of Sam Stasi	Telephone: 1.718.663.1333 E-Mail: samstasi85@yahoo.com	
Address: 2186 Kirby Lane		
City/PO: Syosset	State: NY	Zip Code: 11791
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): Same as Applicant/Sponsor	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Town Planning Board - Site Plan Application Town Zoning Board of Appeals - Use Variance	June 2017 submission January 2018 application
c. City Council, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	Town Bldg. & Highway Dept. and Water District Demo., Bldg., ROW & Water Connection Permits	Pending Site Plan Approval
e. County agencies ☑Yes ☐No	SCDHS - Wastewater Disposal & Water Supply	Pending Site Plan Approval
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDEC - 360 Permit, Article 19 State Facility Permit, General Stormwater Construction Permit	Pending Site Plan Approval
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include ~~specific~~ recommendations for the site where the proposed action would be located? ☑Yes ☐No

Town of Riverhead Comprehensive Plan Figure 2-1 Proposed Land Use Plan - Industrial A

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

NYS Heritage Areas; LI North Shore Heritage Area; Central Pine Barrens Comprehensive Plan - Central Suffolk Special Groundwater Protection Area

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?

Industrial A

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Riverhead CSD

b. What police or other public protection forces serve the project site?
Riverhead Town Police, Precinct R603

c. Which fire protection and emergency medical services serve the project site?
Riverhead Fire (844) Ambulance (852) Districts

d. What parks serve the project site?
Peconic Bog County Park, Stotzky Memorial Park, Riley Avenue School

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Industrial: asphalt and concrete screening and crushing

b. a. Total acreage of the site of the proposed action? 6.68 acres
b. Total acreage to be physically disturbed? 5.56 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 6.68 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 12 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐ Yes ☑ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ No

If Yes,

i. Total number of structures

ii. Dimensions (in feet) of largest proposed s

iii. Approximate extent of building space to be heated or cooled: square feet

No new buildings are proposed - existing home to be converted for business use and a parking area with 11 spaces and permanent erosion control basins will be constructed.

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑ Yes ☐ No

If Yes,

i. Purpose of the impoundment: Drainage Reserve Area

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑ Other specify:
A Pretreatment Sediment Basin with overflow to a Drainage Reserve Area with 2 Leaching Pools is proposed - part of the erosion and drainage plans

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: .26 million gallons; surface area: 1.2 acres

v. Dimensions of the proposed dam or impounding structure: 8 height; 240 length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):
Earth construction

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☑ Yes ☐ No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

i .What is the purpose of the excavation or dredging? Grading for installation of internal roadway, and drainage systems.

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): to be determined during site plan design & review
- Over what duration of time? Typically site/drainage work occurs within the first 6 months

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.
Excavations will require the removal of existing site soils to allow for roadway and drainage systems. To the extent possible, soils will be redistributed on the site.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☑ No
If yes, describe.

v. What is the total area to be dredged or excavated? 1.2 acres

vi. What is the maximum area to be worked at any one time? 1.2 acres

vii. What would be the maximum depth of excavation or dredging? 25 feet (max.) drainage structures feet

viii. Will the excavation require blasting? ☐ Yes ☑ No

ix. Summarize site reclamation goals and plan:
All disturbed areas will be stabilized, landscaped or improved as part of site development.

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☑ Yes ☐ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): A small non-designated man-made pond located in the southern portion of the property will be removed

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
Removal of an approximate .02 acre man-made pond.

iii. Will proposed action cause or result in disturbance to bottom sediments? ☑ Yes ☐ No
If Yes, describe: Bottom sediments will be removed with pond.

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☑ No
If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:
*includes 2,952 gpd for irrigation and dust suppression (2,232 + 720 gpd).

i. Total anticipated water usage/demand per day: +/- 3,170* gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: Riverhead Water District
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No
If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), maximum pumping capacity: 1,380 gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: +/- 218 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____
Sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐ Yes ☑ No
If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No

- Do existing sewer lines serve the project site? ☐Yes ☐No
- Will line extension within an existing district be necessary to serve the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 0.4 acres (impervious surface)

_____ Square feet or 6.68 acres (parcel size)

ii. Describe types of new point sources. Proposed parking, roadway and stockpile areas.

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Stormwater runoff will be directed to proposed drainage reserve basin and leaching pools in southern area of property

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Portable screening and crushing equipment powered by a diesel fired internal combustion engine and delivery vehicles.

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☑Yes ☐No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☑No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☑Yes ☐No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

Dust and diesel exhaust possible during construction and operation of business

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

Insufficient information is currently available to model probable operational energy consumption

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

Grid/local utility: PSEG

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 8am -5pm
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: 8am -5pm
- Saturday: _____
- Sunday: _____
- Holidays: _____

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Temporary noise from construction equipment. Construction operating times will be limited per Town of Riverhead Code Chapter 251, Article I, Noise, which limits such noise levels from commercial and industrial properties to neighboring properties.

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: Existing natural barriers (trees and other vegetation) will be removed for construction. Conformance to setbacks and proposed landscaping will provide screening consistent with surrounding residential uses.

n.. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Essential outdoor lighting pursuant to Town Code Chapter 301, Part 3, Article XLIX Outdoor Lighting

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: Clearing will remove trees along property boundaries. Compliance with setbacks and proposed landscaping will mitigate impacts.

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☑ Yes ☐ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

An Air State Facility permit will be obtained for the site from the New York State Department of Environmental Conservation under Environmental Conservation Law, Article 19, Air Pollution Control.

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____* tons per _____ (unit of time)

*To be determined by NYSDEC Permit

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: The use supports state and town waste management policies by promoting recycling material which would otherwise be a waste requiring landfilling, and generating a product that can be used beneficially.

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: The facility will be operated under New York State's Solid Waste Management Facilities Regulations, 6 NYCRR Part 360 (Part 360).

s. Does the proposed action include construction or modification of a solid waste management facility? ☑ Yes ☐ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): Asphalt & Concrete Recycling

ii. Anticipated rate of disposal/processing:

- _____* Tons/month, if transfer or other non-combustion/thermal treatment, or *To be determined by NYSDEC Permit
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: Not Applicable years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☐ Commercial ☑ Residential (suburban) ☑ Rural (non-farm)
☐ Forest ☑ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.4	3.2	+2.8
• Forested	5.35	0.95	-4.4
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0.02	0.02	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0.03	0	-0.03
• Other Describe: Landscape	0.88	2.5	+1.62

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☑ No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 1,200 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site:

Riverhead sandy loam, RdC	+/-57 %
Carver and Plymouth sands, CpC	+/-31 %
Haven loam, HaB	+/-7 %

d. What is the average depth to the water table on the project site? Average: _____ feet

e. Drainage status of project site soils:

☑	Well Drained:	100 % of site
☐	Moderately Well Drained:	_____% of site
☐	Poorly Drained	_____% of site

f. Approximate proportion of proposed action site with slopes:

☑	0-10%:	+/-60 % of site
☑	10-15%:	+/-17 % of site
☑	15% or greater:	+/-23 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☑ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100 year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500 year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑ Yes ☐ No
If Yes:

i. Name of aquifer: Sole Source Aquifers: Nassau -Suffolk SSA

m. Identify the predominant wildlife species that occupy or use the project site:
Squirrels, raccoons, chipmunks, rabbits and other small mammals. Woodland, old field and shrubland birds

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation): _____
ii. Source(s) of description or evaluation: _____
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

It is noted that EAF Mapper indicates no species of concern, however, the NYSDEC Environmental Resource Mapper layer shows the subject site within a generalized locations of animals and plants that are rare in New York State, including but not limited to those listed as Endangered and Threatened.

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No
If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No
If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☑ Yes ☐ No
i. If Yes: acreage(s) on project site? 3.9 acres - Riverhead sandy loam, 8 to 15 percent slopes. Farmland of statewide importance
ii. Source(s) of soil rating(s): Soil Survey of Suffolk County

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No
If Yes:
i. CEA name: _____
ii. Basis for designation: _____
iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Kathryn Eiseman, AICP (NP&V, agent) Date January 23, 2018

Signature _____ Title Partner, NP&V

PRINT FORM

APPENDIX B-4
FINAL DETERMINATION LETTER

Town of Riverhead ZBA
April 12, 2018

TOWN OF RIVERHEAD

DETERMINATION OF THE ZONING BOARD OF APPEALS

APPEAL NO.: 2018-008

APPLICANT/PROPERTY OWNER: Breezy Hill Group VI, LLC

RELIEF SOUGHT: for relief from Chapter 301 Section 114 A seeking an interpretation that concrete crushing is not a prohibited use in the Industrial A Zoning Use District (301-114).

LOCATION: 1792 Middle Road, Calverton 11933

SCTM#: 600-100-2-4.2

ZONING DISTRICT: Industrial A

DATES OF HEARING: March 8 and March 22, 2018

INSPECTION DATES: March 8, 2018

SUFFOLK COUNTY PLANNING COMMISSION: Pursuant to the Suffolk County Administrative Code Sections A14-14 to 23 this matter was referred to the Suffolk County Planning Commission and was assigned as a matter for local determination.

SEQRA: The Zoning Board of Appeals has visited the property under consideration and reviewed the application and determines that this interpretation is a TYPE II pursuant to 6 NYCRR Part 617.5(C)(31) which requires no further environmental review.

PLEASE TAKE NOTICE that at the public hearings of the Town of Riverhead Zoning Board of Appeals on the above referenced dates, the above referenced appeal was heard, evidence placed into the record and the application was duly considered. Based upon the foregoing, the Zoning Board of Appeals takes the following action:

HISTORY/PROPERTY FACTS

1. Lot is located on Middle Road and is situated with frontage on Middle Road and the rear of the property extending to Manor Road and is located within the Industrial A Zoning Use District.

2. A denial letter was sent from the Building Department on December 5, 2017 and an application was made to the Zoning Board of Appeals on February 1, 2018 which application included a letter from applicant's counsel Steven E. Losquadro, Esq. dated October 24, 2017 which letter details the applicant's arguments in favor of the interpretation sought. The applicant has requested that this Board interpret section 301-114 (Industrial A) such that "concrete crushing" is not a prohibited use within the Industrial A. Zoning Use District.

FINDINGS:

Riverhead Town Code section 301-114 (A)(6) states as follows:

"All industrial uses are permitted in the Ind A Zoning Use District, with the exception of the following uses which shall be prohibited:

Abattoirs
Acetylene gas manufacture
Ammonia manufacture
Asphalt manufacture
Bituminous paving material manufacture
Blast furnaces
Bleaching powder manufacture
Boiler-making
Brick, tile, terra-cotta manufacture
Carbon or lampblack manufacture
Celluloid manufacture
Chlorine gas or hydrochloric, nitric, picric, or sulfuric acid manufacture
Coal distillation, manufacture, or treatment
Curing or tanning of rawhides or skins
Disinfectant or insecticide manufacture
Distillation of bones
Dumps
Dyestuffs manufacture
Excelsior manufacture
Explosives or ammunition manufacture
Fat rendering or manufacture of greases or oils
Feed manufacture
Felt manufacture
Fertilizer manufacture
Fireworks manufacture
Garbage disposal dumps, landfills, incinerators, or transfer stations
Gas manufacture from coal, coke, or petroleum
Glue, size, or gelatin manufacture, where the process includes refining or recovering products from

fish or animal refuse or offal

Grain drying

Junkyards, wrecking, or salvage yards

Linoleum or oilcloth manufacture

Linseed oil or turpentine manufacture

Match manufacture

Motor vehicles, dismantling, wrecking, or compacting

Offal or dead animal reduction

Oxygen gas manufacture

Paint, shellac, stain, or varnish manufacture

Paper, building board, cardboard, or pulp manufacture

Petroleum or kerosene distillation, refining, or derivation of by-products

Plaster, lime, cement, or plaster of Paris manufacture

Plastics manufacture

Rubber or synthetic rubber refining and manufacture

Rubber products manufacture

Sand and gravel quarrying and mining

Scrap metal yards

Shoe polish or stove polish manufacture

Smelting of copper, iron, lead, tin, or zinc

Soap manufacture

Soil or mineral removal, including sand mining, gravel and mining operations, asphalt and concrete plants

Steel furnaces, blooming, or rolling mills

Storage of noncontainerized combustible materials

Tar distillation

Vinegar or sauerkraut manufacture

Warehousing, storage, wholesaling, or sale of hazardous, dangerous, and explosive materials such as acids, gases, ammunition, fireworks, and explosives

"Concrete crushing" *per se* is not contained within the list of prohibited uses.

DETERMINATION:

Section 301-114(A)(6) of the Riverhead Town Code does not *per se* prohibit "concrete crushing" as a use. This determination is strictly limited to analysis of the text of the Town of Riverhead Zoning code and does not give permission to the applicant to conduct

any uses on the premises without the prior approval of the zoning officer and receipt of any other approvals and/or zoning/use determinations required from any Town of Riverhead agencies and/or any other municipality or agency having jurisdiction.

The motion was made by Mr. Seabrook, seconded by Mr. Wittmeier, that the aforementioned determination be approved:

THE VOTE
MR. SEABROOK: AYE MR. BARNES: ABSENT
MRS. WORTHINGTON: AYE MR. WITTMEIER: AYE
MR. MCLAUGHLIN: AYE
This determination _X_ was __ was not therefore duly adopted

Dated: April 12, 2018

Very truly yours,

Fred McLaughlin, Chairman
ZONING BOARD OF APPEALS

APPENDIX B-5
CLARIFICATION OF FINAL DETERMINATION LETTER

Town of Riverhead ZBA
October 1, 2018

TOWN OF RIVERHEAD
ZONING BOARD OF APPEALS

200 HOWELL AVENUE, RIVERHEAD, NEW YORK 11901-2596
(631) 727-3200 ext. **240** FAX (631) 727-9101

F.J. McLaughlin	*Otto Wittmeier*	*Leroy E. Barnes, Jr.*	*Lisa Worthington*	*Frank Seabrook*
Chairman	*Vice Chairman*	*Member*	*Member*	*Member*

October 1, 2018

Steven E. Losquadro, Esq.
649 Route 25A, Suite 4
Rocky Point, NY 11778

RE: Appeal No. 18-008
Breezy Hill Group VI, LLC
1792 Middle Road, Calverton
SCTM # 600-100-2-4.2, Zoning District – Industrial A

Dear Mr. Losquadro:

Enclosed, please find a copy of the Zoning Board of Appeals Clarification of Determination. The original has been forwarded to the Town Clerk and copies forwarded to both the applicant, Building Department and the Planning Department. Please retain this copy for your records.

Should you have any questions, please feel free to contact me.

Sincerely,

Carissa Collins *for the*
ZONING BOARD OF APPEALS
201 Howell Avenue
Riverhead, NY 11901
631-727-3200 Ext. 240

Enc.

GRANTED

TOWN OF RIVERHEAD

DETERMINATION OF THE ZONING BOARD OF APPEALS
CLARIFICATION

APPEAL NO.: 2018-008

APPLICANT/PROPERTY OWNER: Breezy Hill Group, VI, LLC

RELIEF SOUGHT: Interpretation

For relief from Chapter 301 Section 114A seeking an interpretation that concrete crushing is not a prohibited use in the Industrial A Zoning Use District.

LOCATION: 1792 Middle Road, Calverton 11933 SCTM No.: 600-100-2-4.2

ZONING DISTRICT: Industrial A

MR. MCLAUGHLIN: This appeal was granted with the determination that Section 301-114(A)(6) of the Riverhead Town Code does not *per se* prohibit "concrete crushing" as a use. The determination was strictly limited to analysis of the text of the Town of Riverhead Zoning Code and does not give permission to the applicant to conduct any uses on the premises without the prior approval of the Zoning Officer and receipt of any other approvals and/or zoning/use determinations required from any Town of Riverhead agencies and/or any other municipality or agency having jurisdiction. This determination was granted on April 12, 2018. Mr. Steven E. Losquadro did request, in correspondence dated August 30, 2018 and received on September 4, 2018, to clarify the use in which the applicant will engage at the aforementioned premises.

Therefore, it is moved that Appeal 2018-008 be clarified in accordance with the request of the Riverhead Building Inspector/Zoning Officer to state that Section 301-114(A)(6) of the Town Code does not prohibit "concrete crushing" as previously determined by this Board in its April 12, 2018 determination and that the processing of concrete, asphalt and earth would likewise not be prohibited as part of the "concrete crushing" use, but that the processing, storage and/or transfer of garbage, including wood, metals, plastics or any recyclables or household refuse is prohibited.

The motion was offered by Mr. Wittmeier and seconded by Mr. Barnes. The motion carried by roll call vote of all members present:

MR. WITTMEIER	AYE
MR. SEABROOK:	ABSENT
MR. BARNES:	AYE
MS. WORTHINGTON	AYE
MR. MCLAUGHLIN	AYE

I hereby certify that the foregoing is a true copy of a motion duly adopted on the 13th day of September 2018, and of the whole thereof.

Dated: 9/25/18

Very truly yours,

Fred McLaughlin, Chairman
ZONING BOARD OF APPEALS

APPENDIX B-6
STAFF REPORT ON SITE PLAN APPLICATION

Town of Riverhead Planning Department
May 9, 2019

TOWN OF RIVERHEAD
PLANNING DEPARTMENT

201 HOWELL AVENUE, RIVERHEAD, NEW YORK 11901-2596
(631) 727-3200, FAX (631) 727-9101

Jefferson V. Murphree, AICP	John F. Flood, Jr.	Karin Gluth	Greg Bergman	Carissa Collins
Town Building and Planning Administrator	*Environmental Planner*	*Planner*	*Planning Aide*	*Planning Board Secretary*
Ext. 239	*Ext. 207*	*Ext. 206*	*Ext. 264*	*Zoning Board Secretary*
				Ext. 240

STAFF REPORT

To: Stanley Carey, Chairman
Planning Board

From: Greg Bergman, Planning Aide

Re: **Site Plan Application for Breezy Hill Group, LLC**
1792 Middle Road, Calverton
SCTM #600-100-2-4.2

Date: May 9, 2019

Current Application

The Planning Department has received and reviewed a site plan application seeking to establish and operate a construction and demolition processing facility (C&D) pursuant to New York State Department of Environmental Conservation Regulations Part 360 and 361 on a piece of industrially zoned property.

The applicant has already performed a significant amount of work, including clearing of existing vegetation and beginning operation of the propose use on the site with no approvals from any involved agencies (Building Department, Planning Department, Highway Department, Suffolk County Department of Health Services, NYSDEC, etc).

SEQRA

The proposed action is an Unlisted Action, pursuant to SEQRA. The Planning Board, by Resolution No. 2018-022, dated March 15, 2018, authorized the Planning Department to circulate a request to involved agencies requesting that the Planning Board assume Lead Agency status. To date, the Planning Department has received comments back from involved agencies, but no objections have been raised against the Planning Board assuming Lead Agency status.

Recommendations

Planning Staff recommends that the Planning Board assume Lead Agency status for the purposes of SEQRA review, and recommends that a Positive Declaration be issued, requiring the

preparation of an Environmental Impact Statement. The reasons for the recommendation of a Positive Declaration are as follows:

1. Potential impacts to groundwater and local water resources.
2. Noise pollution.
3. Dust impacts.
4. Traffic impacts.
5. Roadway and infrastructure.
6. Removal of agricultural soils.
7. Stormwater management and drainage.
8. Removal of existing vegetation.
9. Loss of required screening and buffers with residential properties.
10. Compatibility with the Town's Master Plan.

Site Location, Existing Site Conditions & Surrounding Uses

The subject property, identified as SCTM No. 600-100-2-4.2, is a 6.68 acre parcel, located within the Industrial A (Ind A) zoning use district. The parcel is located at 1792 Middle Road and is situated between Middle Road and Manor Road (see Figure 1).

The parcel is presently improved with a two-story frame and stucco structure, previously used as a single family residence, as well as a 1,340 sq. ft. one and one-half story frame barn/garage and an in-ground swimming pool.

The surrounding area is predominantly industrial uses, with the Suffolk Cement products occupying a large area to the south and west of the subject parcel. However, there are several residential properties to the northeast of the subject parcel, as well as to the southeast, across Middle Road.

Figure 1: Aerial, taken from Town GIS, showing subject site (outlined in red).

Plans Submitted

The Planning Department has received and reviewed a nine page site plan, prepared and stamped by Thomas Charles Dixon, PE, last dated April 3, 2017, with sheets labeled C-001: Cover Sheet, C-101: Alignment Plan, C-102: Demolition Plan, C-103: Grading & Drainage Plan, C-104: Erosion Control Plan, C-501: Erosion Control Details, C-502: Site Details, C-503: Accessibility Details 1, C-504: Accessibility Details 2.

The site plan includes a note that the plan is based, in part, on a survey of the property prepared by Kenneth H. Beckman, LS, dated December 8, 2016, however, a copy of this survey was not submitted with the application.

Site Visit

During a site visit conducted by Planning Staff, the land clearing and illegal work was evident throughout the property. The applicant has illegally cleared a large portion of the property, including buffer areas required by the Town Code (see figures 2-6)

Figures 2-6: Images taken during Planning Staff site visit showing disturbed areas and stockpiles of vegetation cleared illegally.

On-Site Material

During the site visit, there were a number of piles of unidentified material present on the subject property (see figures 7-8). The disposal of potentially contaminated materials, as well as the fact that it was brought to the site with no NYSDEC permits and no sort of monitoring or regulation,

raises concerns as to the contents of these piles. Staff recommends that these piles be subjected to sampling and environmental testing through the SEQRA review process to determine whether or not contaminants are present.

Figures 7-8: Images taken during Planning Staff site visit of unidentified material stockpiles, brought to the site with no permits or regulation.

Groundwater

It is noted that public water is not available in the vicinity of the subject parcel. All residential uses in the immediate area use wells, which may be subject to groundwater contamination if the proposed use of the subject parcel is not regulated properly.

Staff recommends groundwater sampling be conducted to establish a baseline of the existing groundwater conditions, including chemical content and identifying the direction of groundwater flow.

Landscaping Buffers

The illegal clearing performed by the applicant eliminated buffers which are required by Town Code with neighboring residential properties (see figures 9-11)

Figure 9: Aerial image, taken from Google maps, dated 2018, which shows a large portion of the property which was illegally cleared by the applicant.

§301-115 C(1)(a) of the Town Code states:

"The minimum required non-disturbed transitional side and rear yards shall be 50 feet. When buildings are less than 5,000 square feet in size, the required side and rear transition yards shall be 25 feet adjacent to the residential district."

The site plan does not propose the required 50 foot non-disturbed buffer as required by code. In order to property evaluate the remaining vegetation on the site, the applicant should submit an updated survey which reflects the illegal clearing that took place on the site in order for the

Planning Board to property contemplate appropriate buffers between the adjacent residential uses.

Figures 10-11: Images taken during Planning Staff site visit identifying the clearing which eliminated required buffers with neighboring residential property.

The site plan appears to indicate that a significant amount of vegetation will be cleared in front of the main building, along the frontage with Middle Road. The clearing in this area is being proposed in order to create drainage recharge areas. The applicant's design professional should

determine whether or not an alternative drainage system could be designed that would meet the drainage requirements of the site without performing the extensive clearing that is presently being proposed by the site plan.

Traffic Impact

The applicant has cleared trees and created an illegal curb cut on Manor Road (figure 12). The site plan proposes curb cuts on both Manor Road and Middle Road.

Figure 12: Image of illegal curb cut and clearing from parcel on to Manor Rd.

Planning Staff recommends that the applicant eliminate the curb cut on Middle Road and utilize the Manor Road access point in order to minimize the additional truck traffic which would impact the residential uses on Middle Road.

A Traffic Impact Statement (TIS) prepared by a Licensed NYS PE is recommended. Through the SEQRA review process, the applicant must identify the number of truck trips that would be generated as a result of the proposed use, as well as identify the types of trucks and the weight of the vehicles that will be utilizing the Town roadways in order to fully analyze the potential impact.

Noise Impact

The proposed siting of a construction & demolition debris recycling facility presents the potential for significant impact for noise pollution for the surrounding residential uses. The applicant must present the Planning Board with appropriate noise mitigation controls.

A noise study is recommended. Through the SEQRA process, the applicant will need to identify the types of equipment used in the operation of their business, the number of machines, the types

of sound levels which would come from the proposed use, as well as assess the increase in noise disturbance from the increase truck traffic in the area.

The Planning Board may also wish to consider covenants on the property which limit hours of operation.

Outdoor Storage

As per §301-114 of the Town Code, outdoor storage is limited to 30% of the parcel area or two acres, whoever is less, and must be suitable screened pursuant to Article XLV of the Town Code.

The site plan proposes a large area for stockpiling materials, however, there are no calculations provided regarding the size of this storage area. The plans must be revised to provide these calculations and show that the plan complies with the Town Code.

The applicant must identify the amount of material which would be process on site, as well as the size of each of the piles. Consistency with the 30% outdoor storage limits must be coordinated with the NYSDEC and handled through the SEQRA process.

Zoning Board of Appeals

The applicant made an application to the Riverhead Zoning Board of Appeals seeking an interpretation that concrete crushing is not a prohibited use within the Industrial A zoning use district.

By ZBA determination No. 2018-008dated April 12, 2018, the ZBA found that:

"Section 301-114(A)(6) of the Riverhead Town Code does not *per se* prohibit "concrete crushing" as a use. This determination is strictly limited to analysis of the text of the Town of Riverhead Zoning code and does not give permission to the applicant to conduct any uses on the premises without the prior approval of the zoning office and receipt of any other approvals and/or zoning/use determinations required from any Town of Riverhead agencies and/or any oth er municipality or agency having jurisdiction"

The applicant went back to the ZBA for a clarification of the use in which the applicant will engage at the aforementioned premises, and by ZBA determination dated September 25, 2018, the ZBA found that :

"It is moved that Appeal 2018-008be clarified in accordance with the request of Riverhead Building Inspector/Zoning Officer to state that Section 301-114(A)(6) of the Town Code does not prohibit "concrete crushing" as previously determined by this Board in its April 12, 2018 determination and that the processing of concrete, asphalt and earth would likewise not be prohibited as part of "concrete crushing" use, but that the processing, storage and/or transfer of garbage, including wood, metals, plastic or any recyclables or household refuse is prohibited."

Paving Specifications

On page two of the site plan, there is a note that indicates that the truck circulation area throughout the site will be an RCA surface, however, page seven of the site plan gives paving details that indicate a 2 inch top course, 2 inch binder course, and 6 inch stabilized NYSDOT sub-base. Clarification is needed as to whether or not the entire truck circulation area will be RCA or the proposed paving scheme.

On-Site Pond

Page 3 of the site plan includes a note that an existing concrete driveway, pond, and wood bridge will removed as a part of the site plan application. No details are given as to the nature of this pond, i.e. is it a man-made feature, does it contain any environmentally sensitive vegetation or wildlife, etc.

An environmental assessment of this water feature must be completed by a Certified Environmental Professional to determine the nature of this wetland and the potential impacts if it is altered.

Referrals

The following agencies/departments have been identified as being involved agencies where coordinate review under SEQRA is required:

1 . New York State Department of Transportation
2. Suffolk County Planning Commission
3. Board of Fire Commissioners
4. Suffolk County Water Authority
5. New York State Department of Environmental Conservation
6. Town of Riverhead Highway Department
7. Town of Riverhead Zoning Board of Appeals
8. Suffolk County Department of Health Services
9. LIPA/PSEG Environmental Division
10. Riverhead Planning Board
11. Suffolk County Department of Public Works
12. Riverhead Town Board
13. Town of Riverhead Office of the Fire Marshal

Suffolk County Planning Commission

In a letter dated August 30, 2017, the Suffolk County Planning Commission considered the site plan application to be a matter for local determination, as there appears to be no significant county-wide or inter-community impacts.

New York State Department of Transportation

Although the subject parcel is not located on a State highway, due to the subject parcel's proximity to SR 25 and the Long Island Expressway, and the potential for the increase for heavy industrial traffic to impact existing roadways and infrastructure, the application will be referred to the NYSDOT for review and comments.

Review and comments from the NYSDOT are pending.

Building Department

In a letter dated September 1, 2017, the Chief Building Inspector had the following comments:

1. Multiple Stop Work Orders have been posted as the proposed use began without permit/approvals in February 2017. Violations issued include clearing and establishing use without site plan approval, disturbance of over 1 acre without SWPPP approval, and work without issued building permit.
2. Proposed principal use is not permitted within the Zoning District. Industrial uses are those involved with manufacturing/creation of a product, typically within a building, i.e. a factory. The proposed use is a salvage/recycling use; breaking down used building and road products into raw materials. Further, the outdoor storage is specifically permitted as an **accessory** use:
    - Accessory uses. Accessory uses shall include those customarily incidental to any of the above permitted uses or specially permitted uses when located on the same lot. Specifically permitted are the following:
        - Outdoor storage, limited to 30% of the parcel area or two acres, whichever is less, suitably screened pursuant to Article XLV, Supplementary Use Regulations, of this chapter.
3. Further comments are withheld pending resolution of item #2.

Stormwater Pollution Prevention Plan

The site plan is proposing more than 1 acre of ground disturbance. As such, the applicant will be required to submit a Stormwater Pollution Prevention Plan, approved by the Town Engineer, prior to final site plan approval.

Next Steps

If the Planning Board concurs with Staff recommendations and issues a Positive Declaration pursuant to SEQRA, the application will move forward to the Scoping Phase of SEQRA review prior to the preparation of a DEIS or FEIS.

cc: Jefferson V. Murphree, AICP, Building & Planning Administrator
Richard Ehlers, Esq., Attorney to the Planning Board
John F. Flood, Jr., Town's Environmental Planner
Craig Zitek, Chief Fire Marshall
Drew Dillingham, Town Engineer
Steven Losquadro, Esq., Applicant's Attorney
Breezy Hill Group VI, LLC., Applicant

APPENDIX B-7
ASSUMPTION OF LEAD AGENCY STATUS AND POSITIVE DECLARATION RESOLUTION 2019-037

Town of Riverhead Planning Board
May 16, 2019

RECEIVED
JUN 03 2019
NELSON & POPE
T Gibbons

TOWN OF RIVERHEAD
PLANNING BOARD
201 HOWELL AVENUE, RIVERHEAD, NEW YORK 11901-2596
(631) 727-3200, EXT. 240, FAX (631) 727-9101

Stanley Carey, Chairman
Ed Densieski, Vice-Chair/Secretary
Joseph Baier, Member
Richard O' Dea, Member
George Nunnaro, Member

May 16, 2019

Steven Losquadro, Esq.
649 Rt. 25A, Suite 4
Rocky Point, NY 11778

Resolution No. 2019-037
Assumes Lead Agency Status for SEQRA Review and Issues Positive Declaration Pursuant to SEQRA for the Site Plan Application of Breezy Hill Group VI, LLC
1792 Middle Road, Calverton, NY
SCTM No. 600-100-2-4.2

Dear Mr. Losquadro:

The following resolution was duly adopted at a meeting of the Town of Riverhead Planning Board held on May 16, 2019:

WHEREAS, the applicant, Breezy Hill Group VI, LLC, has made a site plan application to the Riverhead Planning Board to establish and operate a construction and demolition processing facility (C&D) pursuant to New York State Department of Environmental Conservation Regulations Part 360 Solid Waste and Part 361 on 6.683 acres in the Industrial A zoning use district; and

WHEREAS, the site is located at 1792 Middle Road, Calverton, NY, on a parcel of real property more particularly identified as SCTM No. 600-100-2-4.2; and

WHEREAS, the site is presently improved with a two story single family residence and a one and a one-half story barn/garage; and

WHEREAS, the parcel is located in Suffolk County Groundwater Management Zone III, waste water disposal is existing via conventional septic system, with no public water supply available to the parcel; and

WHEREAS, the attendant site plan, prepared and stamped by Thomas Charles Dixon, last dated April 3, 2017, and site plan application, including a completed Full Environmental Assessment Form (FEAF) dated January 23, 2018, prepared by Nelson, Pope & Voorhis as agent for the applicant has been thoroughly reviewed by Planning Staff and the Planning Board; and

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WHEREAS, by Resolution No. 2018-022, dated March 15, 2018, the Riverhead Planning Board classified the proposed action as an Unlisted Action pursuant to SEQRA and authorized the Planning Department to circulate a request to involved agencies for the Planning Board to assume Lead Agency status for the purposes of SEQRA review; and

WHEREAS, the Planning Department circulated the aforementioned request and received no objections to the Planning Board's request to assume Lead Agency status for SEQRA review.

NOW, THEREFORE BE IT,

RESOLVED, that the Planning Board hereby assumes Lead Agency status for the purposes of SEQRA review; and be it further

RESOLVED, that the Planning Board as SEQRA Lead Agency declares the proposed action may have a significant potential adverse impact on the health, welfare and the environment for the following reasons:

1. The use poses potential threats to the groundwater supply in an area where public water infrastructure is not currently available and whose water usage for uses in the surrounding is provided via wells fed directly from groundwater.
2. The use has the potential increase heavy industrial traffic along roadways within an area containing residential, rural, and industrial uses.
3. The use has the potential to degrade existing roadway and infrastructure as a result of increase heavy industrial traffic.
4. The use has the potential to increase noise levels and present impacts to neighboring residential
5. As a result of illegal land clearing by the applicant, the use has the potential to create significant adverse visual impacts to neighboring residential properties; and be it further resolved

RESOLVED, the Planning Board, as Lead Agency, hereby issues a Positive Declaration, requiring the formal process, public input, and due deliberation attendant to the preparation of an Environmental Impact Statement pursuant to the State Environmental Quality Review Act; and be it further

RESOLVED, the applicant be directed to prepare a draft Scope pursuant to SEQRA for review by the Lead Agency; and be it further

RESOLVED, the requisite SEQRA Notice of Determination/Positive Declaration be filed with the NYSDEC Environmental News Bulletin (ENB) and all relevant information be filed with the Town Clerk; and be it further

RESOLVED, that the Clerk of the Planning Board is hereby authorized to forward a copy of this resolution to Sam Stasi, 2186 Kirby lane, Syosset, NY 11791; Hrvoje Marnika, PE, c/o Nelson & Pope Engineers & Surveyors, 572 Walt Whitman Road, Melville, NY 11747; the Riverhead Building Department; the Office of the Town Attorney; the Planning Board Attorney; and the Town Clerk; and be it further

RESOLVED, that all Town Hall Departments may review and obtain a copy of this resolution from the electronic storage device and if needed, a certified copy of same may be obtained from the Office of the Town Clerk.

Very truly yours,

Stanley Carey, Chairman
Riverhead Planning Board

A motion was made by Mr. Nunnaro and seconded by Mr. Baier that the aforementioned resolution be approved:

THE VOTE

BAIER _X_ YES ___ NO O'DEA _X_ YES ___ NO

NUNNARO _X_ YES ___ NO DENSIESKI _X_ YES ___ NO

CAREY _X_ YES ___ NO

THIS RESOLUTION _X_ WAS ___ WAS NOT
THEREFORE DULY ADOPTED

APPENDIX B-8
FINAL SCOPE

Town Planning Board
February 20, 2020

TOWN OF RIVERHEAD
PLANNING BOARD
201 HOWELL AVENUE, RIVERHEAD, NEW YORK 11901-2596
(631) 727-3200, EXT. 240, FAX (631) 727-9101

Stanley Carey, Chairman — *Joseph Baier, Member* — *Richard O' Dea, Member*
Ed Densieski, Vice-Chair/Secretary — *George Nunnaro, Member*

February 20, 2020

Steven Losquadro, Esq.
649 Rt. 25A, Suite 4
Rocky Point, NY 11778

Resolution 2020-021
Adopts Final Scope pursuant to SEQRA for the Site Plan Application of
Breezy Hill Group VI, LLC
1792 Middle Road, Calverton, NY
SCTM No. 600-100-2-4.2

Dear Mr. Losquadro:

The following resolution was duly adopted by the Town of Riverhead Planning Board at a meeting held on February 20, 2020:

WHEREAS, the Riverhead Planning Board is in receipt of a site plan application to establish and operate a construction & demolition processing facility (C&D) pursuant to New York State Department of Environmental Conservation Regulations Part 360 Solid Waste and Part 361 on 6.683 acres of land located within the Industrial A (Ind A) zoning use district; and

WHEREAS, the subject parcel is located at 1792 Middle Road, Calverton, NY, on a parcel of real property more particularly identified as SCTM No. 600-100-2-4.2; and

WHEREAS, by Resolution No. 2018-022, dated March 15, 2018, the Riverhead Planning Board classified the proposed action as an Unlisted Action pursuant to SEQRA and authorized the Planning Department to circulate a request to involved agencies for the Planning Board to assume Lead Agency status for the purposes of SEQRA review; and

WHEREAS, by Planning Board Resolution No. 2019-037, dated May 16, 2019, the Riverhead Planning board assumed Lead Agency status and issued a Positive Declaration pursuant to SEQRA, as the proposed action may have a significant potential adverse impact on the health, welfare, and the environment for the following reasons:

1. The use poses potential threats to the groundwater supply in an area where public water infrastructure is not currently available and whose water usage for uses in the surrounding is provided via wells fed directly from groundwater.

2. The use has the potential increase heavy industrial traffic along roadways within an area containing residential, rural, and industrial uses.
3. The use has the potential to degrade existing roadway and infrastructure as a result of increase heavy industrial traffic.
4. The use has the potential to increase noise levels and present impacts to neighboring residential
5. As a result of illegal land clearing by the applicant, the use has the potential to create significant adverse visual impacts to neighboring residential properties; and

WHEREAS, the applicant submitted a Draft Scope entitled "Breezy Hill Group VI, LLC Asphalt and Concrete Crushing and Screening Facility, Draft Environmental Impact Statement Draft Scope," dated December 26, 2019, prepared by Nelson, Pope & Voorhis, LLC; and

WHEREAS, the Planning Board held a public scoping session at its meeting on the afternoon of February 20, 2020, to receive public input on the contents of the Draft Environmental Impact Statement Draft Scope; and

WHEREAS, all comments that have been received have been reviewed, analyzed, and assembled into a final draft scope. Now, therefore be it

RESOLVED, that the Planning Board of the Town of Riverhead hereby finds the contents of this final scope to be in an acceptable form to prepare a Draft Environmental Impact Statement on; and be it further

RESOLVED that the Clerk for the Planning Board is hereby authorized to forward a certified copy of this resolution to the Town Clerk, the NYSDEC Environmental News Bulletin, and to the applicant or his agent; and be it further

RESOLVED, that all Town Hall Departments may review and obtain a copy of this resolution from the electronic storage device and if needed, a certified copy of same may be obtained from the Office of the Town Clerk.

Very truly yours,

Stanley Carey
Riverhead Planning Board Chairman

A motion was made by Mr. Densieski and seconded by Mr. Nunnaro that the aforementioned resolution be approved:

THE VOTE

BAIER _X_ YES ___ NO O'DEA _X_ YES ___ NO
NUNNARO _X_ YES ___ NO DENSIESKI _X_ YES ___ NO
CAREY _X_ YES ___ NO

THIS RESOLUTION _X_ WAS ___ WAS NOT
THEREFORE DULY ADOPTED

CC: Building Department
Town Clerk
Richard Ehlers, Attorney to the Planning Board
Chic Voorhis, Nelson, Pope & Voorhis, Applicant's Environmental Professional

BREEZY HILL GROUP VI, LLC
ASPHALT AND CONCRETE CRUSHING AND SCREENING FACILITY

DRAFT ENVIRONMENTAL IMPACT STATEMENT

FINAL SCOPE

Prepared by: Lead Agency: Town of Riverhead Planning Board
c/o Riverhead Planning Department
201 Howell Avenue
Riverhead, NY 11901

Contact person: Greg Bergman, Planning Aide
631-727-3200 ex. 264

Prepared for: Breezy Hill Group VI, LLC
c/o Steven Losquadro, Esq.
649 Route 25A, Suite 4
Rocky Point, New York 11778

Date: February 25, 2020

Contents

1.0 INTRODUCTION

This document is the Draft Scope for the Draft Environmental Impact Statement ("DEIS") for the Breezy Hill Group Asphalt and Concrete Crushing and Screening Facility Site Plan. The Town of Riverhead Planning Board completed a coordinated review to assume lead agency on March 15, 2018, and assumed Lead Agency and issued a Positive Declaration by resolution on May 16, 2019. The State Environmental Quality Review Act ("SEQRA") requires that once a Positive Declaration is issued, a Scoping Process much occur to determine the scope and content of the DEIS pursuant to 6NYCRR Part 617.8. Based on SEQRA, the Draft Scope must be circulated for public and interagency input, and a Final Scope shall be adopted by the lead agency within 60 days of filing of the Draft Scope, or the Applicant may proceed to submit a DEIS in conformance with the Draft Scope. A copy of this Draft Scope will be made available for public participation and review at the Town Clerk's office and on the Town's official website and will be circulated by the Town to involved and interested agencies and parties of interest, and a scoping meeting will be held at the discretion of the Town Planning Board.

The DEIS that is prepared, including all essential data collection, calculations, analyses, tables, plans, figures, appendices, and written materials will assist the lead agency (Town of Riverhead Planning Board) in:

- complying with the standards and procedures of 6 NYCRR Part 617, State Environmental Quality Review Act ("SEQRA");
- identifying and further assessing potential adverse environmental impacts from the Proposed Action;
- developing reasonable and appropriate environmental impact prevention and/or mitigation strategies to reduce impacts from the project to the maximum extent practicable; and
- preparing and adopting a SEQRA Findings Statement and rendering a final decision ("Determination of Significance") regarding the Breezy Hill Group Site Plan environmental review.

After the Final Scope has been accepted by the Planning Board, filed with the Town Clerk, posted on the Town's website, and noticed in conformance with SEQRA, the DEIS will be prepared by and filed by the Applicant in accordance with the accepted Final Scope and the content requirements set forth under SEQR Subsection 617.9 (b).

Once the DEIS has been completed and submitted to the Planning Board for review, the Board will determine the consistency of the DEIS with the Final Scope and SEQRA regulations. If the DEIS is found to not be consistent with the Final Scope, the Planning Board will identify the deficiencies to the Applicant and their environmental consultants and will provide instruction as to the necessary revisions to ensure the DEIS is suitable for acceptance.

Once the DEIS is resubmitted and is found to comply with the scope and content requirements of the Final Scope and SEQRA regulations, the Planning Board will make the document available online and at the Town Clerk's office for public review, refer the document to involved/interested agencies and parties of interest, file the requisite ENB notice, determine if a public hearing is

necessary, and if so, submit a notice of public hearing in the ENB and a local newspaper of general circulation.

2.0 DESCRIPTION OF ACTION

The proposed Action involves a request for Site Plan approval from the Town of Riverhead Planning Board for an asphalt and concrete crushing and screening facility on a 6.68-acre industrially zoned property currently containing a single-family residence and residential accessory structures. The existing one-to-two story frame/stucco residence will be converted to an office and an existing 1.5-story frame barn/garage will be used as storage space for facility operations. An existing in-ground swimming pool and other minor residential accessory structures will be removed. A small (0.02±acre) unmapped man-made pond will be filled.

The proposed facility will operate two crushing/screening equipment stations, and there will be a total of five asphalt/concrete stockpiles. Ten-foot-deep buffers will be established/maintained along the eastern, western and southwestern property boundaries and 20-foot deep buffers will be provided/maintained along the southeastern and northerly property boundaries along Middle Road and Manor Road, respectively. Access to the office will be from Middle Road and truck access to the crushing and screening facility will be from Manor Road. A 20-foot wide recycled concrete aggregate ("RCA") surfaced access and driveway "loop" will be provided around the crushing and screening stockpile area in the northerly half of the property to provide convenient access to the stockpile area and two truck scales will be installed along the driveway. Driveway traffic would be one-way in a counterclockwise direction. A second 24-foot wide access will be provided off Middle Road to be used as an office access and this driveway will connect to the circular driveway to the north to facilitate interaction between the office portion of the site and adjacent work area. Two stormwater pretreatment sediment basins will be constructed on-site to address site generated runoff. Sediment Basin "A" will have a total storage volume of 5,535± CF and Sediment Basin "B" will have a storage volume of 7,788± CF. The two sediment basins will be equipped with overflow pipes that will discharge to a 21,509± CF drainage reserve at the south end of the property. The total combined runoff storage volume from the proposed drainage system is 34,832± CF. The drainage reserve will contain two 10-foot diameter leaching pools to recharge stormwater on-site. Existing vegetation in the southeastern and southwestern portions of the site will remain and landscaping will be provided in perimeter areas as needed to properly screen and buffer the proposed operation. The proposed driveway will be surfaced with RCA and topsoil and hydro seeding is proposed in non-work areas.

In the description of the proposed action the DEIS must address the construction and demolition materials that are permitted pursuant to 6NYCRR Part 360/361 regulations. Although the proposed use is supposedly limited to asphalt and concrete debris from structures and roadways, other C&D materials including brick, rock, fill material, roofing shingles or unadulterated wood are also permitted under the NYSDEC regulations. The DEIS shall address the initial limited use for asphalt and concrete and potential modification to include brick, rock, fill material, roofing shingles and unadulterated wood.

The description of the proposed action shall describe all the material handling equipment to be used in the processing of the imported C&D materials, how the importation and exportation shall be monitored for quantity and inventory controls, and what sources the material is imported from. The Town of Riverhead is unaware of any major local demolition projects involving roadways and or structures and does not recognize and significant need for the facility within the Town.

3.0 LOCATION

The subject property is located north of Middle Road, south of Manor Road, and east of Twomey Avenue in the Hamlet of Calverton, Town of Riverhead, Suffolk County, New York. The property address is 1792 Middle Road, Calverton, and its Suffolk County Tax Map number is: District 600, Section 100, Block 2, Lot 4.2. The 6.68-acre parcel has 232.58 feet of direct frontage on Middle Road and 366.06 feet of frontage on Manor Road. The property is in the following service, zoning and environmental districts:

- Riverhead Central School District
- Riverhead Free Library District
- Riverhead Town Police District
- Riverhead Volunteer Fire District
- Riverhead Volunteer Ambulance District
- Riverhead Water District
- Industrial A Zoning District
- Central Suffolk Special Groundwater Protection Area
- Long Island North Shore Heritage Area

See attached **Location Map**.

4.0 PURPOSE AND INTENT OF DRAFT SCOPE

The DEIS for the Subject Action will focus on environmental issues of concern (i.e., potential moderate and/or large environmental impacts) that were identified by the Town in the May 9, 2019 Planning Staff Report and the May 16, 2019 Positive Declaration. The DEIS will provide the background information and analyses necessary to assist the Planning Board in understanding the details of the project, fulfilling SEQRA's "hard look" mandate, and ensuring that the DEIS fully conforms to the standards, specifications, intent and purpose of 6 NYCRR Part 617, Section 617.9, "Preparation and Content of Environmental Impact Statements."

The Planning Board has determined that the Proposed Action has the potential to result in one or more moderate and/or large environmental impact(s); therefore, additional environmental review in the form of an Environmental Impact Statement ("EIS") is necessary so that these potential environmental impacts can be more fully examined and vetted, and so that guidelines and procedures can be put into place to prevent and/or mitigate impacts to the maximum extent practicable as required by SEQRA.

5.0 INVOLVED AND INTERESTED AGENCIES, REQUIRED PERMITS AND APPROVALS AND/OR REVIEWS

Based on the Town Planning Department's May 9, 2019 memo, considerable outreach will be conducted by the Town to obtain input from various "involved" and "interested" agencies,[1,2] municipal boards and offices, and applicable community service providers. The Planning Department's staff memo includes a list of agencies that the Department plans on referring the application materials to (see list below). It is expected that the Town will forward any relevant responses from this outreach to the Applicant for review and consideration as part of the Final Scope and DEIS preparation.

- Riverhead Town Board
- Riverhead Planning Board
- Riverhead Zoning Board of Appeals
- Riverhead Highway Department
- Riverhead Office of the Fire Marshal
- Board of Fire Commissioners
- Suffolk County Department of Public Works
- Suffolk County Planning Commission[3]
- Suffolk County Water Authority[4]
- New York State Department of Environmental Conservation
- New York State Department of Transportation
- LIPA/PSEG Environmental Division

Required permits and approvals for the action from agencies or entities with permit or approval authority (i.e., "involved agencies") are as follows:

- Riverhead Planning Board (Site Plan Approval)
- Town Building Department (Demolition and Building Permits)
- Suffolk County Department of Health Services (Wastewater disposal)
- New York State Department of Environmental Conservation (NYCRR Part 360/361 Solid Waste Management/Material Recovery Facilities Permit; Article 19 State Facility Permit, General Stormwater Construction Permit)

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[1] *Involved agency* means an agency that has jurisdiction by law to fund, approve or directly undertake an action. If an agency will ultimately make a discretionary decision to fund, approve or undertake an action, then it is an "involved agency" notwithstanding that it has not received an application for funding or approval at the time the SEQR process is commenced. The lead agency is also an "involved agency".

[2] *Interested agency* means an agency that lacks the jurisdiction to fund, approve or directly undertake an action but wishes to participate in the review process because of its specific expertise or concern about the proposed action. An "interested agency" has the same ability to participate in the review process as a member of the public.

[3] In a letter to the Town dated August 30, 2017, the SCPC determined that the subject action is a matter for local determination, as there appears to be no significant county-wide or inter-community impacts.

[4] NP&V notes that the property is within the Riverhead Water District.

6.0 POTENTIAL MODERATE OR LARGE IMPACTS IDENTIFIED BY THE EAF PART 3/ DETERMINATION OF SIGNIFICANCE

Potential moderate or large impacts that were identified by the Town that must be addressed in the DEIS are as follows:

1. Potential impacts to groundwater and local water resources.
2. Noise pollution.
3. Dust impacts.
4. Traffic impacts.
5. Roadway and infrastructure.
6. Removal of agricultural soils.
7. Stormwater management and drainage. Why is a recharge basin being used for stormwater control? Leaching pools will reduce the clearing required and reduce land disturbance – justify this control method. The DEIS shall provide for an alternative drainage design analysis that uses leaching pools.
8. Removal of existing vegetation.
9. Loss of required screening and buffers with residential properties.
10. Compatibility with the Town's Master Plan.
11. Impacts to the manmade pond and potential wetland plan removal.
12. Lack of required vegetative buffers as a result of clearing the entire site.
13. Construction and long term operating impacts generated by noise, vibration and impacts to the adjacent residential homes and commercial properties.
14. Identify of surrounding land uses and impact on community character and compatibility.
15. Are variances required- if so what are they?
16. Compatibility with the Town's SWMMP update (available from Town Engineering Department).
17. Investigate need for sound wall along residential properties to the east.
18. Identify the site's location with regard to Environmental Justice Areas and identify potential impacts on the identified population, impoverished persons, minorities and/or disproportionate adverse impacts on the EJ community.
19. Investigate groundwater quality and directional flow- by the installation of GW monitoring wells.
20. Provide soil and prior stockpile sample lab results to establish existing conditions.
21. Provide full description and ability to meet compliance with NYSDEC Part 360 regulations for C&D Processing Facilities. Provide full permitting/applications submitted to NYSDEC and status of the application.
22. List of all land use and/or NYSDEC notice of violations, stop work orders, fines and corrective actions and or settlements.
23. Address Environmental Justice areas and any potential impacts on those communities, including an analysis of potential impacts to land values of neighboring residential properties as a result of the establishment and operation of the proposed facility.

ALTERNATIVES

In addition to the No-build alternative the DEIS shall evaluate the following uses permitted in the Industrial A zoning uses districts by Riverhead Town Code 301-114:

Warehouse/Self Storage

Agricultural production/Nursery Grower

7.0 INITIAL IDENTIFICATION OF MITIGATION MEASURES

Preliminary impacts and mitigation actions that have been identified are listed below. It should be noted that the final lists of impacts and mitigation strategies will depend on the detailed analyses and conclusions conducted during the DEIS process. Therefore, impact prevention and mitigation techniques may be expanded upon, replaced, or modified based on the findings of the review. Additional policies and standards that are not currently listed may also be identified and added to the list as needed.

Potential impacts and mitigation to groundwater and local water resources:

- Based on SCDHS standards, the existing residential use would be expected to generate no more than 300 gpd of wastewater that is discharged to an on-site septic system; whereas the use of the building for offices is expected to generate 218± gpd based on the proposed engineering plans and EAF Part I. The total permissible sewage discharge on the 6.68-acre property using a conventional on-site septic system in SCDHS' Groundwater Management Zone III is 2,004.9 gpd thus allowing for continued use of a conventional on-site system.
- Public water is not present at the site, therefore, a private well or wells will be used. The Proposed Action may increase the overall potable water consumption at the site based on the 218± gpd for "domestic" use, 2,232± gpd for landscape irrigation, and 720± gpd for dust suppression projections for a total estimated water demand of 3,170± gpd. Maximum pumping capacity of on-site well(s) is estimated to be 1,380 gpm.
- The Subject Property is within the Central Suffolk Special Groundwater Protection Area/Critical Environmental Area. The project and any potential groundwater impacts will be assessed against the recommendations of the 1992 Long Island Comprehensive Groundwater Protection Area Plan, and mitigation will be identified if and as needed.
- Existing soil/C&D stockpiles on-site have been sampled and tested by NP&V to determine if they contain actionable levels of regulated pollutants and the results and recommendations of this sampling are summarized in a September 26, 2018 Site Characterization Report and Remediation Plan. The DEIS shall provide all analytical records for the sample results, including chain of custody forms, QA/QC protocols and provide a detailed explanation as to how these stockpiles arrived at the subject site.
- There are no wetlands or surface waters on or adjacent to the site except the small man-made unregulated pond on-site which will be removed.
- Stormwater runoff from a two-inch design storm will be captured and recharged on-site. Pretreatment sediment basins will be provided to allow sediment and other pollutants to

settle out improve the quality of stormwater recharge and overflow will discharged to a drainage reserve for recharge.

- Projects involving disturbance of more than one acre of land must file for and obtain a State Pollution Discharge Elimination System ("SPDES") General Permit for stormwater and prepare a Stormwater Pollution Prevention Plan ("SWPPP") (unless otherwise exempt) to ensure compliance with water quality and quantity requirements pursuant to the NYSDEC General Permit for Stormwater Discharges from Construction Activities (GP 0-15-002).

Noise & Vibration Pollution Impacts and Mitigation:

- Future demolition, site preparation and construction and operating activities must conform to the standards and specifications of the Town's noise ordinance as set forth in Chapter 251, Article I, "Noise," Riverhead Town Code, including conformance to the maximum prescribed noise levels for specified activities and times. A noise analysis shall be conducted to identify key noise generators and sensitive sound receptors and determine existing and future sound levels. Mitigation shall be required for activities that exceed Town standards or that may adversely affect nearby noise sensitive land uses. Possible mitigation may include further restrictions on the times or days of the week for such activities, solid fencing or sound walls, earthen berms, adequate buffers/setbacks, or other innovative methods and techniques that can attenuate noise. The DEIS must complete an vibration analysis through collection of verifiable data at a facility using equipment and methods that mimic the proposed material processing facility's operation. The 6NYCRR Part 360/361 regulations require a noise monitoring program. The DEIS shall describe compliance with the State regulations and fully describe the noise monitoring program. A summary of these requirements are:

  A Noise Monitoring and Control Plan, if required pursuant to subparagraph (3) (ii) of this subdivision, must include the following:

  (a) a description of areas of operation where noise propagation off-site is most probable to occur;
  (b) mitigation measures (*e.g.*, real-time monitoring system, noise barriers) or modified operational controls that would be utilized to mitigate facility noise when operations are occurring (*e.g.*, reduced equipment operation, limiting trucks tipping in the specified area, limited hours of operation);
  (c) protocol for noise monitoring including monitoring locations, methods and equipment, monitoring frequency and duration, and action levels;
  (d) criteria for discontinuing the noise monitoring and control plan.

Dust impacts:

Dust (and fumes) can adversely affect human respiratory health, especially those with asthma, allergies or other lung conditions, and cause other irritations such as eye discomfort. Dust can also have aesthetic impacts such as when it accumulates on cars and homes. Control of airborne dust during swimming pool and man-made pond removal and backfilling, drainage facility excavations, driveway construction, and future materials processing activities will help to prevent off-site

transfer of soil by wind and protect air quality and public health. Preliminary dust mitigation, may include but is not necessarily limited to:

- Stabilization of site driveways and site accesses to reduce dust during demolition, excavation, filling, grading, construction, and future activities associated with material processing operations. Examples include installing antitracking pads, applying two-inch+ stone groundcover over bare soil and providing a small mountable berm at the site entrance/exit during construction, and stabilizing proposed driveways with recycled concrete aggregate ("RCA") as proposed.
- Limit clearing to only what is necessary using project limiting fences, if necessary, during site clearing and site preparation and construction. This will also prevent unnecessary encroachment into perimeter buffer areas and ensure that adequate yard setbacks, vegetated buffers, and screening is maintained. As per the Town of Riverhead Planning Department Staff Report dated May 9, 2019, the site has been cleared of vegetation and stockpiles of aggregates, soils, trees and stumps were reported during the staff site visit. The Town of Riverhead has no record of any site plan approvals or building permits in support of said activities. The DEIS shall address all clearing conducted at the site, explain why said activity was performed, identify all violations associated with all activities undertaken to date and explain how the applicant proposes to "Limit clearing to only what is necessary using project limiting fences, if necessary, during site clearing and site preparation and construction. This will also prevent unnecessary encroachment into perimeter buffer areas and ensure that adequate yard setbacks, vegetated buffers, and screening is maintained."
- Properly phase site work to reduce the total land area that will be disturbed/exposed to the elements at one time.
- Comply with any requirements for a SPDES General Stormwater Construction Permit, SWPPP (if required), and Erosion Control Plan. Implement stormwater, erosion, sedimentation, and dust controls such as installation of silt fencing around work areas and stockpiles and installing sediment traps and curb and grate inlet protection.
- Designate an appropriate location for storing demolition, construction, and site operations vehicles, equipment, and materials to reduce unnecessary activity and disturbance in non-work areas.
- Restrict heavy truck and equipment speeds on-site to 10 mph by posting speed limit signs along the driveway.
- Revegetate or reseed areas that are presently cleared but will not be used for future work activities; consider the use of mulch in places such as planted areas to stabilize soil.
- Periodically dampen soils on windy days, during heavy vehicle activities or as otherwise needed to keep dust down. Apply spray adhesives, if necessary, per plan, to address dust in work areas as needed.
- Stabilize steep slope/bank areas with retaining walls, if and as necessary, and revegetate or reseed adjacent exposed soils that are not within proposed work areas.
- Establish a vehicle washout station on-site to remove dust and dirt from trucks prior to leaving the property.

Removal of Agricultural Soils:

- The site contains some soils that are well-suited for farming, specifically Haven loam (HaB) and Riverhead sandy loam (RdB) soils, and to a lesser extent Riverhead sandy loam (RdC) soils which are less suited for this purpose due to slope. Approximately 2.1± acres or 31± percent of the 6.68-acre site contains Carver and Plymouth sands (CpC) which have severe limitations for agricultural use.
- The Subject Property is currently developed with a single-family home, barn, swimming pool and other accessory structures. The presence of these features, along with the minimal size of the lot, the presence of some soils with severe limitations for use in agriculture (CpC soils), the presence of some moderate and steep slopes, and the property's industrial zoning, place limitations on its potential use for any meaningful agricultural activities in the future.
- Any removal of agricultural soils (i.e., quality topsoil for growing) will be reviewed further in conjunction with the Soil Survey capability classifications, New York Agricultural Land Classification data, and other available information. Mitigations will be identified as appropriate.
- Impacts to agricultural soils should be considered along with dust related impacts which are discussed above, as there is significant overlap in terms of soil resource protection, potential impacts, and mitigations. Many if not all the above control techniques that were described under the topic of "dust" will be helpful in keeping agricultural soils onsite.
- Soils will be retained on-site to the maximum extent possible. Soil from areas that are to be excavated such as the proposed stormwater pretreatment basins and the drainage reserve proposed at the south end of the site will be used to backfill the swimming pool excavation and man-made pond and will be generally incorporated back into the property to provide suitable grades and topsoil in areas that may be landscaped for screening and buffering.
- If clean quality agricultural topsoil must be removed from the site, it should be reused as a growing medium, topsoil, or other productive use elsewhere.

Stormwater Management and Drainage:

- Additional runoff will be generated due to the construction of the proposed circular driveway which will be composed of RCA. Runoff will have to be properly controlled and recharged on-site.
- A soils classification based on soil borings will be performed to determine actual on-site soil conditions for the purpose of drainage system design, stormwater recharge, and driveway construction. If unsuitable subsoils are found in connection with site-specific development, techniques such as deep compaction or over-excavation and replacement of unsuitable fill materials with clean well-drained may be utilized.
- Properly grade the site to promote positive drainage and install appropriate drainage infrastructure to capture and retain stormwater runoff from a two-inch design storm on-site.
- Consider the best means to collect and recharge stormwater on the property without unnecessarily removing existing vegetation. If this is not possible construct a drainage

reserve area and two pretreatment sediment basins as currently proposed. Efforts should be made to limit the amount of clearing.

- Require compliance with a SPDES General Stormwater Construction Permit and Stormwater Pollution Prevention Plan ("SWPPP") for disturbance of more than one acre of land that may discharge to surface water.
- Retain as much vegetation on-site as possible including required perimeter buffer areas to absorb and transpire precipitation and facilitate ground infiltration. Augment plantings as needed.

Removal of existing vegetation and loss of required screening and buffers with residential properties:

- Removal of vegetation can affect the visual character of the site and reduce buffering.
- Issues relating to the removal of vegetation for stormwater infrastructure and restrictions on the area of on-site materials storage (maximum 30 percent) will be further examined, addressed and/or mitigated. Efforts will be made to reduce clearing to only what is necessary and to preserve vegetated perimeter growth as a windbreak, dust barrier, visual screen, and vegetated buffer and setback.
- Clearing should be limited to what is necessary, using existing and/or native or well-adapted plant species as part of landscaping, stormwater pretreatment and temporary detention, and other approaches as applicable. Any vegetation that may be planted should be adapted to ensure survival and reduce or eliminate the need for watering, fertilizers or pesticides. Species listed on the NYSDEC's invasive and prohibited species lists will not be planted.
- Plans should be submitted showing any additional vegetative screening that may be necessary, the locations of any plantings by species, and the number of individuals of each species proposed.
- Any potential issues relating to outdoor lighting will be discussed and efforts will be made to reduce light trespass, glare etc. if buffers are determined insufficient.

Traffic Impacts/Roadway and Infrastructure:

- Truck access will be taken from Manor Road to reduce potential noise and traffic impacts on existing residences from truck traffic.
- A traffic study will be prepared to assess traffic related impacts and methods to reduce impacts.
- The Town has made a referral to the NYSDOT as truck traffic in the area is likely to travel along the Long Island Expressway and Middle Country Road (SR 25). The project team will review any requirements or recommendations from the NYSDOT and will implement or otherwise address them.
- Construction access and on-site circulation will be discussed, and Town traffic and engineering review will be required.
- Other impacts on road infrastructure will be addressed in a separate section discussing construction impacts (see DEIS outline below).

Compatibility with the Town's Master Plan (to be addressed in the DEIS under "Land Use, Zoning and Plans"):

- Existing and proposed land uses, the Town Zoning Code, and the Town's Master Plan will be reviewed and policies affecting the site or proposed development will be identified. Any inconsistencies will be identified and the means to address any inconsistencies will be recommended.

Impacts to Wildlife:

- An analysis of the loss of wildlife habitat as the result of unpermitted clearing performed on the subject property, including an analysis of any threatened or endangered species in the vicinity of the project location, i.e. northern long eared bat.

8.0 OUTLINE AND FORMAT OF DEIS

The proposed scope, content and general format of the DEIS are as follows:

Cover Page
Inside Cover Page
Table of Contents
Executive Summary
1.0 DESCRIPTION OF THE PROPOSED ACTION
1.1 Project Background, Need, Objectives and Benefits
1.1.1 Project Background *(Provide description of the site, setting, and application history. Describe project in the context of adjacent and nearby sites.)* As per the Town of Riverhead Planning Department Staff Report dated May 9, 2019, the site has been cleared of vegetation and contains stockpiles of aggregates, soils, trees and stumps were reported during the staff site visit. The Town of Riverhead has no record of any site plan approvals or building permits in support of said activities. The DEIS shall address in detail, all clearing, grading, land disturbance, demolition, and similar activities conducted at the site, explain why said activities were performed, identify all violations (local, and state) associated with all activities undertaken to date. The DEIS shall also provide a timeline of when the activities had reportedly occurred and the status of each violation, together with all records and documentation. The applicant is directed to Town Code "**Article LVI Site Plan Review Section 3011-303 General Requirements: Land Clearing:** No person shall undertake or carry out any such activity or use, including without limitation any grading, cutting and filling, excavating or tree removal associated therewith, without first having obtained site plan approval therefor, pursuant to the provisions of this article, posting a performance bond provided for herein and securing a land clearing permit pursuant to Chapter 217, Buildings, Building Construction

and Improvements and Housing Standards, Parts 1 and 2, and/or a permit pursuant to Chapter 229, Articles I and II. Any landowner found guilty of violating this article shall be fined at the rate of $1000.00 per day from the day of discovery of the incident until an approved restoration plan is enacted."

1.1.2 Public Need and Objectives *(Justify proposed project in terms of Town goals and policies.)* The Town of Riverhead is unaware of any major local demolition projects (short or long term) involving roadways and or structures and does not recognize a significant need for the facility within the Town. The Public Need and Benefit section must elaborate on the purpose of siting the solid waste facility within Riverhead. The DEIS shall assess compliance with Town Code Chapter 273 Solid Waste and identify compliance with its purpose, requirements, benefits and goals to the Town of Riverhead for the facility's siting within the Town.

1.1.3 Objectives of the Project Sponsor *(Provide discussion of the applicant's goals in pursuing proposed project.)*

1.1.4 Benefits of the Project *(Provide discussion of the benefits to accrue from the proposed project.)*

1.2 Location *(Using appropriate mapping and/or tables, describe location of site, in terms of address, relationship to local streets and landmarks, tax map number, adjacent/nearby significant properties, special districts, etc.)* Address Environmental Justice areas and any potential impacts on those communities.

1.3 Project Design and Layout

1.3.1 Overall Site Layout *(Brief description of the site, land use, and project layout; note site acreage, existing and proposed structures and/or features, access points, traffic circulation, services, utilities, site quantities table; etc.)*

1.3.2 Grading and Drainage (Describe the portion of site to contain impervious surfaces; any necessary clearing or grading, volumes of soil to be excavated, cut/fill brought to or removed from site, and maximum depths of cut/fill; describe existing drainage and proposed drainage system if any and provide capacity and other related information, as necessary.) Leaching pools will minimize clearing and reduce land disturbance – justify the proposed stormwater control method depicted on the "Preliminary Site Plan for 1792 Middle Road at Calverton," sheet c-103 Grading & Drainage Plan, prepared by Nelson & Pope, dated April 3, 2017. The DEIS shall provide for an alternative drainage design analysis using only a vegetated swale with a series of leaching pools, to maximize restoration of vegetative buffers and site landscaping.

1.3.3 Access, Road System and Parking *(Describe/discuss driveway layout, traffic circulation, conformance to design requirements for fire/emergency access, road restrictions, and parking design, arrangement, and approximate timeframe of storage.)* The site layout depicted on the "Preliminary Site Plan for 1792 Middle Road at Calverton," prepared by Nelson &

Pope, dated April 3, 2017 shows site access from Manor Road and from Middle Road. These ingress/egress points shall be analyzed in the Traffic Impact Study (TIS) to explain purpose, need and benefit of two access points. Section 3.4 Transportation shall describe the TIS which must include an assessment of site access, internal traffic flow, traffic controls, que assessment and potential conflicts between C&D stockpiles, operating equipment and internal vehicular traffic, as well as traffic movement in and out of the site.

1.3.4 Site Landscaping, Buffers, and Vegetative Screening *(Provide information on the type, amount and location of landscaping, buffers, transition yards, and/or screening necessary, and proposed.)*. The "Preliminary Site Plan for 1792 Middle Road at Calverton," submission prepared by Nelson & Pope, dated April 3, 2017, does not include a Landscape Plan. Due to the significant disturbance to vegetation and grading at the site the DEIS shall provide a comprehensive Landscape Plan together with a separate vegetative Restoration Plan in response to the prior clearing conducted at the site, pursuant to **Article LVI Site Plan Review Section 3011-303 General Requirements: Land Clearing**.

1.4 Construction and Demolition Operations

1.4.1 Construction *(Brief description of demolition including removal of swimming pool, paved court, fencing, man-made pond, and any other miscellaneous features or accessory structures; required site preparation for use including, grading, and construction of interior access road, heavy vehicle routes, and any street restrictions; briefly describe dust, erosion, and sedimentation controls (silt fencing, inlet protection, stabilized construction accesses, soil wetting, etc.), days of week and hours of day work is to be performed; vehicle, equipment, and materials staging areas.)*

1.4.2 Operations *(Discuss proposed activities, security measures, days and hours of operations, deliveries, on-site parking, reuse of existing residence and barn.)*
The Operations shall provide the following as per 6NYCRR Part 360 requirements (NYSDEC Solid Waste Facility Permit requirements):
Operations and maintenance plan. The plan must include the following:

(a) a description of the overall operation of the facility, including procedures to be followed during start up and scheduled and unscheduled shutdown of operations;
(b) the type, purpose, size, capacity, and associated detention times for all waste handling, storage, and processing equipment and structures, including back-up facilities and equipment;
(c) a process flow diagram for waste during normal operation. The flow diagram must indicate the average and

maximum quantity of waste handled on a weight and volume basis;
(d) a description of all machinery, equipment, and structures used in waste management operations of the facility, including the design capacity;
(e) a description of the drainage system used for the collection and storage of leachate and the method and location used for disposal of the leachate;
(f) the monitoring, maintenance and inspection procedures related to waste management;
(g) a description of the actions to be taken in response to significant interruptions to the facility's normal operations;
(h) the schedule of operation including the days and hours when the facility will be open to accept and transfer waste, and the days and hours when operations will occur within the facility;
(i) a list of all equipment and instruments requiring calibration and a schedule of proposed calibration intervals;
(j) the estimated maximum daily traffic flow to and from the facility, the type and size of vehicles, and the maximum number of vehicles that can be accommodated on site;
(k) where treatment of waste will occur at the facility, a detailed description of each treatment method and unit, including the operating parameters that will be attained to achieve the intended treatment and the frequency, location, and method for monitoring the operating parameters;
(l) a discussion of compliance with the operating requirements that are identified in section 360.19 of this Part and Parts 361, 362, 363, and 365, and Subpart 374-2 of this Title;
(m) the location of all facility records related to the permit;
(n) a description of the operation of a residential drop-off area, if applicable, for non-commercial vehicles to unload waste and recyclables.
(o) a long term vibration monitoring program

Training plan. A training plan that identifies all of the facility's personnel by title and responsibilities and that describes the training program, both classroom and on-the job, that will be used to educate each individual on the procedures necessary to ensure compliance with the requirements applicable to the facility, including but not limited to the plans and procedures identified in this section and all authorizations, permits, and approvals that will be required for the facility; and that describes the training that will be provided and all procedures and equipment that will be used during emergencies, contingencies and standard operations.

Emergency Response Plan. An emergency response plan must include the following:

(a) a description of actions that facility personnel would take in response to emergencies including fires, explosions, natural disasters, and spills that occur at the facility. The plan must identify the personnel, equipment, and protocols to be utilized in response to each type of emergency. The plan must also include contact information for designated emergency contacts;
(b) a description of the facility's ability and proposed methods to respond to a natural or manmade disaster that, although it may not have a direct impact on the facility itself, may call for expanded or non-standard services to be provided by the facility (for example, longer operating hours) if department approval is granted for those services.

1.5 Permits and Approvals Required *(Brief discussion of the required permits, reviews and approvals; expected permits/involved agencies.)*

2.0 NATURAL ENVIRONMENTAL RESOURCES

2.1 Surface and Subsurface Soils including Agricultural Soils

2.1.1 Existing Conditions (*Using mapping, narrative and/or tables, describe surface soils found on-site based on the Soil Survey of Suffolk County, NY; discuss soil characteristics, particularly as they relate to agricultural use and note any pertinent soil limitations/constraints of each soil that may have an effect on the project; determine if the property is within any State or local agricultural districts; quantify coverage of each soil; discuss existing site drainage (if present) and general soil leaching capabilities; describe any known past or present soil contamination and the results of existing stockpile soil sampling conducted by NP&V in September of 2018; describe site topography.)*

2.1.2 Anticipated Impacts *(Discuss any impacts to agricultural soil resources; identify any soil limitations for proposed activities and how same will be addressed through site design; assess soil suitability from a drainage perspective; examine soil/materials storage/ stockpiling during operations; discuss any known or possible soil contamination from existing stockpiles/imported materials, and potential for dust, erosion, and sedimentation from future operations; indicate any slope issues, stormwater management methods, and identify impacts.)*

2.2.3 Proposed Mitigation

2.2 Water Resources

2.2.1 Existing Conditions *(Using mapping, narrative and/or tables and quantitative methods where possible, identify any onsite or adjacent surface waters or wetlands including the existing on-site man-made pond, current surface and groundwater quality based on any available data, quantity, water*

table elevation and groundwater flow direction; indicate any known localized groundwater contamination, and proximity to any public supply wells and groundwater contributing areas; discuss relationship of project site to the Central Suffolk Special Groundwater Protection Area and note the presence and importance of Long Island's Sole Source Aquifers.) Groundwater conditions shall be established by installing a minimum of one (1) up gradient groundwater monitoring well and two (2) down gradient monitoring well to establish groundwater direction flow. A minimum of two (2) groundwater samples shall be collected and analyzed for VOCs, 1,4 Dioxane, and the perflourinated compounds (PFOS-PFOA), Semi-VOCs, metals, PCBs/pesticides and parameters described in 6NYCRR Part 375.6.8. The results shall be used to establish a baseline of water quality and Unrestricted Use Soil Cleanup Objectives that may apply to the site. Prior to installation of groundwater monitoring wells, the sponsor's preparers of the DEIS shall submit to the Lead Agency for review the monitoring well engineering designs. The Lead Agency shall provide additional direction with respect to well depths, screen depths, and positioning of each well point. The DEIS preparers are encouraged to meet with the Lead Agency's representatives for guidance.

The Lead Agency requires the sponsor to collect, document and coordinate with all involved agencies, all available local water quality information from sources including but not limited to Suffolk County Health Department (SCWA), NYSDEC, Suffolk County Water Authority (SCWA) and the Riverhead Water District (RWD).

2.2.2 Anticipated Impacts *(Using qualitative methods, discuss potential for impact to groundwater resources and characteristics from construction and future site operations, both in terms of quantity and quality; identify any potential impacts on the Central Suffolk Special Groundwater Protection Area and Sole Source Aquifers; and assess consistency with other applicable local or regional groundwater protection policies; determine any impacts related to filling of the small man-made pond on the property; assess dust, erosion, and sedimentation impacts and controls and stormwater management needs including any SPDES General Permit for Stormwater and Stormwater Pollution Prevention Plan ("SWPPP") requirements if applicable.)*

2.2.3 Proposed Mitigation

2.3 Ecology

2.3.1 Existing Conditions *(Part of the site is cleared but some vegetation remains; describe existing vegetation and habitat conditions; discuss general flora and fauna based on habitat; check for any special ecological designations on the site or in the surrounding area using Environmental Resource Mapper and contact NY Natural Heritage Program for input; discuss previous clearing and*

vegetated buffer requirements and consider ecology related to existing on-site pond.)

2.3.2 Anticipated Impacts *(Discuss potential vegetation/wildlife impacts based on existing and proposed use; discuss the quality of remaining habitats and wildlife at the site including those associated with the small pond; identify impacts on any ecological resources associated with the small pond to be filled; assess previous and proposed clearing and standards and requirements for perimeter buffers and note any landscaping or screening that will be provided.)*

2.3.3 Proposed Mitigation

2.4 Air Quality

2.4.1 Existing Conditions *(Describe existing air quality conditions, NAAQS, regulatory parameters. Use data from existing air quality monitoring stations.)*

2.4.2 Anticipated Impacts *(Discuss possible impacts on air quality from dust raised by site preparation and construction activities, operation of pavement and concrete crushing and screening equipment, and heavy vehicle and equipment traffic; provide qualitative, and if necessary, quantitative air quality analysis.)*

2.4.3 Proposed Mitigation

3.0 HUMAN ENVIRONMENTAL RESOURCES

3.1 Land Use, Zoning and Plans

3.1.1 Existing Conditions *(Using mapping, narrative and/or tables, describe current land use and zoning of site and adjacent properties, and the pattern of land use and zoning in the vicinity; discuss existing zoning standards and permitted uses; discuss relevant sections of the Town Master Plan.)* The DEIS shall address the objectives and recommendations of the Town of Riverhead drafted Updated Solid Waste Management Plan.

3.1.2 Anticipated Impacts *(Discuss conformance of proposed project to future land use and zoning patterns of site and vicinity; and conformance to applicable zoning including but not limited to land use, lot size, width/frontage, setbacks, coverage, buffers; assess consistency with Town Comprehensive Plan and any other relevant adopted land use plans affecting the property.)* The DEIS shall address the objectives and recommendations of the Town of Riverhead drafted Updated Solid Waste Management Plan. The DEIS shall address the Town Code Article XXIII Industrial A Zoning Use District Section 301-114 Uses (6) Prohibit Uses: Garbage disposal dumps, landfills, incinerators, or transfer stations; soil or mineral removal, including sand mining, gravel and mining operations, asphalt and concrete plants and dumps. Although not specific to a C&D processing facility the Town Code and drafted Solid Waste Management Plan update must be used to establish the use as permitted and compatible with the intentions of these Town plans when written.

3.1.3 Proposed Mitigation

3.2 Community Character

3.2.1 Existing Conditions *(Using mapping, narrative, photographs and graphics, describe the visual community character of the site and area for observers along roadways and from other public vantage points; discuss existing ambient noise conditions based on input from a noise specialist; describe visual characteristics of area, existing buffers and screening, and any outdoor lighting.)*

3.2.2 Anticipated Impacts *(discuss future on-site operations; analyze and discuss any potential visual impacts and anticipated changes to community character; the impacts of outdoor lighting and construction and operational noise; evaluate the need for noise mitigation and perimeter buffers and visual screening.)*
Address Environmental Justice areas and any potential impacts on those communities. Asses anticipated impacts on the community generated by the proposed C&D facility with respect to quality of life on the residential units generated by locating a solid waste facility within this community compared with "Alternatives" listed in this Final Scope.

3.2.3 Proposed Mitigation

3.3 Community Services

3.3.1 Existing Conditions *(Briefly describe existing utilities present in project area including electric, natural gas, drainage, public vs. private water supply and sewage disposal; identify police, fire and ambulance districts serving area.)*.

3.3.2 Anticipated Impacts *(Describe changes in utility installations proposed as part of project and assess potential impacts from water demand including any necessary processing, dust controls or other pertinent water demands; any additional sewage discharge anticipated; indicate whether increased demand on police, fire, and ambulance services is expected.)*

3.3.3 Proposed Mitigation

3.4 Transportation

A Traffic Impact Study (TIS)

3.4.1 Existing Conditions *(Describe the existing roadway characteristics including sight distance and nearby intersections; existing traffic patterns; capacity analysis; site access and egress; related information as presented in traffic impact study prepared by others; existing road restrictions such as speed limits, maximum weight restrictions or access restrictions.)*

3.4.2 Anticipated Impacts *(Discuss anticipated traffic circulation and ability of roads to accommodate additional traffic; truck traffic routes to be used; evaluate adequacy of sight distance of the proposed accesses; assess any road restrictions; capacity analysis as presented in traffic impact study prepared by others; identify any traffic or transportation-related impacts.)*

3.4.3 Intersections for analyses shall include but not be limited to:
Middle Road/Deep Hole Road
Middle Road/Manor Road
Manor Road/River Road
Manor Road/Twomey Road
West Main Street/River Road

Edwards Avenue/Riley Avenue
Edwards Avenue/ NYS RT. 25
NYS RT. 25/Manor Road
Site Ingress/Egress (Middle Road and Manor Road)

3.4.4 Proposed Mitigation

4.0 OTHER REQUIRED SECTIONS

4.1 Cumulative Impacts *(Describe other pending projects in vicinity, determine potential for impacts due to implementation of proposed project in combination with others and discuss/analyze impacts.)*

4.2 Adverse Impacts That Cannot Be Avoided *(Provide brief list of those adverse environmental impacts described/discussed previously which are anticipated to occur, which cannot be completely mitigated.)*

4.3 Irreversible and Irretrievable Commitment of Resources *(Provide brief discussion of those natural and human resources which will be committed to and/or consumed by the proposed project.)*

4.4 Growth-Inducing Aspects *(Provide brief discussion of those aspects of the proposed project which will or may trigger or contribute to future growth in the area.)*

4.5 Effects on the Use and Conservation of Energy *(Provide a brief discussion on those aspects of the proposed project which would contribute to an increase in energy as well as potential options for conservation.)*

4.6 Construction Impacts *(Provide a brief description and analysis of potential impacts to the community associated with the construction process and/or construction activities, such as truck movements, equipment operations, import/export of soil, and C&D materials, noise, vibration days of week and hours of day of construction activities, etc.)*

5.0 ALTERNATIVES

5.1 No Action Alternative (*Alternative whereby the site remains in its current condition.)*

5.2 Alternative Use Under Zoning *(Evaluate alternative site use under current zoning.)*

5.2.1 Warehouse: The alternative is a permitted use in the Industrial A zoning use district. A "Self-Storage" type facility.

5.2.2 Agricultural Production: Nursery grower/greenhouse

6.0 REFERENCES

Figures *(The final maps to be included in the DEIS are contingent upon need and level of benefit for graphically depicting and analyzing certain issues or concerns identified by the DEIS. A preliminary list of maps is as follows: Location Map; Aerial Photograph; Soils Map; Topography Map; NYSDEC Wetlands Map; National Wetlands Inventory Map; Water Table Contour Map; FEMA Flood Zones Map; Site Habitat Map, Police & Fire Districts Map; Existing Land Use; Proposed Land Use; and Existing Zoning Map. Maps and figures may also be included in traffic, air quality and noise studies to present data and facilitate understanding.)*

Appendices *(The final Appendices to be included in the DEIS are contingent upon the overall benefit and need for supplementing discussions and analyses within the body of the DEIS. A preliminary list of appendices or important documents is as follows:*

- *Environmental Assessment Form (EAF) Parts 1, 2 and 3/Positive Declaration;*
- *Project Site Plans (Sheets 1 through 9);*
- *Community services letters and responses and any agency letters that may have been received, if provided by the Town;*
- *Noise report*
- *Air quality report;*
- *Traffic study;*
- *Others as determined necessary or relevant to support or supplement the text during preparation of the DEIS.*

Note: The Draft Scope will be made available by the Town at the Town Clerk's office and on the Town's website.)

9.0 EXTENT AND QUALITY OF INFORMATION NEEDED

The DEIS will be prepared in conformance with the Lead Agency/Town Planning Board's EAF Part 2, Part 3, and Positive Declaration; the approved Final Scope of work; and the standards and specifications outlined in SEQRA Section 617.9, "Preparation and Content of Environmental Impact Statements," after the Draft Scope has been revised (if necessary) and accepted by the Riverhead Planning Board. The DEIS is intended to provide relevant qualitative and quantitative information and analyses on identified subjects, including those required by SEQRA for all projects, to assist the Lead Agency and other involved agencies in the SEQRA decision-making process, including the Lead Agency's preparation of SEQRA Findings and the issuance of decisions on necessary approvals at the end of the SEQRA process. The DEIS will be thorough but concise and analytical but not encyclopedic. It will be accurate, well-documented, supported, referenced, and will consistent with the requisite standards and specifications of SEQRA. Technical information may be summarized in the body of the document and pertinent supplemental support materials will be attached in separate appendices as necessary.

Information sources for the DEIS may include, but are not limited to the following: drafted Solid Waste Management Plan update, contaminant parameters described in 6NYCRR Part 375.6.8, 6NYCRR parts 360 and 361, Town of Riverhead Town Code, Article LVI Site Plan Review Section 3011-303 General Requirements, Town Code Chapter 273 Solid Waste, Soil Survey of Suffolk County, NY; Natural Resources Conservation Service Web Soil Survey and database; September 26, 2018 "Site Characterization Report and Remediation Plan," prepared by NP&V for the site; LIDAR and USGS topographic mapping data; Official Zoning Map for the Town of Riverhead; Town of Riverhead Code; Suffolk County and/or USGS Groundwater Table Map with estimated depths to groundwater; other GIS generated maps; 1992 Long Island Comprehensive Groundwater Protection Area Plan; 6 NYCRR Part 617 (SEQR); SEQR Handbook; the completed SEQRA Environmental Assessment Forms Parts 1, 2 and 3/Determination of Significance, any EAF narratives that may have accompanied the EAFs, and the Town's adopted SEQRA Positive

Declaration for this project; NYSDEC Freshwater Wetlands and National Wetlands Inventory maps (preliminary review suggests that wetlands do not exist on or near the site); New York State Stormwater Management Plan; New York State Erosion and Sediment Control Plan; NYSDEC "Ecological Communities" publication ("Edinger," report); NYSDEC Critical Environmental Areas website (re: Central Suffolk Special Groundwater Protection Area); Long Island Index online database; Institute of Transportation Engineers ("ITE") publication (Trip Generation, 10th Edition); National Ambient Air Quality Standards; any input received from involved and interested agencies, Town service providers, and the general public during any public scoping and public outreach and participation activities; community service provider websites and correspondence; site and area conditions surveys; and other applicable resources as needed.

Impact prevention and mitigation techniques and strategies will be developed and refined as needed based on the specific results of the impact analyses but will include but not necessarily be limited to standard mitigations addressing dust, soil erosion and sedimentation; stormwater controls; noise and air quality impact mitigations; visual impact controls (screening, buffers, etc.); adherence to existing laws and codes; traffic mitigations as needed; any necessary adjustments to project plans; and others to be determined as environmental analyses are completed. "Mitigation" and "Future Actions" sections will be included in the DEIS. These sections and subsections will identify the impact avoidance and mitigation techniques that will be required for future site operations.

10.0 ISSUES DETERMINED TO BE NEITHER RELEVANT NOR ENVIRONMENTALLY SIGNIFICANT OR THAT HAS BEEN ADEQUATELY ADDRESSED

The DEIS will be prepared in accordance with the approved Final Scope, Section 617.9 of SEQRA, and input received from the Town, other involved and interested agencies, and the public as appropriate. The previously completed EAF Parts 1, 2 and 3, the Town's Positive Declaration, and Scoping documents (Draft and Final Scopes) are designed to identify the potential impacts from the action, environmental topics to be examined, and issues that are relevant and must be addressed, to eliminate unnecessary effort, expense, and evaluation of issues that are not significant or relevant. The DEIS will therefore strictly comply with the scope and content requirements of the Lead Agency's duly adopted Final Scope.

APPENDIX C
NYCRR PART 360-RELATED DOCUMENTS

APPENDIX C-1
ORDER ON CONSENT

NYSDEC
March 21, 2018

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

. X

In the Matter of the Violations of Article 27 of the
New York State Environmental Conservation Law and
Part 360 of Title 6 of the Official Compilation of Codes,
Rules and Regulations of the State of New York by:

ORDER ON CONSENT

Roadwork Ahead, Inc. and Luigi Stasi, individually
and as owner, operator, and CEO of Roadwork Ahead, Inc.,

R1-20171027-245

(Suffolk County) Respondents.

. X

WHEREAS:

1. The Department of Environmental Conservation of the State of New York ("DEC" or "Department") is responsible for the administration and enforcement of laws and regulations pertaining to the regulation of solid waste in the State of New York, including Article 27 of the Environmental Conservation Law of the State of New York ("ECL") and Part 360 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York ("6 NYCRR"); and

2. ECL Article 27 governs the collection, treatment, and disposal of refuse and other solid waste; and

3. 6 NYCRR Part 360 addresses Department regulations pertaining to the regulation of solid waste management facilities; and

4. 6 NYCRR §360-1.5(a) states "no person shall dispose of solid waste in this State except at: (1) a disposal facility exempt from the requirements of this Part; or (2) a disposal facility authorized to accept such waste for disposal pursuant to this Part or to a department-issued or court-issued order"; and

5. 6 NYCRR §360-1.7(a)(1) states "Except as provided for in subdivisions (b) and (c) of this section, section 360-1.13 of this Subpart or otherwise provided for in the applicable Subpart pertaining to the type of solid waste management facility in question, no person shall: (i) construct or operate a solid waste management facility, or any phase of it, except in accordance with a valid permit issued pursuant to this Part; or (ii) modify or expand any aspect of the approved construction or operation of a solid waste management facility except in accordance with the approval of the department"; and

6. ECL §71-2703(1) states "Any person who violates any of the provisions of, or who fails to perform any duty imposed by title 3 or 7 of article 27 of this chapter or any rule or regulation promulgated pursuant thereto, or any term or condition of any certificate or permit issued pursuant thereto, or any final determination or order of the commissioner made pursuant to this title shall be liable for a civil penalty not to exceed seven thousand five hundred dollars ($7,500) for each such violation and an additional penalty of not more

than one thousand five hundred dollars ($1,500) for each day during which such violation continues, to be assessed by the commissioner after an opportunity to be heard ..."; and

7. The Department has documented that during all times relevant to the instant enforcement action Respondent Roadwork Ahead, Inc. ("Roadwork") was and still is a domestic corporation existing under and by virtue of the laws of the State of New York and has its business premises at 1792 Middle Road, Calverton, County of Suffolk, New York 11933, consisting of a one-family-sized home, a large shed structure, with the remainder as open space with heavily wooded boundaries (the "Facility"); and

8. Respondent Luigi Stasi is the owner, operator, and CEO of Roadwork; and

9. Respondent Roadwork and Respondent Luigi Stasi will be collectively referred to herein as "Respondents; and

10. Respondents are individually and collectively a "person," as defined at 6 NYCRR §360-1.2(b)(117), which defines "person" as any individual, public or private corporation, political subdivision, government agency, authority, department or bureau of the State, municipality, industry, partnership, association, firm, trust, estate or any other legal entity whatsoever"; and

11. On or about July 7, 2017, Department Staff visited the Facility and observed unauthorized solid waste processing activity. The Department's Division of Law Enforcement ("DLE") issued criminal activity tickets to Roadwork; and

12. On or about July 11, 2017, Department staff inspected the Facility and documented solid waste violations; and

13. Department Staff documented that a cleared center area of the site was being used as a construction demolition and debris ("C&D") processing facility. There were piles of C&D, both processed and unprocessed, stored around the site. C&D processing equipment and vehicles were being stored and used on-site; and

14. Department staff documented that several areas of the site were graded with processed C&D material and that portions of the northern area of the site appear to have undergone sand removal activity and backfilling with C&D; and

15. The Department issued Notices of Violation ("NOVs"), dated July 25, 2017, to Respondents advising them that they were in violation of 6 NYCRR Part 360 for operating a solid waste management facility without a permit and unlawful disposal of solid waste; and

16. On or about September 3, 2017 and again on or about September 8, 2017 (the "September inspections"), Department Staff inspected the Facility and documented further violations of solid waste regulations.

First Violation

17. During the July 11, 2017 inspection and the September inspections, Department Staff documented that solid waste materials had been disposed of at the Facility without DEC authority; and

18. By causing or allowing the disposal of solid waste at a Facility with no Department authorization, Respondents are in violation of 6 NYCRR §360-1.5(a).

Second Violation

19. During the July 11, 2017 inspection and the September inspections, Department staff documented that solid waste had been received and processed at the the Facility without DEC authority; and

20. By causing or allowing the operation of a solid waste management facility without a permit, Respondents are in violation of 6 NYCRR §360-1.7(a)(1).

21. Respondents agree to take affirmative steps to prevent future violations of the ECL and associated rules and regulations.

NOW, having considered this matter and being duly advised, **IT IS ORDERED THAT:**

I. Cease and Desist. Respondents shall cease and desist from further violations of any provision of the ECL and implementing regulations, more particularly, ECL Article 27 and Part 360 of 6 NYCRR.

II. Compliance. Respondents shall immediately comply with all state and local solid waste-related laws, rules and regulations, including the attached Appendix A Compliance Schedule.

III Civil Penalty. That with respect to the aforesaid violations, there is hereby imposed upon Respondents a civil penalty in the sum of FIFTEEN THOUSAND DOLLARS ($15,000). The payable portion of the penalty is SEVEN THOUSAND FIVE HUNDRED DOLLARS ($7,500). The remaining SEVEN THOUSAND FIVE HUNDRED DOLLARS ($7,500) shall be suspended provided that Respondents strictly adhere to the terms and conditions outlined in this Order, including the Appendix A Compliance Schedule attached hereto and made a part hereof.

IV. Submissions. All reports and submissions required in this Order and Appendix A Compliance Schedule attached hereto shall be made to Region One, New York State Department of Environmental Conservation, 50 Circle Road, SUNY Stony Brook, Stony Brook, NY 11790-2356, Attention: Regional Materials Management Engineer, Division of Materials Management, with a copy addressed to the Regional Attorney at the same

address. All communications will be considered submitted on the date of deposit with the U.S. Postal Service or delivery to a recognized carrier service.

V. Reservation of Rights. The Department hereby reserves all its legal, administrative and equitable rights arising at common law or as granted to it pursuant to statue or regulation, including, but not limited to, any summary abatement powers of the Commissioner.

VI. Modification. In those instances in which Respondents desire that any of the provisions, terms or conditions of this Order be changed, he shall make written application, setting forth the grounds for the relief sought, to the Commissioner, c/o Regional Attorney, 50 Circle Road, SUNY Stony Brook, Stony Brook, NY 11790-2356. No change or modification to this Order shall become effective except as specifically set forth in writing and approved by the Commissioner or a duly authorized representative.

VII. Access. For the purpose of monitoring or determining compliance with this Order, employees and agents of the Department shall be provided access to the site to inspect and/or perform such tests as the Department may deem appropriate, to copy such records, or to perform any other lawful duty or responsibilities, without prior notice of such inspection.

VIII. Indemnification. Respondents shall indemnify and hold the Department, the State of New York, their representatives, employees and agents, harmless for all claims, suits, actions, damages and costs of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of the provisions presented hereof by the Respondents, their directors, officers, employees, servants, agents, successors or assigns.

IX. Future Compliance. Respondents shall conduct all solid waste-related activities in strict conformance with Federal and New York State laws and regulations. For the purpose of insuring compliance with this Order, duly authorized representatives of this Department shall be permitted access to the site during reasonable hours, in order to inspect and/or require such tests as may be deemed necessary to determine the status of Respondents' compliance herewith.

X. Binding Effect. The provisions, terms, and conditions of this Order, including the Appendix A Compliance Schedule, shall be deemed to bind Respondents and Respondents' officers, directors, agents, employees, successors and assigns and all persons, firms and corporations acting under or for him, including, but not limited to, those who may carry on any or all of the operations now being conducted by Respondents, whether at the present location or at any other in this State.

XI. Collection Costs / Fees. Respondents' failure to pay any penalty amounts due under the terms of this Order may result in a 22% surcharge in recovery costs and a potential tax refund offset by the Department of Taxation and Finance.

XII. Default of Payment. The penalty assessed in the Order constitutes a debt owed to the State of New York. Failure to pay the assessed penalty, or any part thereof, in accordance with the Order, may result in referral to the New York State Attorney General for collection of the entire amount owed (including the assessment of interest, and a charge to cover the cost of collecting the debt), or referral to the New York State Department of Taxation and Finance, which may offset any tax refund or other monies that may be owed to you by the State of New York by the penalty amount.

XIII. Effective Date. The effective date of this Order shall be the date upon which it is signed by the Commissioner or the Commissioner's Designee on behalf of the Department.

XIV. Unforeseen Events. Respondents shall not suffer any penalty under any of the provisions, terms and conditions hereof, or be subject to any proceedings or actions for any remedy or relief, if Respondents cannot comply with any requirements of the provisions hereof because of an Act of God, war, riot, or other catastrophe as to which negligence or willful misconduct on the part of Respondents was not foreseen or a proximate cause, provided, however, that Respondents shall immediately notify the Department in writing, when he obtains knowledge of any such condition and shall request an appropriate extension or modification of the provisions hereof; Respondents will adopt all reasonable measures to prevent or minimize any delay.

XV. Entire Agreement. This Order constitutes the entire agreement of the parties, and no provision of the agreement shall be deemed waived or otherwise modified without the written consent of the parties hereto or their lawfully designated successors.

Stony Brook, New York
Dated: March 21, 2018

BASIL SEGGOS
Commissioner of Department of
Environmental Conservation

By: _____
CARRIE MEEK GALLAGHER
Regional Director

TO: Steven E. Losquadro
Losquadro Law Firm
649 Route 25A
Suite 4
Rocky Point, NY 11778
Losquadrolaw@aol.com

CONSENT BY CORPORATION

Respondent, Roadwork Ahead, Inc. acknowledges the authority and jurisdiction of the Commissioner of the Department of Environmental Conservation of the State of New York to issue the foregoing Order, waive public hearing or other proceedings in the matter, accept the terms and conditions set forth in the Order and consent to the issuance thereof and agrees to be bound by the provisions, terms and conditions contained therein.

Roadwork Ahead, Inc.
Respondent

By: _____

Name: Luigi Stasi

Title: President

an individual duly authorized by the respondent corporation to sign on behalf of the corporation and whom may bind respondent corporation to the terms and conditions contained herein.

Date: 3/14/18

CORPORATE ACKNOWLEDGMENT

STATE OF NEW YORK)
) ss.:
COUNTY OF SUFFOLK)

On the 14 day of March in the year 2018, before me personally came Luigi Stasi, to me known, who, being duly sworn did depose and say that s/he resides at 218 Kirby Lane Syosset, that s/he is the President of Roadwork Ahead, In., the corporation described herein and which executed the above instrument; and that he signed his name thereto with full corporate authority so to do.

Sworn to before me this
14 day of March, 2018

_____
Notary Public

Barbara Ann Lewis
Notary Public, New York State
No. 01LE6009340
Commission Expires June 22, 2018

CONSENT BY INDIVIDUAL

Respondent acknowledges the authority and jurisdiction of the Commissioner of Environmental Conservation of the State of New York to issue the foregoing Order, waives public hearing or other proceedings in this matter, accepts the terms and conditions set forth in the Order and consents to the issuance thereof.

SIGNATURE _____
LUIGI STASI

FULL HOME ADDRESS: 2180 Kirby Lane
Syosset NY 11791

DATE: 3/14/18

ACKNOWLEDGMENT

STATE OF NEW YORK)
) ss.:
COUNTY OF SUFFOLK)

On the 14 day of March in the year 2018, before me, the undersigned, personally appeared LUIGI STASI, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his individual capacity.

Barbara Ann Lewis
Notary Public, New York State
No. 01LE6009340
Commission Expires June 22, 2018

_____
Notary Public, State of New York

Attachment A
Compliance Schedule
Roadwork Ahead, Inc. and Luigi Stasi
R1-20171027-245

I. Conformance With Regulations

Effective immediately,	Respondent(s) shall cease and desist from any and all future violations of the New York State Environmental Conservation Law and the rules and regulations enacted pursuant thereto. Respondent(s) shall abstain from operating any solid waste management facility or otherwise undertake any activity regulated under ECL §27-0707 and 6 NYCRR Part 360 without first having obtained the required authorization, as required by ECL §27-0707 and 6 NYCRR Part 360. In addition, Respondent(s) shall not conduct any exempt solid waste management activities at the site until the site is cleaned up to the satisfaction of the Department, and Respondent(s) are notified as such. References to Part 360 Series regulations in this Compliance Schedule refer to the regulations effective on November 4, 2017.

II. Site Cleanup

Within 15 days from the effective date of this Order,	Respondents shall provide a site cleanup plan that includes: a. A description of how the site will be cleaned up, including the waste placed as grade adjustment fill; b. A quantity estimate of each waste material by type, and whether stockpiled or placed in the ground; c. Procedures for classifying fill used for grade adjustment, such as test pits every 25 feet with additional test pits at the Department's discretion based on field observations; and d. A list of facilities to receive each type of waste on the site.
Upon Department approval of the site cleanup plan,	Site cleanup shall be conducted in accordance with the approved site cleanup plan and the following: a. Respondent(s) shall remove all processed and unprocessed construction and demolition debris (C&D) stockpiled at the site and placed as grade adjustment fill material **at a rate of no less than 300 cubic yards per week.** Grade adjustment fill material must be removed to native soil. Respondents may process C&D debris classified as recognizable uncontaminated concrete, asphalt, rock, brick, and soil (RUCARBS) for beneficial use in accordance with 6 NYCRR §§360.12 and 13 prior to removal. Any waste that is not classified as RUCARBS must be sent to a properly authorized facility, without any processing.

	b. All waste containing a soil matrix must be classified in accordance with 6 NYCRR §360.13, except the sampling rate must be no less than one sample per 1,000 cubic yards prior to beneficial use. Classification must include both chemical and physical characteristics by a qualified environmental professional (QEP). If any waste material is determined to be restricted-use or limited-use fill material, or other contaminated fill material, must be handled as such. c. No waste shall be sent to a facility or site which will beneficially used in accordance with 6 NYCRR §360.13 without first providing the Department the name and location of each receiving facility or beneficial use site, and copies of permits for facilities located outside of New York State. Respondent(s) must ensure if additional disposal facilities not previously provided will be used, Respondent(s) first receive Department approval to use such facilities. d. Respondent(s) shall maintain a log of the materials removed including location of disposal or beneficial use, tracking documents and disposal receipts. For each load removed, the log must include date, quantity of material, type of material, name of destination, address of destination. These shall be made available to Department staff immediately upon request.
Every Wednesday, from the commencement site cleanup until all of the required records are submitted to the satisfaction of the Department.	Respondents shall submit a summary of all loads removed. These summaries shall cover the previous calendar week (Sunday through Saturday) and include the following information: type of material, quantity of material, name of destination, address of destination.
The first business day of the month, until all disposal tickets and tracking documents are submitted.	Respondents shall submit disposal tickets and tracking documents for all solid waste materials disposed during the previous calendar month.
Within 120 days from the effective date of this Order,	Respondents must have all waste removed from the site, whether in a pile or placed as grade adjustment fill.

V. Submittals

Copies of all submittals required under this Order shall be provided to the following, as well as an electronic copy in pdf format to r1dmm@dec.ny.gov .

Regional Materials Management Engineer
New York State Department of Environmental Conservation
50 Circle Road
SUNY @ Stony Brook
Stony Brook, NY 11790

Regional Attorney
New York State Department of Environmental Conservation
50 Circle Road
SUNY @ Stony Brook
Stony Brook, NY 11790

Note: "Approvable" as used in this Order shall mean approvable by the DEC with minimal revisions. "Minimal revision" shall mean that Respondent incorporates all revisions required by the DEC and resubmits the plan for approval within fifteen (15) calendar days after receipt of the written comments by the DEC. "Full compliance" shall mean (1) Respondent has given full and complete responses to DEC's requests, if any, for additional information; and (2) Respondent has not violated any term of this Order or Compliance Schedule, Appendix A, attached thereto.

32-01-3 (8/90)-10f

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

RECEIPT

NUMBER 616664

Region Number 1 Date 3/23/18

Location Stony Brook

Received of Roadwork Ahead Inc.

In the amount of Seventy five hundred dollars $ 7500.-

For Civil penalty - R1-20171027-245

☐ Cash Department Representative Carole Gajewski

☑ Check Number 114782512 Title Secretary I

☐ Money Order

ORIGINAL

HOLD DOCUMENT UP TO THE LIGHT TO VIEW TRUE WATERMARK

OFFICIAL CHECK

HOLD DOCUMENT UP TO THE LIGHT TO VIEW TRUE WATERMARK

citibank

Citibank, N.A.

114782512

62-20
311

FC# 00281 FA# 006 $0.00 ONL PIC DATE 03/14/18

016-04 Ck. Ser.# 114782512

PAY ****SEVEN THOUSAND FIVE HUNDRED DOLLARS****

$7,500.00

TO THE ORDER OF ****NEW YORK STATE DEC****

Security Features Details on Back

NAME OF REMITTER ROADWORK AHEAD INC

ADDRESS

Citibank, N.A. One Penn's Way New Castle, DE 19720 R1-20171027-245

Drawer: Citibank, N.A.

BY AUTHORIZED SIGNATURE

MP

27

APPENDIX C-2
SITE CHARACTERIZATION REPORT & REMEDIATION PLAN

NPV, LLC
September 26, 2018

Site Characterization Report and Remediation Plan

Roadwork Ahead, Inc.

1792 Middle Road
Calverton, New York

NP&V Job # 17060
Order on Consent #
R1-20171027-245

September 26, 2018

Site Characterization Report
and Remediation Plan

Roadwork Ahead, Inc.

1792 Middle Road
Calverton, New York

THIS DOCUMENT CONTAINS 16 PAGES OF TEXT

COPIES AND CIRCULATION OF THIS REPORT ARE AS FOLLOWS:

Prepared For:

Mr. Nick Romero
Mr. James Wade
New York State Dept. of Environmental Conservation
50 Circle Road, SUNY at Stony Brook
Stony Brook, New York 11790

Long Island Home Builders Care Development Corp.
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Islandia, New York 11749

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NELSON POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING

Site Characterization Report
and Remediation Plan

Roadwork Ahead, Inc.

1792 Middle Road
Calverton, New York

CONTENTS

Site Characterization Report
and Remediation Plan

Roadwork Ahead, Inc.

1792 Middle Road
Calverton, New York

1.0 PURPOSE AND SUMMARY

The subject property is located at 1792 Middle Road, Calverton, New York and consists of a 6.68-acre industrially zoned parcel which currently contains a residence and residential accessory structure. The subject property is proposed to be converted to an asphalt and a concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and one and a half-story frame barn/garage to office and storage space.

Currently, several piles of soil, sand and comingled aggregate as well as grade adjustment fill are located throughout the property. These materials were imported to the site without the facility maintaining an appropriate NYCRR Part 360 permit for the acceptance of this material.

An Order on Consent was issued by the New York State Department of Environmental Conservation (NYSDEC) to Roadwork Ahead, Inc. (**Appendix A**). This Order was dated March 21, 2018 and required that the importation of material to the property cease and that site cleanup investigation activities be initiated to classify imported materials in accordance with NYCRR Section 360.13.

The purpose of this report is to summarize the protocols, methods, procedures and results of the investigation which was conducted in accordance with the NYSDEC approved work plan dated July 16, 2018 (**Appendix B**). Based on the results summarized in this report as well as consultation with the NYSDEC, a site remediation plan has been prepared to outline the actions required to address mitigation measures required as per the Order on Consent and has been included in **Section 5.0** of this document.

2.0 INVESTIGATION METHODS AND PROTOCOLS

Activities conducted as part of the site characterization included the collection of soil samples from each pile of soil and sand material present on the subject property as well as the excavation of test pits in the adjustment fill areas of the subject property. **Figure 1** provides a graphic illustration of the subject property, location of imported materials as well as the proposed location of each test pit.

A further description of proposed activities is outlined in the following sections of this work plan. All work will be completed in conformance with this work plan following NYSDEC approval as outlined herein, and/or modified through coordination with NYSDEC.

2.1 AREAS OF CHARACTERIZATION

A site walk through with James Wade of the NYSDEC revealed the presence of seven (7) distinct areas/piles which need to be sampled.

- Area #1 consists of a sand pile located in the western portion of the property, south of the barn. This pile is estimated to contain approximately 1,500 cubic yards (CY) of material.
- Area #2 consists of a large soil pile in the western end of the site which is located on the north side of the barn. This pile is estimated to contain approximately 4,000 CY of material.
- Area #3 consists of three (3) small piles of soil mixed with C&D materials located on the east side of the site access connected to Middle Road. These piles are estimated to contain 70 CY of material.
- Area #4 is located slightly to the northeast of the three (3) piles and consists of a pile of dirt. It is estimated that this pile contains approximately 750 CY of material.
- Area #5 is located east of the access roadway connected to Manor Road and consists of an elongated pile of dirt. It is estimated that this area contains approximately 1,500 CY of material.
- Area #6 consists of a triangular grade adjustment fill area located to the west of the site access roadway connected to Manor Road. This area is triangular in shape with dimensions of 75 feet by 60 feet by 95 feet.
- Area #7 consists of a rectangular grade adjustment fill area located east of the access roadway connected to Manor Road. This area is rectangular in shape with a dimension of 30 feet long by 20 feet wide.

In addition, there are two (2) piles of concrete aggregate that were not sampled but will be addressed as part of future mitigation activities either by removing them from the property or finding a beneficial use. Aside from the concrete and brick the aggregate, piles also contain wood and asphalt which will need to be sorted out if to be used for beneficial purposes.

2.2 SAMPLING AND ANALYSIS PROGRAM (SAP)

All soil sampling was conducted in accordance with the requirements and protocols established in NYCRR Section 360.13 of the Part 360 Solid Waste Management Facilities General Requirements as well as the provisions of the Order on Consent.

Soil/Sand Piles

All soil/sand material contained within the piles previously noted were classified in accordance with 6 NYCRR Section 360.13 except for the provision noted in the Order on Consent which requires that the sampling rate of each pile must be no less than one (1) sample per 1,000 CY of material. Classification included both chemical and physical characteristics by a certified laboratory and a qualified environmental professional, respectively. Each soil sample collected for analysis consisted of a composite sample collected from three (3) to five (5) discrete sample locations within each pile or section of pile. In addition, each discrete soil sample collected was collected at various depths within the piles that range from six (6) inches to two (2) feet. Based on this criteria, the number of samples collected from each pile were as follows:

- Area #1 - Based on a volume of 1,500 CY, two (2) composite samples were collected.
- Area #2 - Based on a volume of 4,000 CY, four (4) composite samples were collected.
- Area #3 - Based on a volume of 70 CY, one (1) composite sample were collected.
- Area #4 - Based on a volume of 750 CY, one (1) composite sample were collected.
- Area #5 - Based on a volume of 1,500 CY, two (2) composite samples were collected.

The location of the soil/sand piles sampled are provided in **Figure 1**.

Composite soil samples from each pile were inspected visually and by using a Photo Ionization Detector (PID) for evidence of contamination (i.e., odors, staining, separate phase hydrocarbons, etc.) and/or construction debris (i.e., concrete, wood, brick, asphalt, metal, etc.). Any evidence of contamination or contrasting fill materials was documented in the field for future reporting. Findings from each composite soil sample was photographed, recorded in a field notebook and reported within this Site Characterization report. Each composite soil sample was then collected, containerized and submitted for laboratory analysis.

Grade Adjustment Fill Areas

The grade adjustment fill areas were investigated through the excavation of test pits at a frequency of every 25 feet linear feet down to a depth at which native soils were encountered. As soils were removed from each test pit they were inspected visually and by using a PID for evidence of contamination (i.e., odors, staining, separate phase hydrocarbons, etc.) and/or construction debris (i.e., concrete, wood, brick, asphalt, metal, etc.). Any evidence of contamination or contrasting fill materials was documented in the field for future reporting. Following excavation each test pit was photographed, findings recorded in a field notebook and the results were reported within subsequent sections of this Site Characterization report. One (1) discrete soil sample was collected from the soils which were representative of fill material or if fill was not encountered the upper one (1) foot of soil, containerized and submitted for laboratory analysis. The number of test pits required for each grade adjustment fill area is as follows:

- Area #6 - Six (6) test pits were installed to native soils.
- Area #7 - Two (2) test pits were installed to native soils.

The location of test pits proposed to be excavated at the subject property are depicted on **Figure 1**.

2.3 SAMPLING METHODS

2.3.1 Hand Auger Soil Sampling

Hand auger samples were collected from each soil pile area from depth ranging from the upper six (6) to twenty-four (24) inches of soil which comprised each pile.

2.3.2 Backhoe Excavation

Each test pit was excavated using a mechanical backhoe and soils were removed until native materials were encountered.

2.3.3 Headspace Analysis and Procedure

Headspace analysis was performed on the soil samples acquired from each area in order to provide precursory data regarding aromatic hydrocarbon contamination. Results of the PID screening indicated that no hydrocarbon soil-vapor levels were obtained from any of the samples collected. Headspace analysis was performed utilizing a portable Photo Ionization Detection (PID) meter to measure what, if any, hydrocarbon concentrations were present in isolated portions of the secured samples. Headspace analysis was conducted by partially filling a sealable plastic bag with sample aliquot and sealing the top, thereby creating a void. This void is referred to as the sample headspace.

To facilitate the detection of any hydrocarbons contained within the sample headspace, the container was agitated for a period of thirty (30) seconds. The probe of the vapor analyzer was then injected into the headspace to measure the hydrocarbon concentrations present. A Mini Rae Model 2000 Photo Ionization Detection meter was the organic vapor analyzer selected for the headspace analysis. A PID utilizes the principle of photo ionization for detection and measurement of hydrocarbon compounds. A PID does not respond to all compounds similarly; rather, each compound has its own response factor relative to its calibration. For this investigation, the PID was calibrated to isobutylene. Hydrocarbon relative response factors for a PID calibrated to isobutylene are published by the manufacturer.

2.4 LABORATORY SAMPLE LOCATION AND FREQUENCY

The soil samples collected from the site were containerized and labeled for identification purposes. The labels were coded to correspond to the location from which the samples were secured. **Table 1** provides an index of how the samples were coded during labeling. **Figure 1** provides a map of the sample identifications and locations.

TABLE 1

SAMPLE IDENTIFICATION

SAMPLE LOCATION	SAMPLE ID CODE
Composite sample collected from northern half of Area 1	Area 1 North
Composite sample collected from southern half of Area 1	Area 1 South
Composite sample collected from northeastern quadrant of Area 2	Area 2 NE
Composite sample collected from northwestern quadrant of Area 2	Areas 2 NW
Composite sample collected from southwestern quadrant of Area 2	Area 2 SW
Composite sample collected from southeastern quadrant of Area 2	Area 2 SE
Composite sample collected from Area 3	Area 3
Composite sample collected from Area 4	Area 4
Composite sample collected from northern half of Area 5	Area 5 North
Composite sample collected from southern half of Area 5	Area 5 South
Sample collected from Test Pit 1 in Area 6	Area 6 TP-1
Sample collected from Test Pit 2 in Area 6	Area 6 TP-2
Sample collected from Test Pit 3 in Area 6	Area 6 TP-3
Sample collected from Test Pit 4 in Area 6	Area 6 TP-4
Sample collected from Test Pit 5 in Area 6	Area 6 TP-5
Sample collected from Test Pit 6 in Area 6	Area 6 TP-6
Sample collected from Test Pit 1 in Area 7	Area 7 TP-1
Sample collected from Test Pit 2 in Area 7	Area 7 TP-2

2.5 ANALYTICAL TEST METHODS

Collected samples were analyzed for semi-volatile organic compounds, metals, pesticides, PCBs using NYSDEC Part 375 methodology as well as asbestos by an NYSDOH ELAP-certified laboratory.

2.6 PROTOCOLS

The protocols used to direct the samples were based upon the following documents: the New York State Department of Environmental Conservation (NYSDEC) Environmental Remediation Program Part 375 and NYSDEC, Sampling Guidelines and Protocols, Technology Background and Quality Control/Quality Assurance for NYSDEC Spill Response Program.

3.0 SOILS CLASSIFICATION AND LABORATORY ANALYSIS

3.1 SOIL CLASSIFICATION

Soils from each area were inspected and classified to detail their physical characteristics. A summary of the classification results for each area are provided below.

Area 1
Area 1 materials were comprised of fine white sand, trace gravel.

Area 2
Area 2 materials were comprised of dark brown sandy silt, trace gravel with organic material.

Area 3
Area 3 materials were comprised of brown fine sand intermixed with gravel, brick and concrete.

Area 4
Area 4 materials were comprised of brown silty fine sands intermixed with gravel, rock, brick, and concrete.

Area 5
Area 4 materials were comprised of brown silty fine sands intermixed with gravel, rock, brick, and concrete.

Area 6, TP-1
0 to 2 feet dark brown to black silty sand with rock and wood present (fill).
2 to 4 feet dark brown silt with grass clippings (fill).
4 to 8 feet reddish brown to pale brown fine sand, trace gravel (native soils).

Area 6, TP-2
0 to 2 feet dark brown to black silty sand and gravel with organics consisting of roots and branches present (fill).
2 to 4 feet reddish brown to pale brown fine sand, trace gravel (native soils).

Area 6, TP-3
0 to 1 foot dark brown to black silty sand and gravel with organics consisting of grass clippings present (fill).
1 to 2 feet pale brown silt, trace gravel (native soils).
2 to 4 feet reddish brown to pale brown fine sand, trace gravel (native soils).

Area 6, TP-4
0 to 2 feet reddish brown silty fine sand, trace gravel (native soils).
2 to 4 feet pale brown fine sand, trace gravel (native soils).

Area 6, TP-5
0 to 0.5 foot dark brown silty sand, trace gravel (native soils).
0.5 to 1.5 feet reddish brown fine sand and gravel (native soils).
1.5 to 3.0 feet pale brown fine sand, trace gravel (native soils).

Area 6, TP-6
0 to 2 feet dark brown silty sand and gravel with brick and asphalt present (fill).
2 to 4 feet pale brown fine sand, trace gravel (native soils).

Area 7, TP-1
0 to 1 foot black silty sand, trace gravel (fill).
1 to 4 feet pale brown fine sand, trace gravel (native soils).

Area 7, TP-2
0 to 1 foot black silty sand, trace gravel (fill).
1 to 4 feet pale brown fine sand, trace gravel (native soils).

Photographs of each area, test pits and materials collected for laboratory analysis are provided in **Appendix C.**

3.2 PID RESULTS

All of the samples collected for laboratory analysis were scanned with a PID for olfactory evidence of aromatic volatile organic vapors. Results of the PID scanning did record any readings from any of the samples collected.

3.3 ANALYTICAL RESULTS

Soil/Sand Pile Composite Sample Results
The laboratory analysis performed on the samples collected from the soil piles identified as Areas 1 through 5 did not reveal the presence of any PCB compounds or asbestos materials in any of the composite samples collected. A review of the analytical results detected the presence of several volatile, and semi-volatile organic compounds as well as metals in all or some of the samples collected but none were found to exceed their respective Part 375 soil cleanup objectives for either the protection of groundwater or residential use. The laboratory analysis sheets (NYS ASPA) as prepared by Long Island Analytical Laboratories are presented in **Appendix D** of this document.

Grade Adjustment Fill Area Test Pit Sample Results
The laboratory analysis performed on the samples collected from the test pits installed in Areas 1 and 2 did not reveal the presence of any PCB compounds or asbestos materials in any of the composite samples collected. A review of the analytical results detected the presence of several volatile, and semi-volatile organic compounds as well as metals in all or some of the samples collected but none were found to exceed their respective Part 375 soil cleanup objectives for either the protection of groundwater or residential use. The laboratory analysis sheets (NYS ASPA) as prepared by Long Island Analytical Laboratories are presented in **Appendix D** of this document.

TABLE 1
COMPARISON ANALYSIS FOR SAMPLES COLLECTED FROM SOIL PILES

Constituents	Area 1 North	Area 1 South	Area 2 NE	Area 2 NW	Area 2 SW	Area 2 SE	Area 3	Area 4	Area 5 North	Area 5 South	6 NYCRR Part 375 Protection of Groundwater	6 NYCRR Part 375 Residential
Semi-Volatile Organics	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**
Acenaphthene	ND	ND	ND	ND	177	ND	ND	ND	ND	ND	98,000	100,000
Anthracene	ND	ND	ND	ND	226	ND	ND	ND	ND	ND	1,000,000	100,000
Benzo(a)anthracene	ND	ND	ND	436	446	ND	ND	227	442	186	1,000	1,000
Benzo(a)pyrene	ND	ND	ND	385	383	ND	ND	356	559	301	22,000	1,000
Benzo(b)fluoranthene	ND	ND	ND	567	508	ND	ND	466	780	413	1,700	1,000
Benzo(g,h,i)perylene	ND	ND	ND	240	231	ND	ND	315	430	280	1,000,000	100,000
Benzo(k)fluoranthene	ND	ND	ND	195	206	ND	ND	179	259	ND	1,700	1,000
Chrysene	ND	ND	ND	533	477	ND	ND	308	580	268	1,000	1,000
Fluoranthene	ND	ND	247	1,570	1,180	277	ND	539	1,090	378	1,000,000	100,000
Indeno(1,2,3-cd))pyrene	ND	ND	ND	ND	ND	ND	ND	251	355	213	8,200	500
Phenanthrene	ND	ND	ND	1,070	949	ND	ND	283	678	ND	1,000,000	100,000
Pyrene	ND	ND	202	1,180	955	235	ND	472	916	341	1,000,000	100,000
Pesticides	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**
4,4-DDD	ND	ND	13.5	11.4	13.1	ND	ND	ND	ND	ND	14,000	2,600
4,4-DDE	ND	ND	40.9	37	41.9	40.2	ND	ND	ND	ND	17,000	1,800
4,4-DDT	ND	ND	50.2	53.8	69.8	35	ND	ND	ND	ND	136,000	1,700
cis-Chlordane	ND	ND	12.4	ND	ND	ND	ND	ND	ND	ND	2,900	910
PCBs	**Not Detected**											
Metals	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Arsenic	ND	ND	3.98	3.42	3.24	5.05	4.31	4.75	3.47	5.04	16	16
Barium	2.86	2.34	17.4	14.8	16.7	21.5	ND	25.6	36.5	27.5	820	350
Trivalent Chromium	2.79	ND	7.99	7.34	7.08	10.4	3.09	10.1	12.4	10.1	36	NS
Hexavalent Chromium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	22
Copper	ND	ND	7.74	6.67	8.77	7.67	3.06	16.4	16.5	15	1,720	270
Lead	ND	3.16	17.7	15.1	16.7	18.9	2.72	29	21.6	27.6	450	400
Manganese	20.4	20	67.3	49.3	57.5	95.3	36.9	121	148	217	2,000	2,000
Nickel	ND	ND	4.20	2.98	3.36	7.35	ND	6.4	7.54	7.14	130	140
Zinc	1.74	6.17	27.8	30.8	30.8	27.7	9.63	42.9	40.4	56.6	2,480	2,200
Mercury	ND	ND	0.06	0.04	0.03	0.07	ND	0.08	0.03	0.05	0.73	0.81
Asbestos	**Not Detected**											

Notes: ND - Not Detected; NS - No soil cleanup objective established for compound; mg/kg - milligrams per kilogram; ug/kg - microgram per kilogram
Bold and highlighted indicates the constituent exceeds the Part 375 soil cleanup objective for residential development and/or the protection of groundwater

TABLE 2
COMPARISON ANALYSIS FOR SAMPLES COLLECTED FROM TEST PITS

Constituents	Area 6 TP-1	Area 6 TP-2	Area 6 TP-3	Area 6 TP-4	Area 6 TP-5	Area 6 TP-6	Area 7 TP-1	Area 7 TP-2	6 NYCRR Part 375 Protection of Groundwater	6 NYCRR Part 375 Residential
Semi-Volatile Organics	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**
¾-Methylphenol	239	189	ND	ND	ND	ND	ND	ND	NS	NS
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	98,000	100,000
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	1,000,000	100,000
Benzo(a)anthracene	237	266	163	ND	ND	ND	208	230	1,000	1,000
Benzo(a)pyrene	292	324	198	ND	162	ND	267	344	22,000	1,000
Benzo(b)flouranthene	423	454	ND	ND	ND	ND	401	437	1,700	1,000
Benzo(g,h,i)perylene	204	230	ND	ND	ND	ND	226	294	1,000,000	100,000
Benzo(k)flouranthene	ND	169	ND	ND	ND	ND	ND	176	1,700	1,000
Chrysene	312	349	216	ND	ND	ND	288	315	1,000	1,000
Flouranthene	620	655	406	ND	207	ND	439	481	1,000,000	100,000
Indeno(1,2,3-cd))pyrene	189	203	ND	ND	ND	ND	221	247	8,200	500
Phenanthrene	263	237	173	ND	ND	ND	ND	199	1,000,000	100,000
Pyrene	505	543	332	ND	182	ND	363	476	1,000,000	100,000
Pesticides	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**
4,4-DDD	10.1	ND	33.9	9.83	ND	12.2	ND	ND	14,000	2,600
4,4-DDE	22	23.7	86.9	92.2	28.9	31.4	ND	ND	17,000	1,800
4,4-DDT	18	ND	155	96.8	26.8	ND	ND	ND	136,000	1,700
cis-Chlordane	28.7	ND	ND	ND	ND	ND	ND	ND	2,900	910
Dieldrin	ND	ND	ND	26.2	ND	ND	ND	ND	100	39
PCBs	**Not Detected**									
Metals	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Arsenic	4.93	5.15	4.34	6.51	4.65	8.37	11.8	4.54	16	16
Barium	20	19	15.6	13.4	22.1	35.9	24	21.5	820	350
Trivalent Chromium	17.4	12.5	6.66	32.1	9.67	19.6	9.66	8.68	36	NS
Hexavalent Chromium	ND	ND	ND	ND	ND	ND	ND	ND	19	22
Copper	11.4	9.73	8.51	8.69	8.89	13.6	27.6	12.9	1,720	270
Lead	23.2	18.6	20.9	5.28	17.9	33	24.2	19.5	450	400
Manganese	69.6	75.9	61.8	47.1	93.2	177	124	122	2,000	2,000
Nickel	4.57	5.04	3.44	4.58	5.4	9.66	9.02	7.15	130	140
Zinc	34.5	36.7	27	16.1	28.3	33.6	35.2	32.3	2,480	2,200
Mercury	0.06	0.04	0.03	ND	0.03	0.17	0.06	0.04	0.73	0.81
Asbestos	**Not Detected**									

Notes: ND - Not Detected; NS - No soil cleanup objective established for compound; mg/kg - milligrams per kilogram; ug/kg - microgram per kilogram
Bold and highlighted indicates the constituent exceeds the Part 375 soil cleanup objective for residential development and/or the protection of groundwater

4.0 QUALITY ASSURANCE/QUALITY CONTROL PLAN (QA/QC)

All sampling will be conducted in accordance with USEPA accepted sampling procedures for hazardous waste streams (Municipal Research Laboratory, 1980, Sampling and Sampling Procedures for Hazardous Material Waste Streams, USEPA, Cincinnati, Ohio EPA- 600\280-018) and ASTM Material Sampling Procedures. All samples will be collected by or under the auspices of USEPA trained personnel having completed the course Sampling of Hazardous Materials, offered by the Office of Emergency and Remedial Response.

Separate QA/QC measures will be implemented for each of the instruments used in the Sampling and Analysis Program. Sampling instruments will include a mechanical backhoe, a stainless steel hand auger and sample vessels.

Prior to arrival on the site and between sample locations, the probes sections will be decontaminated by washing with a detergent (alconox/liquinox) and potable water solution with distilled water rinse. The PID will be calibrated prior to sampling using a span gas of known concentration. All sample vessels will be "level A" certified decontaminated containers. Samples will be placed into vessels consistent with the analytical parameters. After acquisition, samples will be preserved in the field. All containerized samples will be refrigerated to 4^{o} C during transport and delivered to the analytical laboratory within eight (8) hours of collection.

A sample represents physical evidence, therefore, an essential part of liability reduction is the proper control of gathered evidence. To establish proper control, the following sample identification and chain-of-custody procedures will be followed.

Sample Identification

Sample identification will be executed by use of a sample tag, log book and manifest. Documentation provides the following:

1. Project Code
2. Sample Laboratory Number
3. Sample Preservation
4. Instrument Used for Source Soil Grabs
5. Composite Medium Used for Source Soil Grabs
6. Date Sample was Secured from Source Soil
7. Time Sample was Secured from Source Soil
8. Person Who Secured Sample from Source Soil

Chain-of-Custody Procedures

Due to the evidential nature of samples, possession will be traceable from the time the samples were collected until they were received by the testing laboratory. A sample will be considered under custody if:

It was in a person's possession, or
It was in a person's view, after being in possession, or
It was in a person's possession and they were to lock it up, or
It is in a designated secure area.

When transferring custody, the individuals relinquishing and receiving will sign, dated and note the time on the Chain-of- Custody Form.

Laboratory Custody Procedures

A designated sample custodian will accept custody of the shipped samples and verify that the information on the sample tags match that on the Chain-of-Custody records. Pertinent information as to shipment, pick-up, courier, etc. will be entered in the "remarks" section. The custodian will then enter the sample tag data into a bound logbook which will be arranged by project code and station number.

The laboratory custodian will use a sample tag number or assigned a unique laboratory number to each sample tag and assure that all samples will be transferred to the proper analyst or stored in the appropriate source area.

The custodian will distribute samples to the appropriate analysts. Laboratory personnel will be responsible for the care and custody of samples from the time they are received until the sample is exhausted or returned to the custodian.

All identifying data sheets and laboratory records will be retained as part of the permanent site record. Samples received by the laboratory will be retained until after analysis and quality assurance checks are completed.

5.0 SITE REMEDIATION AND CLEANUP PLAN

This section represents the site remediation and cleanup plan which reflects the remediation and compliance schedule requirements outlined in the Order On Consent issued to Roadwork Ahead, Inc. on March 21, 2018.

The general contents of the remediation plan includes:

- Summary of results for each area investigated and required action as directed by the NYSDEC in their correspondence dated September 20, 2018 (**Appendix E**).
- A description of the methods to be used to cleanup the subject property.
- An estimate of the quantity of the material to be removed from the subject property.
- Facility selection to receive each type of waste.
- Compliance schedule and rates of material removal.
- Documentation requirements.

5.1 INDIVIDUAL AREA RESULTS AND ACTION REQUIREMENTS

A summary of the findings for each area investigated and required actions are provided below.

5.1.1 Investigated Areas, Results and Required Actions

Seven (7) areas were delineated as part of the site characterization investigation and characterized through visual inspection, field screening and laboratory analysis. The findings and required actions are presented below.

Area #1 - Sand Stockpile
Approximately 1,500 CY - Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards. As directed by the NYSDEC, the material in Area #1 may be beneficially re-used as general fill, or disposed of at an authorized Solid Waste Management Facility (SWMF)

Area #2 - Soil Stockpile
Approximately 4,000 CY - Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). As directed by the NYSDEC, the soil stockpiled in Area #2 may be beneficially re-used as general fill, or disposed of at an authorized SWMF.

Area #3 - Soil Comingled with C&D debris
Three (3) piles approximately 70 CY total - Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards; however, the soil is

comingled with C&D debris. As directed by the NYSDEC, the material in Area #3 must be processed on-site prior to beneficial re-use or disposal at an authorized SWMF.

Area #4 - Soil Stockpile

Approximately 750 CY - Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). As directed by the NYSDEC, the soil stockpiled in Area #4 may be beneficially re-used as general fill, or disposed of at an authorized SWMF.

Area #5 - Soil Stockpile

Approximately 1,500 CY - Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). As directed by the NYSDEC, the soil stockpiled in Area #5 may be beneficially re-used as general fill, or disposed of at an authorized SWMF.

Areas #6 and #7

Access Roadway - Test pits were dug to determine the extent and content of the material used in construction of the access road. It was determined that approximately 1 to 2 feet of material consisting of soil comingled with crushed concrete, asphalt, rock, and brick was used in these roadways. Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards. As directed by the NYSDEC, the material used in the stabilized access road areas may remain in-place.

5.1.2 Additional Areas of Concern

In addition to the areas investigated as part of the site characterization, four (4) additional areas were noted by the NYSDEC which did not require characterization due to their composition but do require further action. The actions required for each of these areas are summarized below.

Area of Materials Stockpiled Along the Fence North of Swimming Pool

Approximately 50 CY of material within two (2) piles of C&D debris consisting of concrete, asphalt, rock, brick, soil, and tree debris. As directed by the NYSDEC, this material may be processed on-site prior to beneficial re-use or disposal at an authorized SWMF.

Concrete Stockpiles Located Between Areas #4 and #5

Approximately 800 CY of unprocessed concrete mixed with soil. As directed by the NYSDEC, this material may be processed on-site prior to beneficial re-use or disposal at an authorized SWMF.

Stockpiles of Comingled Debris Located Near Main Entrance
Approximately 750 CY of comingled wood debris and miscellaneous C&D debris consisting of ceramic tile, plastics, foams, and metals. These materials do not meet any pre-determined beneficial uses as outlined in part 360.12 or part 360.13(f), and as a result are defined as C&D debris. As directed by the NYSDEC, this material must be disposed of at an authorized SWMF.

Asphalt Stockpile Located Near Center of the Property
Approximately 120 CY of unprocessed asphalt and millings must be disposed of at a properly authorized SWMF.

5.1.3 Cleanup Methods and Procedures

Comingled materials present on-site require processing prior to beneficial re-use. These materials will be mechanically sorted on-site through a grate sifter to separate large C&D materials from soil material. Separated materials will be stockpiled separately and sorted soils may be beneficially re-used as general fill. Concrete, brick and rock may be comingled together for beneficial re-use as aggregate. Piles of materials consisting of comingled concrete, wood, ceramic tile, plastics, foams, and metals as well as asphalt millings will be removed from the property and disposed of at a properly authorized SWMF.

All materials removed from the property for disposal at a properly authorized SWMF or for beneficial re-use will be loaded onto trucks using an excavator or front end loader. All trucks transporting material will be properly licensed and permitted in accordance with applicable Local, State and Federal regulations for the specific materials transported.

5.1.4 Material Quantities

Materials present on the subject property have been assessed and unacceptable materials are required to be removed from the property. Materials which have been deemed acceptable may be removed as well but also may be beneficially re-used as general fill. In addition, some materials may require further processing prior to beneficial re-use. Finally, materials which have been imported to the site for use as adjustment fill may remain in place to stabilize the site access.

A summary of the quantities of materials which must be removed and processed or beneficially re-used or remain in place is provided below.

Beneficial Re-Use
Approximately 7,750 CY of material may be beneficially re-used as general fill or disposed of at an authorized SWMF.

Processed Prior to beneficial Re-Use
Approximately 920 CY of material must be processed prior to beneficial re-use.

Remain In Place
Approximately 200 CY of grade adjustment fill which has been subject to this investigation may remain in place to stabilize the on-site access roadway.

Remove from the Property
Approximately 870 CY of material consisting of comingled concrete, wood, ceramic tile, plastics, foams, and metals as well as asphalt millings will be removed from the property and disposed of at a properly authorized SWMF.

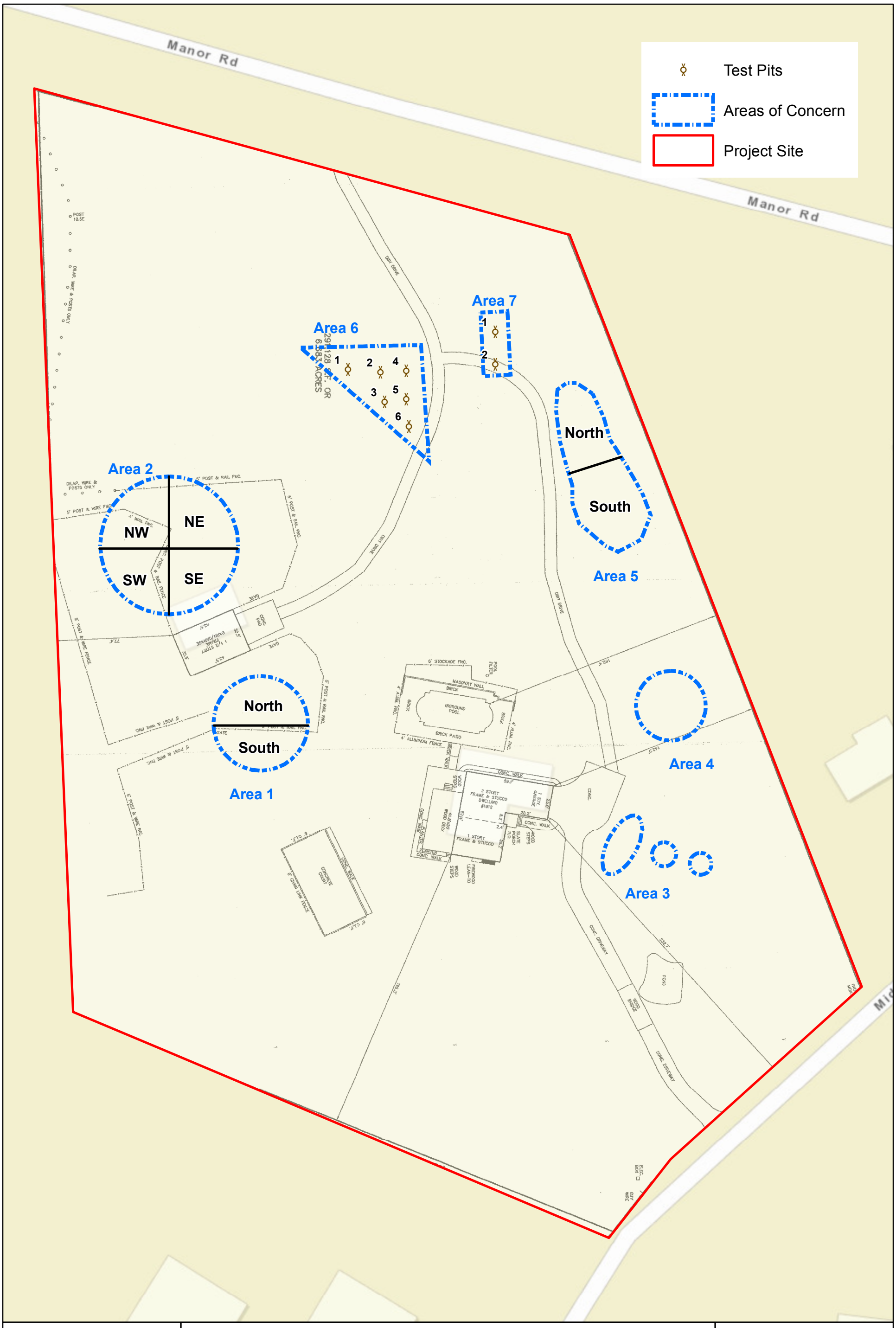
5.1.5 Disposal Facility Selection

As of this report, no facility has been selected for the disposal of waste materials which are required to be transported off-site from the subject property. No waste will be sent to a facility or site for disposal or beneficial re-use in accordance with 6 NYCRR Section 360.13 without first providing the NYSDEC the name and location of each receiving facility or beneficial use site as well as copies of permits for facilities located outside of New York State. No material will be removed until official NYSDEC approval is provided.

5.1.6 Compliance Schedule and Documentation Requirements

All materials requiring removal from the property will be removed at a rate of no less than 300 CY per week. A log will be maintained of materials removed including location of disposal or beneficial use, tracking documents and disposal receipts. From the commencement of site cleanup, a summary of all loads removed will be provided every Wednesday until all of the records are submitted to the satisfaction of the NYSDEC. In addition, all disposal tickets and tracking documentation for all solid waste material disposed during the previous calendar month will be provided on the first business day of the month until all disposal tickets and tracking documents are submitted to the NYSDEC. Finally, all material requiring removal from the subject property will be transported off-site to an appropriate SWMF within 120 days of the NYSDEC approval of this cleanup plan.

FIGURES



NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING

SAMPLE LOCATION MAP

Source: ESRI WMS; Nelson & Pope drawing, 2017

Scale: 1 inch = 60 feet

N

1792 Middle Road
Calverton

Site Characterization Report

APPENDICES

APPENDIX A

NYSDEC ORDER ON CONSENT #R1-20171027-245 March 12, 2018

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

. X

In the Matter of the Violations of Article 27 of the
New York State Environmental Conservation Law and
Part 360 of Title 6 of the Official Compilation of Codes,
Rules and Regulations of the State of New York by:

ORDER ON CONSENT

Roadwork Ahead, Inc. and Luigi Stasi, individually
and as owner, operator, and CEO of Roadwork Ahead, Inc.,

R1-20171027-245

(Suffolk County) Respondents.

. X

WHEREAS:

1. The Department of Environmental Conservation of the State of New York ("DEC" or "Department") is responsible for the administration and enforcement of laws and regulations pertaining to the regulation of solid waste in the State of New York, including Article 27 of the Environmental Conservation Law of the State of New York ("ECL") and Part 360 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York ("6 NYCRR"); and

2. ECL Article 27 governs the collection, treatment, and disposal of refuse and other solid waste; and

3. 6 NYCRR Part 360 addresses Department regulations pertaining to the regulation of solid waste management facilities; and

4. 6 NYCRR §360-1.5(a) states "no person shall dispose of solid waste in this State except at: (1) a disposal facility exempt from the requirements of this Part; or (2) a disposal facility authorized to accept such waste for disposal pursuant to this Part or to a department-issued or court-issued order"; and

5. 6 NYCRR §360-1.7(a)(1) states "Except as provided for in subdivisions (b) and (c) of this section, section 360-1.13 of this Subpart or otherwise provided for in the applicable Subpart pertaining to the type of solid waste management facility in question, no person shall: (i) construct or operate a solid waste management facility, or any phase of it, except in accordance with a valid permit issued pursuant to this Part; or (ii) modify or expand any aspect of the approved construction or operation of a solid waste management facility except in accordance with the approval of the department"; and

6. ECL §71-2703(1) states "Any person who violates any of the provisions of, or who fails to perform any duty imposed by title 3 or 7 of article 27 of this chapter or any rule or regulation promulgated pursuant thereto, or any term or condition of any certificate or permit issued pursuant thereto, or any final determination or order of the commissioner made pursuant to this title shall be liable for a civil penalty not to exceed seven thousand five hundred dollars ($7,500) for each such violation and an additional penalty of not more

than one thousand five hundred dollars ($1,500) for each day during which such violation continues, to be assessed by the commissioner after an opportunity to be heard ..."; and

7. The Department has documented that during all times relevant to the instant enforcement action Respondent Roadwork Ahead, Inc. ("Roadwork") was and still is a domestic corporation existing under and by virtue of the laws of the State of New York and has its business premises at 1792 Middle Road, Calverton, County of Suffolk, New York 11933, consisting of a one-family-sized home, a large shed structure, with the remainder as open space with heavily wooded boundaries (the "Facility"); and

8. Respondent Luigi Stasi is the owner, operator, and CEO of Roadwork; and

9. Respondent Roadwork and Respondent Luigi Stasi will be collectively referred to herein as "Respondents; and

10. Respondents are individually and collectively a "person," as defined at 6 NYCRR §360-1.2(b)(117), which defines "person" as any individual, public or private corporation, political subdivision, government agency, authority, department or bureau of the State, municipality, industry, partnership, association, firm, trust, estate or any other legal entity whatsoever"; and

11. On or about July 7, 2017, Department Staff visited the Facility and observed unauthorized solid waste processing activity. The Department's Division of Law Enforcement ("DLE") issued criminal activity tickets to Roadwork; and

12. On or about July 11, 2017, Department staff inspected the Facility and documented solid waste violations; and

13. Department Staff documented that a cleared center area of the site was being used as a construction demolition and debris ("C&D") processing facility. There were piles of C&D, both processed and unprocessed, stored around the site. C&D processing equipment and vehicles were being stored and used on-site; and

14. Department staff documented that several areas of the site were graded with processed C&D material and that portions of the northern area of the site appear to have undergone sand removal activity and backfilling with C&D; and

15. The Department issued Notices of Violation ("NOVs"), dated July 25, 2017, to Respondents advising them that they were in violation of 6 NYCRR Part 360 for operating a solid waste management facility without a permit and unlawful disposal of solid waste; and

16. On or about September 3, 2017 and again on or about September 8, 2017 (the "September inspections"), Department Staff inspected the Facility and documented further violations of solid waste regulations.

First Violation

17. During the July 11, 2017 inspection and the September inspections, Department Staff documented that solid waste materials had been disposed of at the Facility without DEC authority; and

18. By causing or allowing the disposal of solid waste at a Facility with no Department authorization, Respondents are in violation of 6 NYCRR §360-1.5(a).

Second Violation

19. During the July 11, 2017 inspection and the September inspections, Department staff documented that solid waste had been received and processed at the the Facility without DEC authority; and

20. By causing or allowing the operation of a solid waste management facility without a permit, Respondents are in violation of 6 NYCRR §360-1.7(a)(1).

21. Respondents agree to take affirmative steps to prevent future violations of the ECL and associated rules and regulations.

NOW, having considered this matter and being duly advised, **IT IS ORDERED THAT:**

I. Cease and Desist. Respondents shall cease and desist from further violations of any provision of the ECL and implementing regulations, more particularly, ECL Article 27 and Part 360 of 6 NYCRR.

II. Compliance. Respondents shall immediately comply with all state and local solid waste-related laws, rules and regulations, including the attached Appendix A Compliance Schedule.

III Civil Penalty. That with respect to the aforesaid violations, there is hereby imposed upon Respondents a civil penalty in the sum of FIFTEEN THOUSAND DOLLARS ($15,000). The payable portion of the penalty is SEVEN THOUSAND FIVE HUNDRED DOLLARS ($7,500). The remaining SEVEN THOUSAND FIVE HUNDRED DOLLARS ($7,500) shall be suspended provided that Respondents strictly adhere to the terms and conditions outlined in this Order, including the Appendix A Compliance Schedule attached hereto and made a part hereof.

IV. Submissions. All reports and submissions required in this Order and Appendix A Compliance Schedule attached hereto shall be made to Region One, New York State Department of Environmental Conservation, 50 Circle Road, SUNY Stony Brook, Stony Brook, NY 11790-2356, Attention: Regional Materials Management Engineer, Division of Materials Management, with a copy addressed to the Regional Attorney at the same

address. All communications will be considered submitted on the date of deposit with the U.S. Postal Service or delivery to a recognized carrier service.

V. Reservation of Rights. The Department hereby reserves all its legal, administrative and equitable rights arising at common law or as granted to it pursuant to statue or regulation, including, but not limited to, any summary abatement powers of the Commissioner.

VI. Modification. In those instances in which Respondents desire that any of the provisions, terms or conditions of this Order be changed, he shall make written application, setting forth the grounds for the relief sought, to the Commissioner, c/o Regional Attorney, 50 Circle Road, SUNY Stony Brook, Stony Brook, NY 11790-2356. No change or modification to this Order shall become effective except as specifically set forth in writing and approved by the Commissioner or a duly authorized representative.

VII. Access. For the purpose of monitoring or determining compliance with this Order, employees and agents of the Department shall be provided access to the site to inspect and/or perform such tests as the Department may deem appropriate, to copy such records, or to perform any other lawful duty or responsibilities, without prior notice of such inspection.

VIII. Indemnification. Respondents shall indemnify and hold the Department, the State of New York, their representatives, employees and agents, harmless for all claims, suits, actions, damages and costs of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of the provisions presented hereof by the Respondents, their directors, officers, employees, servants, agents, successors or assigns.

IX. Future Compliance. Respondents shall conduct all solid waste-related activities in strict conformance with Federal and New York State laws and regulations. For the purpose of insuring compliance with this Order, duly authorized representatives of this Department shall be permitted access to the site during reasonable hours, in order to inspect and/or require such tests as may be deemed necessary to determine the status of Respondents' compliance herewith.

X. Binding Effect. The provisions, terms, and conditions of this Order, including the Appendix A Compliance Schedule, shall be deemed to bind Respondents and Respondents' officers, directors, agents, employees, successors and assigns and all persons, firms and corporations acting under or for him, including, but not limited to, those who may carry on any or all of the operations now being conducted by Respondents, whether at the present location or at any other in this State.

XI. Collection Costs / Fees. Respondents' failure to pay any penalty amounts due under the terms of this Order may result in a 22% surcharge in recovery costs and a potential tax refund offset by the Department of Taxation and Finance.

XII. Default of Payment. The penalty assessed in the Order constitutes a debt owed to the State of New York. Failure to pay the assessed penalty, or any part thereof, in accordance with the Order, may result in referral to the New York State Attorney General for collection of the entire amount owed (including the assessment of interest, and a charge to cover the cost of collecting the debt), or referral to the New York State Department of Taxation and Finance, which may offset any tax refund or other monies that may be owed to you by the State of New York by the penalty amount.

XIII. Effective Date. The effective date of this Order shall be the date upon which it is signed by the Commissioner or the Commissioner's Designee on behalf of the Department.

XIV. Unforeseen Events. Respondents shall not suffer any penalty under any of the provisions, terms and conditions hereof, or be subject to any proceedings or actions for any remedy or relief, if Respondents cannot comply with any requirements of the provisions hereof because of an Act of God, war, riot, or other catastrophe as to which negligence or willful misconduct on the part of Respondents was not foreseen or a proximate cause, provided, however, that Respondents shall immediately notify the Department in writing, when he obtains knowledge of any such condition and shall request an appropriate extension or modification of the provisions hereof; Respondents will adopt all reasonable measures to prevent or minimize any delay.

XV. Entire Agreement. This Order constitutes the entire agreement of the parties, and no provision of the agreement shall be deemed waived or otherwise modified without the written consent of the parties hereto or their lawfully designated successors.

Stony Brook, New York
Dated: March 21, 2018

BASIL SEGGOS
Commissioner of Department of
Environmental Conservation

By: _____
CARRIE MEEK GALLAGHER
Regional Director

TO: Steven E. Losquadro
Losquadro Law Firm
649 Route 25A
Suite 4
Rocky Point, NY 11778
Losquadrolaw@aol.com

CONSENT BY CORPORATION

Respondent, Roadwork Ahead, Inc. acknowledges the authority and jurisdiction of the Commissioner of the Department of Environmental Conservation of the State of New York to issue the foregoing Order, waive public hearing or other proceedings in the matter, accept the terms and conditions set forth in the Order and consent to the issuance thereof and agrees to be bound by the provisions, terms and conditions contained therein.

Roadwork Ahead, Inc.
Respondent

By: _____

Name: Luigi Stasi

Title: President

an individual duly authorized by the respondent corporation to sign on behalf of the corporation and whom may bind respondent corporation to the terms and conditions contained herein.

Date: 3/14/18

CORPORATE ACKNOWLEDGMENT

STATE OF NEW YORK)
) ss.:
COUNTY OF SUFFOLK)

On the 14 day of March in the year 2018, before me personally came Luigi Stasi, to me known, who, being duly sworn did depose and say that s/he resides at 218 Kirby Lane Syosset, that s/he is the President of Roadwork Ahead, In., the corporation described herein and which executed the above instrument; and that he signed his name thereto with full corporate authority so to do.

Sworn to before me this
14 day of March, 2018

_____
Notary Public

Barbara Ann Lewis
Notary Public, New York State
No. 01LE6009340
Commission Expires June 22, 2018

CONSENT BY INDIVIDUAL

Respondent acknowledges the authority and jurisdiction of the Commissioner of Environmental Conservation of the State of New York to issue the foregoing Order, waives public hearing or other proceedings in this matter, accepts the terms and conditions set forth in the Order and consents to the issuance thereof.

SIGNATURE _____
LUIGI STASI

FULL HOME ADDRESS: 2180 Kirby Lane
Syosset NY 11791

DATE: 3/14/18

ACKNOWLEDGMENT

STATE OF NEW YORK)
) ss.:
COUNTY OF SUFFOLK)

On the 14 day of March in the year 2018, before me, the undersigned, personally appeared LUIGI STASI, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his individual capacity.

Barbara Ann Lewis
Notary Public, New York State
No. 01LE6009340
Commission Expires June 22, 2018

_____
Notary Public, State of New York

Attachment A
Compliance Schedule
Roadwork Ahead, Inc. and Luigi Stasi
R1-20171027-245

I. Conformance With Regulations

Effective immediately,	Respondent(s) shall cease and desist from any and all future violations of the New York State Environmental Conservation Law and the rules and regulations enacted pursuant thereto. Respondent(s) shall abstain from operating any solid waste management facility or otherwise undertake any activity regulated under ECL §27-0707 and 6 NYCRR Part 360 without first having obtained the required authorization, as required by ECL §27-0707 and 6 NYCRR Part 360. In addition, Respondent(s) shall not conduct any exempt solid waste management activities at the site until the site is cleaned up to the satisfaction of the Department, and Respondent(s) are notified as such. References to Part 360 Series regulations in this Compliance Schedule refer to the regulations effective on November 4, 2017.

II. Site Cleanup

Within 15 days from the effective date of this Order,	Respondents shall provide a site cleanup plan that includes: a. A description of how the site will be cleaned up, including the waste placed as grade adjustment fill; b. A quantity estimate of each waste material by type, and whether stockpiled or placed in the ground; c. Procedures for classifying fill used for grade adjustment, such as test pits every 25 feet with additional test pits at the Department's discretion based on field observations; and d. A list of facilities to receive each type of waste on the site.
Upon Department approval of the site cleanup plan,	Site cleanup shall be conducted in accordance with the approved site cleanup plan and the following: a. Respondent(s) shall remove all processed and unprocessed construction and demolition debris (C&D) stockpiled at the site and placed as grade adjustment fill material **at a rate of no less than 300 cubic yards per week.** Grade adjustment fill material must be removed to native soil. Respondents may process C&D debris classified as recognizable uncontaminated concrete, asphalt, rock, brick, and soil (RUCARBS) for beneficial use in accordance with 6 NYCRR §§360.12 and 13 prior to removal. Any waste that is not classified as RUCARBS must be sent to a properly authorized facility, without any processing.

	b. All waste containing a soil matrix must be classified in accordance with 6 NYCRR §360.13, except the sampling rate must be no less than one sample per 1,000 cubic yards prior to beneficial use. Classification must include both chemical and physical characteristics by a qualified environmental professional (QEP). If any waste material is determined to be restricted-use or limited-use fill material, or other contaminated fill material, must be handled as such. c. No waste shall be sent to a facility or site which will beneficially used in accordance with 6 NYCRR §360.13 without first providing the Department the name and location of each receiving facility or beneficial use site, and copies of permits for facilities located outside of New York State. Respondent(s) must ensure if additional disposal facilities not previously provided will be used, Respondent(s) first receive Department approval to use such facilities. d. Respondent(s) shall maintain a log of the materials removed including location of disposal or beneficial use, tracking documents and disposal receipts. For each load removed, the log must include date, quantity of material, type of material, name of destination, address of destination. These shall be made available to Department staff immediately upon request.
Every Wednesday, from the commencement site cleanup until all of the required records are submitted to the satisfaction of the Department.	Respondents shall submit a summary of all loads removed. These summaries shall cover the previous calendar week (Sunday through Saturday) and include the following information: type of material, quantity of material, name of destination, address of destination.
The first business day of the month, until all disposal tickets and tracking documents are submitted.	Respondents shall submit disposal tickets and tracking documents for all solid waste materials disposed during the previous calendar month.
Within 120 days from the effective date of this Order,	Respondents must have all waste removed from the site, whether in a pile or placed as grade adjustment fill.

V. Submittals

Copies of all submittals required under this Order shall be provided to the following, as well as an electronic copy in pdf format to r1dmm@dec.ny.gov .

Regional Materials Management Engineer
New York State Department of Environmental Conservation
50 Circle Road
SUNY @ Stony Brook
Stony Brook, NY 11790

Regional Attorney
New York State Department of Environmental Conservation
50 Circle Road
SUNY @ Stony Brook
Stony Brook, NY 11790

Note: "Approvable" as used in this Order shall mean approvable by the DEC with minimal revisions. "Minimal revision" shall mean that Respondent incorporates all revisions required by the DEC and resubmits the plan for approval within fifteen (15) calendar days after receipt of the written comments by the DEC. "Full compliance" shall mean (1) Respondent has given full and complete responses to DEC's requests, if any, for additional information; and (2) Respondent has not violated any term of this Order or Compliance Schedule, Appendix A, attached thereto.

32-01-3 (8/90)-10f

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

RECEIPT

NUMBER 616664

Region Number 1 Date 3/23/18

Location Stony Brook

Received of Roadwork Ahead Inc.

In the amount of Seventy five hundred dollars $ 7500.-

For Civil penalty - R1-20171027-245

☐ Cash

☑ Check

☐ Money

Department Representative Carole Gajewski

Number 114782512 Title Secretary I

ORIGINAL

HOLD DOCUMENT UP TO THE LIGHT TO VIEW TRUE WATERMARK

OFFICIAL CHECK

HOLD DOCUMENT UP TO THE LIGHT TO VIEW TRUE WATERMARK

citiban

Citibank, N.A.

114782512

62-20
311

FC# 00281 F 006 $0.00 ONL PIC DATE 03/14/18

016-04 Ck r.# 114782512

PAY ****SE THOUSAND FIVE HUNDRED DOLLARS****

$7,500.00

TO THE ORDER OF ****N YORK STATE DEC****

NAME OF REMITTER ADDRESS ORK AHEAD INC

Citibank, N.A. One Penn's W
New Castle, DE 19720

R1-20171027-245

Drawer: Citibank, N.A.

BY AUTHORIZED SIGNATURE

MP

37

APPENDIX B

SITE CHARACTERIZATION WORK PLAN
JULY 16, 2018

Site Characterization
Work Plan

Roadwork Ahead, Inc.

1792 Middle Road
Calverton, New York

NP&V Job # 17060
Order on Consent #
R1-20171027-245

July 16, 2018

NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING

Site Characterization
Work Plan

Roadwork Ahead, Inc.

1792 Middle Road
Calverton, New York

THIS DOCUMENT CONTAINS 8 PAGES OF TEXT

COPIES AND CIRCULATION OF THIS REPORT ARE AS FOLLOWS:

Prepared For:

Mr. Nick Romero
Mr. James Wade
New York State Dept. of Environmental Conservation
50 Circle Road, SUNY at Stony Brook
Stony Brook, New York 11790

Long Island Home Builders Care Development Corp.
1757 Veterans Memorial Highway
Islandia, New York 11749

Prepared By:

Mr. Charles J. Voorhis, CEP, AICP
Nelson, Pope & Voorhis, LLC
572 Walt Whitman Road
Melville, New York 11747
(631) 427-5665

NELSON POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING

Site Characterization
Work Plan

Roadwork Ahead, Inc.

1792 Middle Road
Calverton, New York

CONTENTS

Site Characterization
Work Plan

Roadwork Ahead, Inc.

1792 Middle Road
Calverton, New York

1.0 PURPOSE AND SUMMARY

The subject property is located at 1792 Middle Road, Calverton, New York and consists of a 6.68-acre industrially zoned parcel which currently contains a residence and residential accessory structure. The subject property is proposed to be converted to an asphalt and a concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage to office and storage space.

Currently, several piles of soil, sand and comingled aggregate as well as grade adjustment fill are located throughout the property and were imported to the site without the facility maintaining an appropriate NYCRR Part 360 permit for the acceptance of this material.

An Order on Consent was issued by the New York State Department of Environmental Conservation (NYSDEC) to Roadwork Ahead, Inc. This Order was dated March 21, 2018 and required that the importation of material to the property cease and that site cleanup investigation activities be initiated to classify imported materials in accordance with NYCRR Section 360.13.

The purpose of this work plan is to outline the protocols, methods and procedures to be utilized to classify imported materials based on the requirement of the Order on Consent as well as a site walkthrough meeting conducted with Jim Wade of the NYSDEC on July 3, 2018. Based on the results of this investigation a site cleanup plan will be prepared to address the actions required to address mitigation measures required as per the Order on Consent.

2.0 INVESTIGATION/REMEDIATION EQUIPMENT, METHODS AND PROTOCOLS

Activities pursuant to this work plan will include the collection of soil samples from each pile of soil and sand material present on the subject property as well as the excavation of test pits in the adjustment fill areas of the subject property. A utility mark-out will be requested prior to completion of work. **Figure 1** provides a graphic illustration of the subject property, location of imported materials as well as the proposed location of each test pit.

A further description of proposed activities is outlined in the following sections of this work plan. All work will be completed in conformance with this work plan following NYSDEC approval as outlined herein, and/or modified through coordination with NYSDEC.

Prior to any investigative activities the NYSDEC as well as the facility owner will be notified at least 48 hours prior to any work conducted as part of this work plan.

2.1 PERSONNEL

Project oversight will be provided by NP&V personnel over the course of site remediation activities. The project manager assigned for the project will be Eric C. Arnesen, PG with Steven J. McGinn as a designated alternative. Both have a combined experience of over 50 years in environmental investigations and site remediation and possess up to date OSHA 40 hour HAZWOPER and OSHA 8 hour HAZWOPER refresher training in accordance with OSHA 29 CFR 1910.120.

2.2 AREAS OF CHARACTERIZATION

A site walk through with James Wade of the NYSDEC revealed the presence of seven (7) distinct areas/piles which need to be sampled.

- Area #1 consists of a sand pile located in the western portion of the property, south of the barn. This pile is estimated to contain approximately 1,500 cubic yards (CY) of material.
- Area #2 consists of a large soil pile in the western end of the site which is located on the north side of the barn. This pile is estimated to contain approximately 4,000 CY of material.
- Area #3 consists of three (3) small piles of soil mixed with C&D materials located on the east side of the site access connected to Middle Road. These piles are estimated to contain 70 CY of material.
- Area #4 is located slightly to the northeast of the three piles and consists of dirt. It is estimated that this pile contains approximately 750 CY of material.
- Area #5 is located east of the access roadway connected to Manor Road and consists of an elongated pile of dirt. It is estimated that this area contains approximately 1,500 CY of material

- Area #6 consists of a triangular grade adjustment fill area located to the west of the site access roadway connected to Manor Road. This area is triangular in shape with dimensions of 75 feet by 60 feet by 95 feet.
- Area #7 consists of a rectangular grade adjustment fill area located east of the access roadway connected to Manor Road. This area is rectangular in shape with a dimension of 30 feet long by 20 feet wide.

In addition, there are two (2) piles of concrete aggregate that do not need to be sampled but will be addressed as part of future mitigation activities either by removing them from the property or finding a beneficial use. Aside from the concrete and brick the aggregate, piles also contain wood and asphalt which will need to be sorted out if to be used for beneficial purposes.

2.3 SAMPLING AND ANALYSIS PROGRAM (SAP)

All soil sampling will be conducted in accordance with the requirements and protocols established in NYCRR Section 360.13 of the Part 360 Solid Waste Management Facilities General Requirements as well as the provisions of the Order on Consent.

Soil/Sand Piles

All soil/sand material contained within the piles previously noted will be classified in accordance with 6 NYCRR Section 360.13 except for the provision noted in the Order on Consent which requires that the sampling rate of each pile must be no less than one (1) sample per 1,000 CY of material. Classification will include both chemical and physical characteristics by a certified laboratory and a qualified environmental professional, respectively. Each soil sample collected for analysis will consist of a composite sample collected from three (3) to five (5) discrete sample locations within each pile or section of pile. In addition, each discrete soil sample collected will be comprised of a composite sample will be collected at various depths within the piles that range from six (6) inches to two (2) feet. Based on this criteria the number of samples collected from each pile will be as follows:

- Area #1 – Based on a volume of 1,500 CY, two (2) composite samples will be collected.
- Area #2 – Based on a volume of 4,000 CY, four (4) composite samples will be collected.
- Area #3 – Based on a volume of 70 CY, one (1) composite sample will be collected.
- Area #4 – Based on a volume of 750 CY, one (1) composite sample will be collected.
- Area #5 – Based on a volume of 1,500 CY, two (2) composite samples will be collected.

The location of the soil/ sand piles to be sampled are provided in **Figure 1**.

Composite soil samples from each pile will be inspected visually and by using a Photoionization Detector (PID) for evidence of contamination (i.e., odors, staining, separate phase hydrocarbons, etc.) and/or construction debris (i.e., concrete, wood, brick, asphalt, metal, etc.). Any evidence of contamination or contrasting fill materials will be documented in the field for future reporting. Findings from each composite soil sample will be photographed, recorded in a field notebook and reported in a Site Characterization report. Each composite soil sample will be collected, containerized and submitted for laboratory analysis.

Grade Adjustment Fill Areas

The grade adjustment fill areas will be investigated through the excavation of test pits at a frequency of every 25 feet linear feet down to a depth at which native soils are encountered. As soils are removed from each test pit they will be inspected visually and by using a PID for evidence of contamination (i.e., odors, staining, separate phase hydrocarbons, etc.) and/or construction debris (i.e., concrete, wood, brick, asphalt, metal, etc.). Any evidence of contamination or contrasting fill materials will be documented in the field for future reporting. Findings from each test pit will be photographed, recorded in a field notebook and reported in a Site Characterization report. One (1) discrete soil sample will be collected from the soils which exhibit the greatest evidence of environmental impact, containerized and submitted for laboratory analysis. If there is no evidence of impact or contamination from samples collected then samples will be drawn at random from the grade adjustment fill which lies above native soils. The number of test pits required for each grade adjustment fill area is as follows:

- Area #6 – Six (6) test pits will be installed to native soils.
- Area #7 – Two (2) test pits will be installed to native soils.

The location of test pits proposed to be excavated at the subject property are depicted on **Figure 1**.

2.4 ANALYTICAL TEST METHODS

Collected samples will be analyzed for semi-volatile organic compounds, metals, pesticides, PCBs using NYSDEC Part 375 methodology as well as asbestos by an NYSDOH ELAP-certified laboratory.

2.5 PROTOCOLS

The protocols used to direct the samples will be based upon the following documents: the New York State Department of Environmental Conservation (NYSDEC) Environmental Remediation Program Part 375 and NYSDEC, Sampling Guidelines and Protocols, Technology Background and Quality Control/Quality Assurance for NYSDEC Spill Response Program.

3.0 QUALITY ASSURANCE/QUALITY CONTROL PLAN (QA/QC)

All sampling will be conducted in accordance with USEPA accepted sampling procedures for hazardous waste streams (Municipal Research Laboratory, 1980, Sampling and Sampling Procedures for Hazardous Material Waste Streams, USEPA, Cincinnati, Ohio EPA- 600\280-018) and ASTM Material Sampling Procedures. All samples will be collected by or under the auspices of USEPA trained personnel having completed the course Sampling of Hazardous Materials, offered by the Office of Emergency and Remedial Response.

Separate QA/QC measures will be implemented for each of the instruments used in the Sampling and Analysis Program. Sampling instruments will include mechanical backhoe, stainless steel hand auger, stainless steel trowel and sample vessels.

Prior to arrival on the site and between sample locations, the probes sections will be decontaminated by washing with a detergent (alconox/liquinox) and potable water solution with distilled water rinse. The PID will be calibrated prior to sampling using a span gas of known concentration. All sample vessels will be "level A" certified decontaminated containers. Samples will be placed into vessels consistent with the analytical parameters. After acquisition, samples will be preserved in the field. All containerized samples will be refrigerated to 4^{o} C during transport and delivered to the analytical laboratory within eight (8) hours of collection.

A sample represents physical evidence, therefore, an essential part of liability reduction is the proper control of gathered evidence. To establish proper control, the following sample identification and chain-of-custody procedures will be followed.

Sample Identification

Sample identification will be executed by use of a sample tag, log book and manifest. Documentation provides the following:

1. Project Code
2. Sample Laboratory Number
3. Sample Preservation
4. Instrument Used for Source Soil Grabs
5. Composite Medium Used for Source Soil Grabs
6. Date Sample was Secured from Source Soil
7. Time Sample was Secured from Source Soil
8. Person Who Secured Sample from Source Soil

Chain-of-Custody Procedures

Due to the evidential nature of samples, possession will be traceable from the time the samples were collected until they were received by the testing laboratory. A sample will be considered under custody if:

It was in a person's possession, or
It was in a person's view, after being in possession, or
It was in a person's possession and they were to lock it up, or
It is in a designated secure area.

When transferring custody, the individuals relinquishing and receiving will sign, dated and note the time on the Chain-of- Custody Form.

Laboratory Custody Procedures

A designated sample custodian will accept custody of the shipped samples and verify that the information on the sample tags match that on the Chain-of-Custody records. Pertinent information as to shipment, pick-up, courier, etc. will be entered in the "remarks" section. The custodian will then enter the sample tag data into a bound logbook which will be arranged by project code and station number.

The laboratory custodian will use a sample tag number or assigned a unique laboratory number to each sample tag and assure that all samples will be transferred to the proper analyst or stored in the appropriate source area.

The custodian will distribute samples to the appropriate analysts. Laboratory personnel will be responsible for the care and custody of samples from the time they are received until the sample is exhausted or returned to the custodian.

All identifying data sheets and laboratory records will be retained as part of the permanent site record. Samples received by the laboratory will be retained until after analysis and quality assurance checks are completed.

4.0 REPORTING

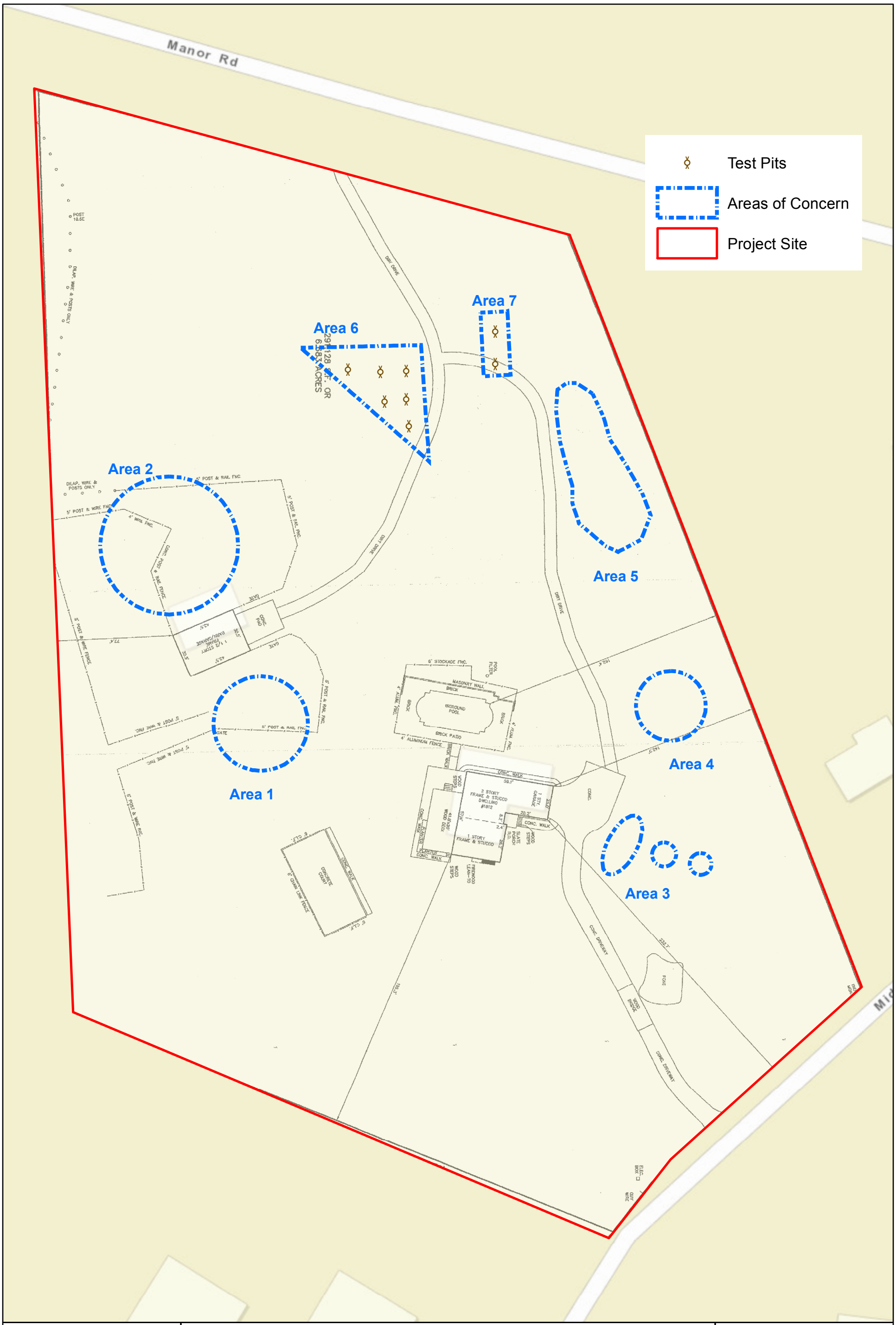
After completion of sampling activities and receipt of laboratory results, a report will be prepared for submission to NYSDEC. The report will document the investigative equipment, methods and protocols used in conformance with the work plan as well as QA/QC measures.

The report will include a table identifying any elevated compounds, compared with Part 375 "Residential" and "Protection of Groundwater" guidance values. Laboratory data sheets will be referenced and attached and a sample location map will be included. The analytical results will be summarized for review by NYSDEC.

In addition, a site cleanup plan will be prepared in accordance with the provisions outlined in the Order on Consent. The general contents of the cleanup plan will include:

- A description of the methods to be used to cleanup the subject property.
- An estimate of the quantity of the material to be removed from the subject property.
- A list of facilities to receive each type of waste.
- All material which will be required to be removed will be completed at a rate of no less than 300 cubic yards per week.
- A log will be maintained of materials removed including location of disposal or beneficial use, tracking documents and disposal receipts

FIGURE



NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING

SAMPLE LOCATION MAP

Source: ESRI WMS; Nelson & Pope drawing, 2017

Scale: 1 inch = 60 feet

N

1792 Middle Road
Calverton

Site Characterization Work Plan

APPENDIX C

INVESTIGATION PHOTOGRAPHS

AREA 1

Area 1 North Soils

Area 1 South Soils

AREA 2

Area 2 Northeast Soils

Area 2 Northwest Soils

Area 2 Southeast

Area 2 Southwest Soils

AREA 3

Area 3 Soils

AREA 4

Area 4 Soils

Area 5

Area 5 Soils

Mixed Blend Soils

Test Pit 1

Test Pit 2

Test Pit 3

Test Pit 4

Test Pit 5

Test Pit 6

Test Pit 7

APPENDIX D

LABORATORY ANALYTICAL DATASHEETS

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 8082210

September 07, 2018

Nelson, Pope & Voorhis
Eric Arnesen
572 Walt Whitman Road
Melville, NY 11747

Re: Roadwork Ahead

Dear Eric Arnesen,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on August 22, 2018. Long Island Analytical laboratories analyzed the samples on September 07, 2018 for the following:

SAMPLE ID	ANALYSIS
Area 1 North	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 1 South	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 2 NE	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 2 NW	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 2 SW	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 2 SE	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 3	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 4	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 5 North	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 5 South	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 6 TP-1	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 6 TP-2	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM

Area 6 TP-3	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 6 TP-4	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 6 TP-5	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 6 TP-6	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 7 TP-1	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM
Area 7 TP-2	NYC Part 375 (Semi-Volatile), NYC Part 375 Metals, NYC Part 375 PCB, NYC Part 375 Pesticides, PLM

Samples received at 1.3 ° C

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:27	Sample ID: Area 1 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-01 % Solid:102.56
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	300	<300	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	150	<150	ug/kg dry	
Acenaphthene	83-32-9	150	<150	ug/kg dry	
Acenaphthylene	208-96-8	150	<150	ug/kg dry	
Anthracene	120-12-7	150	<150	ug/kg dry	
Benzo(a)anthracene	56-55-3	150	<150	ug/kg dry	
Benzo(a)pyrene	50-32-8	150	<150	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	300	<300	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	150	<150	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	150	<150	ug/kg dry	
Chrysene	218-01-9	150	<150	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	150	<150	ug/kg dry	
Dibenzofuran	132-64-9	150	<150	ug/kg dry	
Fluoranthene	206-44-0	150	<150	ug/kg dry	
Fluorene	86-73-7	150	<150	ug/kg dry	
Hexachlorobenzene	118-74-1	150	<150	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	150	<150	ug/kg dry	
Naphthalene	91-20-3	150	<150	ug/kg dry	
Pentachlorophenol	87-86-5	150	<150	ug/kg dry	
Phenanthrene	85-01-8	150	<150	ug/kg dry	
Phenol	108-95-2	150	<150	ug/kg dry	
Pyrene	129-00-0	150	<150	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	47	30.8-109	
2-Fluorobiphenyl	321-60-8	47	32.6-96.2	
2-Fluorophenol	367-12-4	46	32.8-95.8	
Nitrobenzene-d5	4165-60-0	48	28.1-100	
Phenol-d6	13127-88-3	47	31.2-102	
Terphenyl-d14	1718-51-0	55	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	87	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:27	Sample ID: Area 1 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-01 % Solid:102.56
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	88	50-200	
Chrysene-d12	1719-03-5	80	50-200	
Naphthalene-d8	1146-65-2	88	50-200	
Perylene-d12	1520-96-3	78	50-200	
Phenanthrene-d10	1517-22-2	85	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:27	Sample ID: Area 1 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-01 % Solid:102.56
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	3.00	<3.00	ug/kg dry	
4,4'-DDE	72-55-9	3.00	<3.00	ug/kg dry	
4,4'-DDT	50-29-3	3.00	<3.00	ug/kg dry	
Aldrin	309-00-2	5.00	<5.00	ug/kg dry	
alpha-BHC	319-84-6	5.00	<5.00	ug/kg dry	
beta-BHC	319-85-7	5.00	<5.00	ug/kg dry	
cis-Chlordane	5103-71-9	5.00	<5.00	ug/kg dry	
delta-BHC	319-86-8	5.00	<5.00	ug/kg dry	
Dieldrin	60-57-1	5.00	<5.00	ug/kg dry	
Endosulfan I	959-98-8	5.00	<5.00	ug/kg dry	
Endosulfan II	33213-65-9	5.00	<5.00	ug/kg dry	
Endosulfan Sulfate	1031-07-8	5.00	<5.00	ug/kg dry	
Endrin	72-20-8	5.00	<5.00	ug/kg dry	
gamma-BHC	58-89-9	5.00	<5.00	ug/kg dry	
Heptachlor	76-44-8	5.00	<5.00	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	80	50.4-127	
Tetrachloro-m-xylene	877-09-8	75	57.5-127	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	97	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:27	Sample ID: Area 1 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-01 % Solid:102.56
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	10.0	<10.0	ug/kg dry	4.C
Aroclor-1221	11104-28-2	10.0	<10.0	ug/kg dry	
Aroclor-1232	11141-16-5	10.0	<10.0	ug/kg dry	
Aroclor-1242	53469-21-9	10.0	<10.0	ug/kg dry	
Aroclor-1248	12672-29-6	10.0	<10.0	ug/kg dry	
Aroclor-1254	11097-69-1	10.0	<10.0	ug/kg dry	
Aroclor-1260	11096-82-5	10.0	<10.0	ug/kg dry	
Aroclor-1262	37324-23-5	10.0	<10.0	ug/kg dry	
Aroclor-1268	11100-14-4	10.0	<10.0	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	110	25.1-153	
Tetrachloro-m-xylene	877-09-8	95	44-152	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	114	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:27	Sample ID: Area 1 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-01 % Solid:102.56
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.62	2.86	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.65	<1.65	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.67	2.79	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.67	20.4	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.67	1.74	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/30/2018	EPA 7196 A	0.500	<0.500	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/24/2018	EPA 7471 B	0.02	<0.02	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.20	<0.20	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:27	Sample ID: Area 1 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-01 % Solid:102.56
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		C
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Other	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	5.0	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	95	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:43	Sample ID: Area 1 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-02 % Solid:97.28
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	308	<308	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	154	<154	ug/kg dry	
Acenaphthene	83-32-9	154	<154	ug/kg dry	
Acenaphthylene	208-96-8	154	<154	ug/kg dry	
Anthracene	120-12-7	154	<154	ug/kg dry	
Benzo(a)anthracene	56-55-3	154	<154	ug/kg dry	
Benzo(a)pyrene	50-32-8	154	<154	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	308	<308	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	154	<154	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	154	<154	ug/kg dry	
Chrysene	218-01-9	154	<154	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	154	<154	ug/kg dry	
Dibenzofuran	132-64-9	154	<154	ug/kg dry	
Fluoranthene	206-44-0	154	<154	ug/kg dry	
Fluorene	86-73-7	154	<154	ug/kg dry	
Hexachlorobenzene	118-74-1	154	<154	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	154	<154	ug/kg dry	
Naphthalene	91-20-3	154	<154	ug/kg dry	
Pentachlorophenol	87-86-5	154	<154	ug/kg dry	
Phenanthrene	85-01-8	154	<154	ug/kg dry	
Phenol	108-95-2	154	<154	ug/kg dry	
Pyrene	129-00-0	154	<154	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	48	30.8-109	
2-Fluorobiphenyl	321-60-8	43	32.6-96.2	
2-Fluorophenol	367-12-4	40	32.8-95.8	
Nitrobenzene-d5	4165-60-0	39	28.1-100	
Phenol-d6	13127-88-3	43	31.2-102	
Terphenyl-d14	1718-51-0	58	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	95	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:43	Sample ID: Area 1 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-02 % Solid:97.28
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	98	50-200	
Chrysene-d12	1719-03-5	91	50-200	
Naphthalene-d8	1146-65-2	97	50-200	
Perylene-d12	1520-96-3	88	50-200	
Phenanthrene-d10	1517-22-2	95	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:43	Sample ID: Area 1 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-02 % Solid:97.28
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	3.08	<3.08	ug/kg dry	
4,4'-DDE	72-55-9	3.08	<3.08	ug/kg dry	
4,4'-DDT	50-29-3	3.08	<3.08	ug/kg dry	
Aldrin	309-00-2	5.14	<5.14	ug/kg dry	
alpha-BHC	319-84-6	5.14	<5.14	ug/kg dry	
beta-BHC	319-85-7	5.14	<5.14	ug/kg dry	
cis-Chlordane	5103-71-9	5.14	<5.14	ug/kg dry	
delta-BHC	319-86-8	5.14	<5.14	ug/kg dry	
Dieldrin	60-57-1	5.14	<5.14	ug/kg dry	
Endosulfan I	959-98-8	5.14	<5.14	ug/kg dry	
Endosulfan II	33213-65-9	5.14	<5.14	ug/kg dry	
Endosulfan Sulfate	1031-07-8	5.14	<5.14	ug/kg dry	
Endrin	72-20-8	5.14	<5.14	ug/kg dry	
gamma-BHC	58-89-9	5.14	<5.14	ug/kg dry	
Heptachlor	76-44-8	5.14	<5.14	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	75	50.4-127	
Tetrachloro-m-xylene	877-09-8	75	57.5-127	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	96	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:43	Sample ID: Area 1 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-02 % Solid:97.28
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	10.3	<10.3	ug/kg dry	4.C
Aroclor-1221	11104-28-2	10.3	<10.3	ug/kg dry	
Aroclor-1232	11141-16-5	10.3	<10.3	ug/kg dry	
Aroclor-1242	53469-21-9	10.3	<10.3	ug/kg dry	
Aroclor-1248	12672-29-6	10.3	<10.3	ug/kg dry	
Aroclor-1254	11097-69-1	10.3	<10.3	ug/kg dry	
Aroclor-1260	11096-82-5	10.3	<10.3	ug/kg dry	
Aroclor-1262	37324-23-5	10.3	<10.3	ug/kg dry	
Aroclor-1268	11100-14-4	10.3	<10.3	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	108	25.1-153	
Tetrachloro-m-xylene	877-09-8	95	44-152	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	114	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:43	Sample ID: Area 1 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-02 % Solid:97.28
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.63	2.34	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.65	<1.65	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.67	3.16	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.67	20.0	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.67	6.17	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/30/2018	EPA 7196 A	0.500	<0.500	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/24/2018	EPA 7471 B	0.02	<0.02	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.21	<0.21	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:43	Sample ID: Area 1 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-02 % Solid:97.28
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		C
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Other	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	5.0	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	95	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:50	Sample ID: Area 2 NE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-03 % Solid:88.27
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	340	<340	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	170	<170	ug/kg dry	
Acenaphthene	83-32-9	170	<170	ug/kg dry	
Acenaphthylene	208-96-8	170	<170	ug/kg dry	
Anthracene	120-12-7	170	<170	ug/kg dry	
Benzo(a)anthracene	56-55-3	170	<170	ug/kg dry	
Benzo(a)pyrene	50-32-8	170	<170	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	340	<340	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	170	<170	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	170	<170	ug/kg dry	
Chrysene	218-01-9	170	<170	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	170	<170	ug/kg dry	
Dibenzofuran	132-64-9	170	<170	ug/kg dry	
Fluoranthene	206-44-0	170	247	ug/kg dry	
Fluorene	86-73-7	170	<170	ug/kg dry	
Hexachlorobenzene	118-74-1	170	<170	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	170	<170	ug/kg dry	
Naphthalene	91-20-3	170	<170	ug/kg dry	
Pentachlorophenol	87-86-5	170	<170	ug/kg dry	
Phenanthrene	85-01-8	170	<170	ug/kg dry	
Phenol	108-95-2	170	<170	ug/kg dry	
Pyrene	129-00-0	170	202	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	40	30.8-109	
2-Fluorobiphenyl	321-60-8	33	32.6-96.2	
2-Fluorophenol	367-12-4	32	32.8-95.8	4.D
Nitrobenzene-d5	4165-60-0	33	28.1-100	
Phenol-d6	13127-88-3	33	31.2-102	
Terphenyl-d14	1718-51-0	37	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	96	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:50	Sample ID: Area 2 NE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-03 % Solid:88.27
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	96	50-200	
Chrysene-d12	1719-03-5	88	50-200	
Naphthalene-d8	1146-65-2	97	50-200	
Perylene-d12	1520-96-3	83	50-200	
Phenanthrene-d10	1517-22-2	94	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:50	Sample ID: Area 2 NE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-03 % Solid:88.27
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	3.40	13.5	ug/kg dry	
4,4'-DDE	72-55-9	3.40	40.9	ug/kg dry	
4,4'-DDT	50-29-3	3.40	50.2	ug/kg dry	
Aldrin	309-00-2	5.66	<5.66	ug/kg dry	
alpha-BHC	319-84-6	5.66	<5.66	ug/kg dry	
beta-BHC	319-85-7	5.66	<5.66	ug/kg dry	
cis-Chlordane	5103-71-9	5.66	12.4	ug/kg dry	
delta-BHC	319-86-8	5.66	<5.66	ug/kg dry	
Dieldrin	60-57-1	5.66	<5.66	ug/kg dry	
Endosulfan I	959-98-8	5.66	<5.66	ug/kg dry	
Endosulfan II	33213-65-9	5.66	<5.66	ug/kg dry	
Endosulfan Sulfate	1031-07-8	5.66	<5.66	ug/kg dry	
Endrin	72-20-8	5.66	<5.66	ug/kg dry	
gamma-BHC	58-89-9	5.66	<5.66	ug/kg dry	
Heptachlor	76-44-8	5.66	<5.66	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	89	50.4-127	
Tetrachloro-m-xylene	877-09-8	89	57.5-127	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	86	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:50	Sample ID: Area 2 NE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-03 % Solid:88.27
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	11.3	<11.3	ug/kg dry	4.C
Aroclor-1221	11104-28-2	11.3	<11.3	ug/kg dry	
Aroclor-1232	11141-16-5	11.3	<11.3	ug/kg dry	
Aroclor-1242	53469-21-9	11.3	<11.3	ug/kg dry	
Aroclor-1248	12672-29-6	11.3	<11.3	ug/kg dry	
Aroclor-1254	11097-69-1	11.3	<11.3	ug/kg dry	
Aroclor-1260	11096-82-5	11.3	<11.3	ug/kg dry	
Aroclor-1262	37324-23-5	11.3	<11.3	ug/kg dry	
Aroclor-1268	11100-14-4	11.3	<11.3	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	130	25.1-153	
Tetrachloro-m-xylene	877-09-8	114	44-152	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	107	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:50	Sample ID: Area 2 NE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-03 % Solid:88.27
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.76	3.98	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.76	17.4	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.76	7.99	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.76	7.74	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.76	17.7	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.76	67.3	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.76	4.20	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.76	27.8	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/30/2018	EPA 7196 A	2.73	<2.73	mg/kg dry	3.A, 3.H

Date Prepared: 08/29/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/24/2018	EPA 7471 B	0.02	0.06	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.23	<0.23	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:50	Sample ID: Area 2 NE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-03 % Solid:88.27
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	20	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	70	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:26	Sample ID: Area 2 NW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-04 % Solid:89.78
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	334	<334	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	167	<167	ug/kg dry	
Acenaphthene	83-32-9	167	<167	ug/kg dry	
Acenaphthylene	208-96-8	167	<167	ug/kg dry	
Anthracene	120-12-7	167	<167	ug/kg dry	
Benzo(a)anthracene	56-55-3	167	436	ug/kg dry	
Benzo(a)pyrene	50-32-8	167	385	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	334	567	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	167	240	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	167	195	ug/kg dry	
Chrysene	218-01-9	167	533	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	167	<167	ug/kg dry	
Dibenzofuran	132-64-9	167	<167	ug/kg dry	
Fluoranthene	206-44-0	167	1570	ug/kg dry	
Fluorene	86-73-7	167	<167	ug/kg dry	
Hexachlorobenzene	118-74-1	167	<167	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	167	<167	ug/kg dry	
Naphthalene	91-20-3	167	<167	ug/kg dry	
Pentachlorophenol	87-86-5	167	<167	ug/kg dry	
Phenanthrene	85-01-8	167	1070	ug/kg dry	
Phenol	108-95-2	167	<167	ug/kg dry	
Pyrene	129-00-0	167	1180	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	57	30.8-109	
2-Fluorobiphenyl	321-60-8	50	32.6-96.2	
2-Fluorophenol	367-12-4	48	32.8-95.8	
Nitrobenzene-d5	4165-60-0	49	28.1-100	
Phenol-d6	13127-88-3	49	31.2-102	
Terphenyl-d14	1718-51-0	55	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	92	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:26	Sample ID: Area 2 NW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-04 % Solid:89.78
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	96	50-200	
Chrysene-d12	1719-03-5	86	50-200	
Naphthalene-d8	1146-65-2	94	50-200	
Perylene-d12	1520-96-3	82	50-200	
Phenanthrene-d10	1517-22-2	92	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:26	Sample ID: Area 2 NW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-04 % Solid:89.78
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	3.34	11.4	ug/kg dry	
4,4'-DDE	72-55-9	3.34	37.0	ug/kg dry	
4,4'-DDT	50-29-3	3.34	53.8	ug/kg dry	
Aldrin	309-00-2	5.57	<5.57	ug/kg dry	
alpha-BHC	319-84-6	5.57	<5.57	ug/kg dry	
beta-BHC	319-85-7	5.57	<5.57	ug/kg dry	
cis-Chlordane	5103-71-9	5.57	<5.57	ug/kg dry	
delta-BHC	319-86-8	5.57	<5.57	ug/kg dry	
Dieldrin	60-57-1	5.57	<5.57	ug/kg dry	
Endosulfan I	959-98-8	5.57	<5.57	ug/kg dry	
Endosulfan II	33213-65-9	5.57	<5.57	ug/kg dry	
Endosulfan Sulfate	1031-07-8	5.57	<5.57	ug/kg dry	
Endrin	72-20-8	5.57	<5.57	ug/kg dry	
gamma-BHC	58-89-9	5.57	<5.57	ug/kg dry	
Heptachlor	76-44-8	5.57	<5.57	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	80	50.4-127	
Tetrachloro-m-xylene	877-09-8	79	57.5-127	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	90	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:26	Sample ID: Area 2 NW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-04 % Solid:89.78
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	11.1	<11.1	ug/kg dry	4.C
Aroclor-1221	11104-28-2	11.1	<11.1	ug/kg dry	
Aroclor-1232	11141-16-5	11.1	<11.1	ug/kg dry	
Aroclor-1242	53469-21-9	11.1	<11.1	ug/kg dry	
Aroclor-1248	12672-29-6	11.1	<11.1	ug/kg dry	
Aroclor-1254	11097-69-1	11.1	<11.1	ug/kg dry	
Aroclor-1260	11096-82-5	11.1	<11.1	ug/kg dry	
Aroclor-1262	37324-23-5	11.1	<11.1	ug/kg dry	
Aroclor-1268	11100-14-4	11.1	<11.1	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	115	25.1-153	
Tetrachloro-m-xylene	877-09-8	101	44-152	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	110	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:26	Sample ID: Area 2 NW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-04 % Solid:89.78
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.77	3.42	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.77	14.8	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.77	<1.77	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.77	<1.77	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.77	7.34	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.77	6.67	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.77	15.1	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.77	49.3	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.77	2.98	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.77	<1.77	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.77	<1.77	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.77	30.8	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/30/2018	EPA 7196 A	0.523	<0.523	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/24/2018	EPA 7471 B	0.02	0.04	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.22	<0.22	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:26	Sample ID: Area 2 NW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-04 % Solid:89.78
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	80	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	
Vegetative Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	Trace	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:15	Sample ID: Area 2 SW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-05 % Solid:89.19
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	336	<336	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	168	<168	ug/kg dry	
Acenaphthene	83-32-9	168	177	ug/kg dry	
Acenaphthylene	208-96-8	168	<168	ug/kg dry	
Anthracene	120-12-7	168	226	ug/kg dry	
Benzo(a)anthracene	56-55-3	168	446	ug/kg dry	
Benzo(a)pyrene	50-32-8	168	383	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	336	508	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	168	231	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	168	206	ug/kg dry	
Chrysene	218-01-9	168	477	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	168	<168	ug/kg dry	
Dibenzofuran	132-64-9	168	<168	ug/kg dry	
Fluoranthene	206-44-0	168	1180	ug/kg dry	
Fluorene	86-73-7	168	<168	ug/kg dry	
Hexachlorobenzene	118-74-1	168	<168	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	168	<168	ug/kg dry	
Naphthalene	91-20-3	168	<168	ug/kg dry	
Pentachlorophenol	87-86-5	168	<168	ug/kg dry	
Phenanthrene	85-01-8	168	949	ug/kg dry	
Phenol	108-95-2	168	<168	ug/kg dry	
Pyrene	129-00-0	168	955	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	57	30.8-109	
2-Fluorobiphenyl	321-60-8	48	32.6-96.2	
2-Fluorophenol	367-12-4	46	32.8-95.8	
Nitrobenzene-d5	4165-60-0	47	28.1-100	
Phenol-d6	13127-88-3	48	31.2-102	
Terphenyl-d14	1718-51-0	53	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	103	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:15	Sample ID: Area 2 SW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-05 % Solid:89.19
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	105	50-200	
Chrysene-d12	1719-03-5	93	50-200	
Naphthalene-d8	1146-65-2	106	50-200	
Perylene-d12	1520-96-3	89	50-200	
Phenanthrene-d10	1517-22-2	101	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:15	Sample ID: Area 2 SW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-05 % Solid:89.19
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	3.36	13.1	ug/kg dry	
4,4'-DDE	72-55-9	3.36	41.9	ug/kg dry	
4,4'-DDT	50-29-3	3.36	69.8	ug/kg dry	
Aldrin	309-00-2	5.61	<5.61	ug/kg dry	
alpha-BHC	319-84-6	5.61	<5.61	ug/kg dry	
beta-BHC	319-85-7	5.61	<5.61	ug/kg dry	
cis-Chlordane	5103-71-9	5.61	<5.61	ug/kg dry	
delta-BHC	319-86-8	5.61	<5.61	ug/kg dry	
Dieldrin	60-57-1	5.61	<5.61	ug/kg dry	
Endosulfan I	959-98-8	5.61	<5.61	ug/kg dry	
Endosulfan II	33213-65-9	5.61	<5.61	ug/kg dry	
Endosulfan Sulfate	1031-07-8	5.61	<5.61	ug/kg dry	
Endrin	72-20-8	5.61	<5.61	ug/kg dry	
gamma-BHC	58-89-9	5.61	<5.61	ug/kg dry	
Heptachlor	76-44-8	5.61	<5.61	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	79	50.4-127	
Tetrachloro-m-xylene	877-09-8	79	57.5-127	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	94	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:15	Sample ID: Area 2 SW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-05 % Solid:89.19
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	11.2	<11.2	ug/kg dry	4.C
Aroclor-1221	11104-28-2	11.2	<11.2	ug/kg dry	
Aroclor-1232	11141-16-5	11.2	<11.2	ug/kg dry	
Aroclor-1242	53469-21-9	11.2	<11.2	ug/kg dry	
Aroclor-1248	12672-29-6	11.2	<11.2	ug/kg dry	
Aroclor-1254	11097-69-1	11.2	<11.2	ug/kg dry	
Aroclor-1260	11096-82-5	11.2	<11.2	ug/kg dry	
Aroclor-1262	37324-23-5	11.2	<11.2	ug/kg dry	
Aroclor-1268	11100-14-4	11.2	<11.2	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	100	25.1-153	
Tetrachloro-m-xylene	877-09-8	101	44-152	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	100	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:15	Sample ID: Area 2 SW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-05 % Solid:89.19
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.87	3.24	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.87	16.7	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.87	<1.87	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.87	<1.87	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.87	7.08	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.87	8.77	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.87	16.7	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.87	57.5	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.87	3.36	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.87	<1.87	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.87	<1.87	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.87	30.8	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/30/2018	EPA 7196 A	1.09	<1.09	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/24/2018	EPA 7471 B	0.02	0.03	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.22	<0.22	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:15	Sample ID: Area 2 SW
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-05 % Solid:89.19
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	15	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	75	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:06	Sample ID: Area 2 SE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-06 % Solid:90.75
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	331	<331	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	165	<165	ug/kg dry	
Acenaphthene	83-32-9	165	<165	ug/kg dry	
Acenaphthylene	208-96-8	165	<165	ug/kg dry	
Anthracene	120-12-7	165	<165	ug/kg dry	
Benzo(a)anthracene	56-55-3	165	<165	ug/kg dry	
Benzo(a)pyrene	50-32-8	165	<165	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	331	<331	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	165	<165	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	165	<165	ug/kg dry	
Chrysene	218-01-9	165	<165	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	165	<165	ug/kg dry	
Dibenzofuran	132-64-9	165	<165	ug/kg dry	
Fluoranthene	206-44-0	165	277	ug/kg dry	
Fluorene	86-73-7	165	<165	ug/kg dry	
Hexachlorobenzene	118-74-1	165	<165	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	165	<165	ug/kg dry	
Naphthalene	91-20-3	165	<165	ug/kg dry	
Pentachlorophenol	87-86-5	165	<165	ug/kg dry	
Phenanthrene	85-01-8	165	<165	ug/kg dry	
Phenol	108-95-2	165	<165	ug/kg dry	
Pyrene	129-00-0	165	235	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	57	30.8-109	
2-Fluorobiphenyl	321-60-8	45	32.6-96.2	
2-Fluorophenol	367-12-4	44	32.8-95.8	
Nitrobenzene-d5	4165-60-0	44	28.1-100	
Phenol-d6	13127-88-3	46	31.2-102	
Terphenyl-d14	1718-51-0	53	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	102	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:06	Sample ID: Area 2 SE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-06 % Solid:90.75
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	102	50-200	
Chrysene-d12	1719-03-5	91	50-200	
Naphthalene-d8	1146-65-2	103	50-200	
Perylene-d12	1520-96-3	87	50-200	
Phenanthrene-d10	1517-22-2	99	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:06	Sample ID: Area 2 SE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-06 % Solid:90.75
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	6.61	<6.61	ug/kg dry	3.A
4,4'-DDE	72-55-9	6.61	40.2	ug/kg dry	3.E
4,4'-DDT	50-29-3	6.61	35.0	ug/kg dry	3.E
Aldrin	309-00-2	11.0	<11.0	ug/kg dry	3.A
alpha-BHC	319-84-6	11.0	<11.0	ug/kg dry	3.A
beta-BHC	319-85-7	11.0	<11.0	ug/kg dry	3.A
cis-Chlordane	5103-71-9	11.0	<11.0	ug/kg dry	3.A
delta-BHC	319-86-8	11.0	<11.0	ug/kg dry	3.A
Dieldrin	60-57-1	11.0	<11.0	ug/kg dry	3.A
Endosulfan I	959-98-8	11.0	<11.0	ug/kg dry	3.A
Endosulfan II	33213-65-9	11.0	<11.0	ug/kg dry	3.A
Endosulfan Sulfate	1031-07-8	11.0	<11.0	ug/kg dry	3.A
Endrin	72-20-8	11.0	<11.0	ug/kg dry	3.A
gamma-BHC	58-89-9	11.0	<11.0	ug/kg dry	3.A
Heptachlor	76-44-8	11.0	<11.0	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	81	50.4-127	3.E
Tetrachloro-m-xylene	877-09-8	78	57.5-127	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	94	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:06	Sample ID: Area 2 SE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-06 % Solid:90.75
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	22.0	<22.0	ug/kg dry	3.A, 4.C
Aroclor-1221	11104-28-2	22.0	<22.0	ug/kg dry	3.A
Aroclor-1232	11141-16-5	22.0	<22.0	ug/kg dry	3.A
Aroclor-1242	53469-21-9	22.0	<22.0	ug/kg dry	3.A
Aroclor-1248	12672-29-6	22.0	<22.0	ug/kg dry	3.A
Aroclor-1254	11097-69-1	22.0	<22.0	ug/kg dry	3.A
Aroclor-1260	11096-82-5	22.0	<22.0	ug/kg dry	3.A
Aroclor-1262	37324-23-5	22.0	<22.0	ug/kg dry	3.A
Aroclor-1268	11100-14-4	22.0	<22.0	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	97	25.1-153	3.E
Tetrachloro-m-xylene	877-09-8	95	44-152	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	102	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:06	Sample ID: Area 2 SE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-06 % Solid:90.75
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.68	5.05	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.68	21.5	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.68	<1.68	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.68	<1.68	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.68	10.4	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.68	7.67	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.68	18.9	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.68	95.3	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.68	7.35	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.68	<1.68	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.68	<1.68	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.68	27.7	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/30/2018	EPA 7196 A	0.509	<0.509	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/24/2018	EPA 7471 B	0.02	0.07	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.22	<0.22	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 11:06	Sample ID: Area 2 SE
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-06 % Solid:90.75
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	70	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	20	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:54	Sample ID: Area 3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-07 % Solid:97.78
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	307	<307	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	153	<153	ug/kg dry	
Acenaphthene	83-32-9	153	<153	ug/kg dry	
Acenaphthylene	208-96-8	153	<153	ug/kg dry	
Anthracene	120-12-7	153	<153	ug/kg dry	
Benzo(a)anthracene	56-55-3	153	<153	ug/kg dry	
Benzo(a)pyrene	50-32-8	153	<153	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	307	<307	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	153	<153	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	153	<153	ug/kg dry	
Chrysene	218-01-9	153	<153	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	153	<153	ug/kg dry	
Dibenzofuran	132-64-9	153	<153	ug/kg dry	
Fluoranthene	206-44-0	153	<153	ug/kg dry	
Fluorene	86-73-7	153	<153	ug/kg dry	
Hexachlorobenzene	118-74-1	153	<153	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	153	<153	ug/kg dry	
Naphthalene	91-20-3	153	<153	ug/kg dry	
Pentachlorophenol	87-86-5	153	<153	ug/kg dry	
Phenanthrene	85-01-8	153	<153	ug/kg dry	
Phenol	108-95-2	153	<153	ug/kg dry	
Pyrene	129-00-0	153	<153	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	57	30.8-109	
2-Fluorobiphenyl	321-60-8	52	32.6-96.2	
2-Fluorophenol	367-12-4	48	32.8-95.8	
Nitrobenzene-d5	4165-60-0	50	28.1-100	
Phenol-d6	13127-88-3	50	31.2-102	
Terphenyl-d14	1718-51-0	69	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	95	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:54	Sample ID: Area 3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-07 % Solid:97.78
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	97	50-200	
Chrysene-d12	1719-03-5	85	50-200	
Naphthalene-d8	1146-65-2	96	50-200	
Perylene-d12	1520-96-3	81	50-200	
Phenanthrene-d10	1517-22-2	93	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:54	Sample ID: Area 3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-07 % Solid:97.78
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	3.07	<3.07	ug/kg dry	
4,4'-DDE	72-55-9	3.07	<3.07	ug/kg dry	
4,4'-DDT	50-29-3	3.07	<3.07	ug/kg dry	
Aldrin	309-00-2	5.11	<5.11	ug/kg dry	
alpha-BHC	319-84-6	5.11	<5.11	ug/kg dry	
beta-BHC	319-85-7	5.11	<5.11	ug/kg dry	
cis-Chlordane	5103-71-9	5.11	<5.11	ug/kg dry	
delta-BHC	319-86-8	5.11	<5.11	ug/kg dry	
Dieldrin	60-57-1	5.11	<5.11	ug/kg dry	
Endosulfan I	959-98-8	5.11	<5.11	ug/kg dry	
Endosulfan II	33213-65-9	5.11	<5.11	ug/kg dry	
Endosulfan Sulfate	1031-07-8	5.11	<5.11	ug/kg dry	
Endrin	72-20-8	5.11	<5.11	ug/kg dry	
gamma-BHC	58-89-9	5.11	<5.11	ug/kg dry	
Heptachlor	76-44-8	5.11	<5.11	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	100	50.4-127	
Tetrachloro-m-xylene	877-09-8	98	57.5-127	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	73	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:54	Sample ID: Area 3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-07 % Solid:97.78
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	10.2	<10.2	ug/kg dry	4.C
Aroclor-1221	11104-28-2	10.2	<10.2	ug/kg dry	
Aroclor-1232	11141-16-5	10.2	<10.2	ug/kg dry	
Aroclor-1242	53469-21-9	10.2	<10.2	ug/kg dry	
Aroclor-1248	12672-29-6	10.2	<10.2	ug/kg dry	
Aroclor-1254	11097-69-1	10.2	<10.2	ug/kg dry	
Aroclor-1260	11096-82-5	10.2	<10.2	ug/kg dry	
Aroclor-1262	37324-23-5	10.2	<10.2	ug/kg dry	
Aroclor-1268	11100-14-4	10.2	<10.2	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	139	25.1-153	
Tetrachloro-m-xylene	877-09-8	119	44-152	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	91	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:54	Sample ID: Area 3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-07 % Solid:97.78
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.57	4.31	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.65	<1.65	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.67	3.09	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.67	3.06	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.67	2.72	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.67	36.9	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.67	9.63	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/30/2018	EPA 7196 A	0.500	<0.500	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/24/2018	EPA 7471 B	0.02	<0.02	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.20	<0.20	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 07:54	Sample ID: Area 3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-07 % Solid:97.78
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	5.0	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	80	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	15	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:11	Sample ID: Area 4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-08 % Solid:91.95
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	326	<326	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	163	<163	ug/kg dry	
Acenaphthene	83-32-9	163	<163	ug/kg dry	
Acenaphthylene	208-96-8	163	<163	ug/kg dry	
Anthracene	120-12-7	163	<163	ug/kg dry	
Benzo(a)anthracene	56-55-3	163	227	ug/kg dry	
Benzo(a)pyrene	50-32-8	163	356	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	326	466	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	163	315	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	163	179	ug/kg dry	
Chrysene	218-01-9	163	308	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	163	<163	ug/kg dry	
Dibenzofuran	132-64-9	163	<163	ug/kg dry	
Fluoranthene	206-44-0	163	539	ug/kg dry	
Fluorene	86-73-7	163	<163	ug/kg dry	
Hexachlorobenzene	118-74-1	163	<163	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	163	251	ug/kg dry	
Naphthalene	91-20-3	163	<163	ug/kg dry	
Pentachlorophenol	87-86-5	163	<163	ug/kg dry	
Phenanthrene	85-01-8	163	283	ug/kg dry	
Phenol	108-95-2	163	<163	ug/kg dry	
Pyrene	129-00-0	163	472	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	55	30.8-109	
2-Fluorobiphenyl	321-60-8	47	32.6-96.2	
2-Fluorophenol	367-12-4	45	32.8-95.8	
Nitrobenzene-d5	4165-60-0	46	28.1-100	
Phenol-d6	13127-88-3	46	31.2-102	
Terphenyl-d14	1718-51-0	51	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	95	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:11	Sample ID: Area 4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-08 % Solid:91.95
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	95	50-200	
Chrysene-d12	1719-03-5	78	50-200	
Naphthalene-d8	1146-65-2	96	50-200	
Perylene-d12	1520-96-3	78	50-200	
Phenanthrene-d10	1517-22-2	90	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:11	Sample ID: Area 4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-08 % Solid:91.95
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	16.3	<16.3	ug/kg dry	3.A
4,4'-DDE	72-55-9	16.3	<16.3	ug/kg dry	3.A
4,4'-DDT	50-29-3	16.3	<16.3	ug/kg dry	3.A
Aldrin	309-00-2	27.2	<27.2	ug/kg dry	3.A
alpha-BHC	319-84-6	27.2	<27.2	ug/kg dry	3.A
beta-BHC	319-85-7	27.2	<27.2	ug/kg dry	3.A
cis-Chlordane	5103-71-9	27.2	<27.2	ug/kg dry	3.A
delta-BHC	319-86-8	27.2	<27.2	ug/kg dry	3.A
Dieldrin	60-57-1	27.2	<27.2	ug/kg dry	3.A
Endosulfan I	959-98-8	27.2	<27.2	ug/kg dry	3.A
Endosulfan II	33213-65-9	27.2	<27.2	ug/kg dry	3.A
Endosulfan Sulfate	1031-07-8	27.2	<27.2	ug/kg dry	3.A
Endrin	72-20-8	27.2	<27.2	ug/kg dry	3.A
gamma-BHC	58-89-9	27.2	<27.2	ug/kg dry	3.A
Heptachlor	76-44-8	27.2	<27.2	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	67	50.4-127	3.E
Tetrachloro-m-xylene	877-09-8	65	57.5-127	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	100	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:11	Sample ID: Area 4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-08 % Solid:91.95
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	54.4	<54.4	ug/kg dry	3.A, 4.C
Aroclor-1221	11104-28-2	54.4	<54.4	ug/kg dry	3.A
Aroclor-1232	11141-16-5	54.4	<54.4	ug/kg dry	3.A
Aroclor-1242	53469-21-9	54.4	<54.4	ug/kg dry	3.A
Aroclor-1248	12672-29-6	54.4	<54.4	ug/kg dry	3.A
Aroclor-1254	11097-69-1	54.4	<54.4	ug/kg dry	3.A
Aroclor-1260	11096-82-5	54.4	<54.4	ug/kg dry	3.A
Aroclor-1262	37324-23-5	54.4	<54.4	ug/kg dry	3.A
Aroclor-1268	11100-14-4	54.4	<54.4	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	55	25.1-153	3.E
Tetrachloro-m-xylene	877-09-8	67	44-152	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	115	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:11	Sample ID: Area 4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-08 % Solid:91.95
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.67	4.75	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.65	25.6	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.65	<1.65	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.67	10.1	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.67	16.4	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.67	29.0	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.67	121	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.67	6.40	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.67	42.9	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/30/2018	EPA 7196 A	0.519	<0.519	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/24/2018	EPA 7471 B	0.02	0.08	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.22	<0.22	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:11	Sample ID: Area 4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-08 % Solid:91.95
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Carbonaceous Material	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Cb
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	69	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	
Vegetative Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	1.0	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:25	Sample ID: Area 5 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-09 % Solid:91.21
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	329	<329	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	164	<164	ug/kg dry	
Acenaphthene	83-32-9	164	<164	ug/kg dry	
Acenaphthylene	208-96-8	164	<164	ug/kg dry	
Anthracene	120-12-7	164	<164	ug/kg dry	
Benzo(a)anthracene	56-55-3	164	442	ug/kg dry	
Benzo(a)pyrene	50-32-8	164	559	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	329	780	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	164	430	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	164	259	ug/kg dry	
Chrysene	218-01-9	164	580	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	164	<164	ug/kg dry	
Dibenzofuran	132-64-9	164	<164	ug/kg dry	
Fluoranthene	206-44-0	164	1090	ug/kg dry	
Fluorene	86-73-7	164	<164	ug/kg dry	
Hexachlorobenzene	118-74-1	164	<164	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	164	355	ug/kg dry	
Naphthalene	91-20-3	164	<164	ug/kg dry	
Pentachlorophenol	87-86-5	164	<164	ug/kg dry	
Phenanthrene	85-01-8	164	678	ug/kg dry	
Phenol	108-95-2	164	<164	ug/kg dry	
Pyrene	129-00-0	164	916	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	52	30.8-109	
2-Fluorobiphenyl	321-60-8	54	32.6-96.2	
2-Fluorophenol	367-12-4	47	32.8-95.8	
Nitrobenzene-d5	4165-60-0	50	28.1-100	
Phenol-d6	13127-88-3	53	31.2-102	
Terphenyl-d14	1718-51-0	61	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	95	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:25	Sample ID: Area 5 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-09 % Solid:91.21
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	96	50-200	
Chrysene-d12	1719-03-5	78	50-200	
Naphthalene-d8	1146-65-2	97	50-200	
Perylene-d12	1520-96-3	80	50-200	
Phenanthrene-d10	1517-22-2	89	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:25	Sample ID: Area 5 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-09 % Solid:91.21
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	16.4	<16.4	ug/kg dry	3.A
4,4'-DDE	72-55-9	16.4	<16.4	ug/kg dry	3.A
4,4'-DDT	50-29-3	16.4	<16.4	ug/kg dry	3.A
Aldrin	309-00-2	27.4	<27.4	ug/kg dry	3.A
alpha-BHC	319-84-6	27.4	<27.4	ug/kg dry	3.A
beta-BHC	319-85-7	27.4	<27.4	ug/kg dry	3.A
cis-Chlordane	5103-71-9	27.4	<27.4	ug/kg dry	3.A
delta-BHC	319-86-8	27.4	<27.4	ug/kg dry	3.A
Dieldrin	60-57-1	27.4	<27.4	ug/kg dry	3.A
Endosulfan I	959-98-8	27.4	<27.4	ug/kg dry	3.A
Endosulfan II	33213-65-9	27.4	<27.4	ug/kg dry	3.A
Endosulfan Sulfate	1031-07-8	27.4	<27.4	ug/kg dry	3.A
Endrin	72-20-8	27.4	<27.4	ug/kg dry	3.A
gamma-BHC	58-89-9	27.4	<27.4	ug/kg dry	3.A
Heptachlor	76-44-8	27.4	<27.4	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	82	50.4-127	3.E
Tetrachloro-m-xylene	877-09-8	75	57.5-127	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	110	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:25	Sample ID: Area 5 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-09 % Solid:91.21
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	54.8	<54.8	ug/kg dry	3.A, 4.C
Aroclor-1221	11104-28-2	54.8	<54.8	ug/kg dry	3.A
Aroclor-1232	11141-16-5	54.8	<54.8	ug/kg dry	3.A
Aroclor-1242	53469-21-9	54.8	<54.8	ug/kg dry	3.A
Aroclor-1248	12672-29-6	54.8	<54.8	ug/kg dry	3.A
Aroclor-1254	11097-69-1	54.8	<54.8	ug/kg dry	3.A
Aroclor-1260	11096-82-5	54.8	<54.8	ug/kg dry	3.A
Aroclor-1262	37324-23-5	54.8	<54.8	ug/kg dry	3.A
Aroclor-1268	11100-14-4	54.8	<54.8	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	83	25.1-153	3.E
Tetrachloro-m-xylene	877-09-8	78	44-152	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	119	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:25	Sample ID: Area 5 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-09 % Solid:91.21
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.72	3.47	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.72	36.5	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.72	<1.72	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.72	<1.72	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.72	12.4	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.72	16.5	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.72	21.6	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.72	148	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.72	7.54	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.72	<1.72	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.72	<1.72	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.72	40.4	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/31/2018	EPA 7196 A	0.528	<0.528	mg/kg dry	

Date Prepared: 08/30/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/27/2018	EPA 7471 B	0.02	0.03	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.22	<0.22	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:25	Sample ID: Area 5 North
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-09 % Solid:91.21
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Carbonaceous Material	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	30	%	
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Cb
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	5.0	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	50	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	15	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:54	Sample ID: Area 5 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-10 % Solid:91.38
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	328	<328	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	164	<164	ug/kg dry	
Acenaphthene	83-32-9	164	<164	ug/kg dry	
Acenaphthylene	208-96-8	164	<164	ug/kg dry	
Anthracene	120-12-7	164	<164	ug/kg dry	
Benzo(a)anthracene	56-55-3	164	186	ug/kg dry	
Benzo(a)pyrene	50-32-8	164	301	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	328	413	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	164	280	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	164	<164	ug/kg dry	
Chrysene	218-01-9	164	268	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	164	<164	ug/kg dry	
Dibenzofuran	132-64-9	164	<164	ug/kg dry	
Fluoranthene	206-44-0	164	378	ug/kg dry	
Fluorene	86-73-7	164	<164	ug/kg dry	
Hexachlorobenzene	118-74-1	164	<164	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	164	213	ug/kg dry	
Naphthalene	91-20-3	164	<164	ug/kg dry	
Pentachlorophenol	87-86-5	164	<164	ug/kg dry	
Phenanthrene	85-01-8	164	<164	ug/kg dry	
Phenol	108-95-2	164	<164	ug/kg dry	
Pyrene	129-00-0	164	341	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	71	30.8-109	
2-Fluorobiphenyl	321-60-8	61	32.6-96.2	
2-Fluorophenol	367-12-4	58	32.8-95.8	
Nitrobenzene-d5	4165-60-0	57	28.1-100	
Phenol-d6	13127-88-3	61	31.2-102	
Terphenyl-d14	1718-51-0	66	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	103	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:54	Sample ID: Area 5 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-10 % Solid:91.38
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	103	50-200	
Chrysene-d12	1719-03-5	85	50-200	
Naphthalene-d8	1146-65-2	104	50-200	
Perylene-d12	1520-96-3	86	50-200	
Phenanthrene-d10	1517-22-2	94	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:54	Sample ID: Area 5 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-10 % Solid:91.38
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	16.4	<16.4	ug/kg dry	3.A
4,4'-DDE	72-55-9	16.4	<16.4	ug/kg dry	3.A
4,4'-DDT	50-29-3	16.4	<16.4	ug/kg dry	3.A
Aldrin	309-00-2	27.4	<27.4	ug/kg dry	3.A
alpha-BHC	319-84-6	27.4	<27.4	ug/kg dry	3.A
beta-BHC	319-85-7	27.4	<27.4	ug/kg dry	3.A
cis-Chlordane	5103-71-9	27.4	<27.4	ug/kg dry	3.A
delta-BHC	319-86-8	27.4	<27.4	ug/kg dry	3.A
Dieldrin	60-57-1	27.4	<27.4	ug/kg dry	3.A
Endosulfan I	959-98-8	27.4	<27.4	ug/kg dry	3.A
Endosulfan II	33213-65-9	27.4	<27.4	ug/kg dry	3.A
Endosulfan Sulfate	1031-07-8	27.4	<27.4	ug/kg dry	3.A
Endrin	72-20-8	27.4	<27.4	ug/kg dry	3.A
gamma-BHC	58-89-9	27.4	<27.4	ug/kg dry	3.A
Heptachlor	76-44-8	27.4	<27.4	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	74	50.4-127	3.E
Tetrachloro-m-xylene	877-09-8	70	57.5-127	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	103	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:54	Sample ID: Area 5 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-10 % Solid:91.38
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	54.7	<54.7	ug/kg dry	3.A, 4.C
Aroclor-1221	11104-28-2	54.7	<54.7	ug/kg dry	3.A
Aroclor-1232	11141-16-5	54.7	<54.7	ug/kg dry	3.A
Aroclor-1242	53469-21-9	54.7	<54.7	ug/kg dry	3.A
Aroclor-1248	12672-29-6	54.7	<54.7	ug/kg dry	3.A
Aroclor-1254	11097-69-1	54.7	<54.7	ug/kg dry	3.A
Aroclor-1260	11096-82-5	54.7	<54.7	ug/kg dry	3.A
Aroclor-1262	37324-23-5	54.7	<54.7	ug/kg dry	3.A
Aroclor-1268	11100-14-4	54.7	<54.7	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	69	25.1-153	3.E
Tetrachloro-m-xylene	877-09-8	72	44-152	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	124	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:54	Sample ID: Area 5 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-10 % Solid:91.38
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.76	5.04	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.76	27.5	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.76	10.1	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.76	15.0	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.76	27.6	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.76	217	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.76	7.14	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.76	56.6	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/31/2018	EPA 7196 A	0.521	<0.521	mg/kg dry	

Date Prepared: 08/30/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/27/2018	EPA 7471 B	0.02	0.05	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.22	<0.22	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:54	Sample ID: Area 5 South
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-10 % Solid:91.38
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	20	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	70	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:44	Sample ID: Area 6 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-11 % Solid:85.66
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	350	<350	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	175	239	ug/kg dry	
Acenaphthene	83-32-9	175	<175	ug/kg dry	
Acenaphthylene	208-96-8	175	<175	ug/kg dry	
Anthracene	120-12-7	175	<175	ug/kg dry	
Benzo(a)anthracene	56-55-3	175	237	ug/kg dry	
Benzo(a)pyrene	50-32-8	175	292	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	350	423	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	175	204	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	175	<175	ug/kg dry	
Chrysene	218-01-9	175	312	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	175	<175	ug/kg dry	
Dibenzofuran	132-64-9	175	<175	ug/kg dry	
Fluoranthene	206-44-0	175	620	ug/kg dry	
Fluorene	86-73-7	175	<175	ug/kg dry	
Hexachlorobenzene	118-74-1	175	<175	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	175	189	ug/kg dry	
Naphthalene	91-20-3	175	<175	ug/kg dry	
Pentachlorophenol	87-86-5	175	<175	ug/kg dry	
Phenanthrene	85-01-8	175	263	ug/kg dry	
Phenol	108-95-2	175	<175	ug/kg dry	
Pyrene	129-00-0	175	505	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	57	30.8-109	
2-Fluorobiphenyl	321-60-8	45	32.6-96.2	
2-Fluorophenol	367-12-4	48	32.8-95.8	
Nitrobenzene-d5	4165-60-0	43	28.1-100	
Phenol-d6	13127-88-3	50	31.2-102	
Terphenyl-d14	1718-51-0	52	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	86	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:44	Sample ID: Area 6 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-11 % Solid:85.66
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	87	50-200	
Chrysene-d12	1719-03-5	71	50-200	
Naphthalene-d8	1146-65-2	88	50-200	
Perylene-d12	1520-96-3	72	50-200	
Phenanthrene-d10	1517-22-2	80	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:44	Sample ID: Area 6 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-11 % Solid:85.66
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	3.50	10.1	ug/kg dry	
4,4'-DDE	72-55-9	3.50	22.0	ug/kg dry	
4,4'-DDT	50-29-3	3.50	18.0	ug/kg dry	
Aldrin	309-00-2	5.84	<5.84	ug/kg dry	
alpha-BHC	319-84-6	5.84	<5.84	ug/kg dry	
beta-BHC	319-85-7	5.84	<5.84	ug/kg dry	
cis-Chlordane	5103-71-9	5.84	28.7	ug/kg dry	
delta-BHC	319-86-8	5.84	<5.84	ug/kg dry	
Dieldrin	60-57-1	5.84	<5.84	ug/kg dry	
Endosulfan I	959-98-8	5.84	<5.84	ug/kg dry	
Endosulfan II	33213-65-9	5.84	<5.84	ug/kg dry	
Endosulfan Sulfate	1031-07-8	5.84	<5.84	ug/kg dry	
Endrin	72-20-8	5.84	<5.84	ug/kg dry	
gamma-BHC	58-89-9	5.84	<5.84	ug/kg dry	
Heptachlor	76-44-8	5.84	<5.84	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	69	50.4-127	
Tetrachloro-m-xylene	877-09-8	72	57.5-127	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	95	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:44	Sample ID: Area 6 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-11 % Solid:85.66
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	11.7	<11.7	ug/kg dry	4.C
Aroclor-1221	11104-28-2	11.7	<11.7	ug/kg dry	
Aroclor-1232	11141-16-5	11.7	<11.7	ug/kg dry	
Aroclor-1242	53469-21-9	11.7	<11.7	ug/kg dry	
Aroclor-1248	12672-29-6	11.7	<11.7	ug/kg dry	
Aroclor-1254	11097-69-1	11.7	<11.7	ug/kg dry	
Aroclor-1260	11096-82-5	11.7	<11.7	ug/kg dry	
Aroclor-1262	37324-23-5	11.7	<11.7	ug/kg dry	
Aroclor-1268	11100-14-4	11.7	<11.7	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	105	25.1-153	
Tetrachloro-m-xylene	877-09-8	92	44-152	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	113	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:44	Sample ID: Area 6 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-11 % Solid:85.66
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.79	4.93	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.79	20.0	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.79	<1.79	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.79	<1.79	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.79	17.4	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.79	11.4	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.79	23.2	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.79	69.6	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.79	4.57	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.79	<1.79	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.79	<1.79	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.79	34.5	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/31/2018	EPA 7196 A	2.71	<2.71	mg/kg dry	3.A

Date Prepared: 08/30/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/27/2018	EPA 7471 B	0.02	0.06	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.23	<0.23	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:44	Sample ID: Area 6 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-11 % Solid:85.66
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	25	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	60	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	13	%	
Vegetative Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	2.0	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:57	Sample ID: Area 6 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-12 % Solid:92.83
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	323	<323	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	162	189	ug/kg dry	
Acenaphthene	83-32-9	162	<162	ug/kg dry	
Acenaphthylene	208-96-8	162	<162	ug/kg dry	
Anthracene	120-12-7	162	<162	ug/kg dry	
Benzo(a)anthracene	56-55-3	162	266	ug/kg dry	
Benzo(a)pyrene	50-32-8	162	324	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	323	454	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	162	230	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	162	169	ug/kg dry	
Chrysene	218-01-9	162	349	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	162	<162	ug/kg dry	
Dibenzofuran	132-64-9	162	<162	ug/kg dry	
Fluoranthene	206-44-0	162	655	ug/kg dry	
Fluorene	86-73-7	162	<162	ug/kg dry	
Hexachlorobenzene	118-74-1	162	<162	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	162	203	ug/kg dry	
Naphthalene	91-20-3	162	<162	ug/kg dry	
Pentachlorophenol	87-86-5	162	<162	ug/kg dry	
Phenanthrene	85-01-8	162	237	ug/kg dry	
Phenol	108-95-2	162	<162	ug/kg dry	
Pyrene	129-00-0	162	543	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	69	30.8-109	
2-Fluorobiphenyl	321-60-8	59	32.6-96.2	
2-Fluorophenol	367-12-4	55	32.8-95.8	
Nitrobenzene-d5	4165-60-0	54	28.1-100	
Phenol-d6	13127-88-3	58	31.2-102	
Terphenyl-d14	1718-51-0	60	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	92	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:57	Sample ID: Area 6 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-12 % Solid:92.83
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	90	50-200	
Chrysene-d12	1719-03-5	74	50-200	
Naphthalene-d8	1146-65-2	92	50-200	
Perylene-d12	1520-96-3	75	50-200	
Phenanthrene-d10	1517-22-2	84	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:57	Sample ID: Area 6 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-12 % Solid:92.83
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	6.46	<6.46	ug/kg dry	3.A
4,4'-DDE	72-55-9	6.46	23.7	ug/kg dry	3.E
4,4'-DDT	50-29-3	6.46	<6.46	ug/kg dry	3.A
Aldrin	309-00-2	10.8	<10.8	ug/kg dry	3.A
alpha-BHC	319-84-6	10.8	<10.8	ug/kg dry	3.A
beta-BHC	319-85-7	10.8	<10.8	ug/kg dry	3.A
cis-Chlordane	5103-71-9	10.8	<10.8	ug/kg dry	3.A
delta-BHC	319-86-8	10.8	<10.8	ug/kg dry	3.A
Dieldrin	60-57-1	10.8	<10.8	ug/kg dry	3.A
Endosulfan I	959-98-8	10.8	<10.8	ug/kg dry	3.A
Endosulfan II	33213-65-9	10.8	<10.8	ug/kg dry	3.A
Endosulfan Sulfate	1031-07-8	10.8	<10.8	ug/kg dry	3.A
Endrin	72-20-8	10.8	<10.8	ug/kg dry	3.A
gamma-BHC	58-89-9	10.8	<10.8	ug/kg dry	3.A
Heptachlor	76-44-8	10.8	<10.8	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	63	50.4-127	3.E
Tetrachloro-m-xylene	877-09-8	59	57.5-127	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	101	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:57	Sample ID: Area 6 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-12 % Solid:92.83
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	21.5	<21.5	ug/kg dry	3.A, 4.C
Aroclor-1221	11104-28-2	21.5	<21.5	ug/kg dry	3.A
Aroclor-1232	11141-16-5	21.5	<21.5	ug/kg dry	3.A
Aroclor-1242	53469-21-9	21.5	<21.5	ug/kg dry	3.A
Aroclor-1248	12672-29-6	21.5	<21.5	ug/kg dry	3.A
Aroclor-1254	11097-69-1	21.5	<21.5	ug/kg dry	3.A
Aroclor-1260	11096-82-5	21.5	<21.5	ug/kg dry	3.A
Aroclor-1262	37324-23-5	21.5	<21.5	ug/kg dry	3.A
Aroclor-1268	11100-14-4	21.5	<21.5	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	82	25.1-153	3.E
Tetrachloro-m-xylene	877-09-8	71	44-152	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	122	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:57	Sample ID: Area 6 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-12 % Solid:92.83
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.67	5.15	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.65	19.0	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.65	<1.65	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.67	12.5	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.67	9.73	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.67	18.6	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.67	75.9	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.67	5.04	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.67	<1.67	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.67	36.7	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/31/2018	EPA 7196 A	2.40	<2.40	mg/kg dry	3.A

Date Prepared: 08/30/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/27/2018	EPA 7471 B	0.02	0.04	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.22	<0.22	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 08:57	Sample ID: Area 6 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-12 % Solid:92.83
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	20	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	65	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	15	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:12	Sample ID: Area 6 TP-3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-13 % Solid:92.94
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	323	<323	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	161	<161	ug/kg dry	
Acenaphthene	83-32-9	161	<161	ug/kg dry	
Acenaphthylene	208-96-8	161	<161	ug/kg dry	
Anthracene	120-12-7	161	<161	ug/kg dry	
Benzo(a)anthracene	56-55-3	161	163	ug/kg dry	
Benzo(a)pyrene	50-32-8	161	198	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	323	<323	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	161	<161	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	161	<161	ug/kg dry	
Chrysene	218-01-9	161	216	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	161	<161	ug/kg dry	
Dibenzofuran	132-64-9	161	<161	ug/kg dry	
Fluoranthene	206-44-0	161	406	ug/kg dry	
Fluorene	86-73-7	161	<161	ug/kg dry	
Hexachlorobenzene	118-74-1	161	<161	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	161	<161	ug/kg dry	
Naphthalene	91-20-3	161	<161	ug/kg dry	
Pentachlorophenol	87-86-5	161	<161	ug/kg dry	
Phenanthrene	85-01-8	161	173	ug/kg dry	
Phenol	108-95-2	161	<161	ug/kg dry	
Pyrene	129-00-0	161	332	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	70	30.8-109	
2-Fluorobiphenyl	321-60-8	63	32.6-96.2	
2-Fluorophenol	367-12-4	60	32.8-95.8	
Nitrobenzene-d5	4165-60-0	59	28.1-100	
Phenol-d6	13127-88-3	63	31.2-102	
Terphenyl-d14	1718-51-0	65	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	97	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:12	Sample ID: Area 6 TP-3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-13 % Solid:92.94
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	95	50-200	
Chrysene-d12	1719-03-5	78	50-200	
Naphthalene-d8	1146-65-2	98	50-200	
Perylene-d12	1520-96-3	78	50-200	
Phenanthrene-d10	1517-22-2	87	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:12	Sample ID: Area 6 TP-3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-13 % Solid:92.94
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	6.46	33.9	ug/kg dry	3.E
4,4'-DDE	72-55-9	6.46	86.9	ug/kg dry	3.E
4,4'-DDT	50-29-3	6.46	155	ug/kg dry	3.E
Aldrin	309-00-2	10.8	<10.8	ug/kg dry	3.A
alpha-BHC	319-84-6	10.8	<10.8	ug/kg dry	3.A
beta-BHC	319-85-7	10.8	<10.8	ug/kg dry	3.A
cis-Chlordane	5103-71-9	10.8	<10.8	ug/kg dry	3.A
delta-BHC	319-86-8	10.8	<10.8	ug/kg dry	3.A
Dieldrin	60-57-1	10.8	<10.8	ug/kg dry	3.A
Endosulfan I	959-98-8	10.8	<10.8	ug/kg dry	3.A
Endosulfan II	33213-65-9	10.8	<10.8	ug/kg dry	3.A
Endosulfan Sulfate	1031-07-8	10.8	<10.8	ug/kg dry	3.A
Endrin	72-20-8	10.8	<10.8	ug/kg dry	3.A
gamma-BHC	58-89-9	10.8	<10.8	ug/kg dry	3.A
Heptachlor	76-44-8	10.8	<10.8	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	85	50.4-127	3.E
Tetrachloro-m-xylene	877-09-8	75	57.5-127	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	97	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:12	Sample ID: Area 6 TP-3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-13 % Solid:92.94
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	21.5	<21.5	ug/kg dry	3.A, 4.C
Aroclor-1221	11104-28-2	21.5	<21.5	ug/kg dry	3.A
Aroclor-1232	11141-16-5	21.5	<21.5	ug/kg dry	3.A
Aroclor-1242	53469-21-9	21.5	<21.5	ug/kg dry	3.A
Aroclor-1248	12672-29-6	21.5	<21.5	ug/kg dry	3.A
Aroclor-1254	11097-69-1	21.5	<21.5	ug/kg dry	3.A
Aroclor-1260	11096-82-5	21.5	<21.5	ug/kg dry	3.A
Aroclor-1262	37324-23-5	21.5	<21.5	ug/kg dry	3.A
Aroclor-1268	11100-14-4	21.5	<21.5	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	115	25.1-153	3.E
Tetrachloro-m-xylene	877-09-8	92	44-152	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	115	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:12	Sample ID: Area 6 TP-3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-13 % Solid:92.94
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.76	4.34	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.76	15.6	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.76	6.66	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.76	8.51	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.76	20.9	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.76	61.8	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.76	3.44	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.76	<1.76	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.76	27.0	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/31/2018	EPA 7196 A	0.500	<0.500	mg/kg dry	

Date Prepared: 08/30/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/27/2018	EPA 7471 B	0.02	0.03	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	08/31/2018	EPA 9014	0.22	<0.22	mg/kg dry	

Date Prepared: 08/29/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:12	Sample ID: Area 6 TP-3
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-13 % Solid:92.94
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	15	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	70	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	15	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:22	Sample ID: Area 6 TP-4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-14 % Solid:91.56
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	328	<328	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	164	<164	ug/kg dry	
Acenaphthene	83-32-9	164	<164	ug/kg dry	
Acenaphthylene	208-96-8	164	<164	ug/kg dry	
Anthracene	120-12-7	164	<164	ug/kg dry	
Benzo(a)anthracene	56-55-3	164	<164	ug/kg dry	
Benzo(a)pyrene	50-32-8	164	<164	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	328	<328	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	164	<164	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	164	<164	ug/kg dry	
Chrysene	218-01-9	164	<164	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	164	<164	ug/kg dry	
Dibenzofuran	132-64-9	164	<164	ug/kg dry	
Fluoranthene	206-44-0	164	<164	ug/kg dry	
Fluorene	86-73-7	164	<164	ug/kg dry	
Hexachlorobenzene	118-74-1	164	<164	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	164	<164	ug/kg dry	
Naphthalene	91-20-3	164	<164	ug/kg dry	
Pentachlorophenol	87-86-5	164	<164	ug/kg dry	
Phenanthrene	85-01-8	164	<164	ug/kg dry	
Phenol	108-95-2	164	<164	ug/kg dry	
Pyrene	129-00-0	164	<164	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	76	30.8-109	
2-Fluorobiphenyl	321-60-8	65	32.6-96.2	
2-Fluorophenol	367-12-4	63	32.8-95.8	
Nitrobenzene-d5	4165-60-0	60	28.1-100	
Phenol-d6	13127-88-3	65	31.2-102	
Terphenyl-d14	1718-51-0	71	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	85	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:22	Sample ID: Area 6 TP-4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-14 % Solid:91.56
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	84	50-200	
Chrysene-d12	1719-03-5	70	50-200	
Naphthalene-d8	1146-65-2	86	50-200	
Perylene-d12	1520-96-3	70	50-200	
Phenanthrene-d10	1517-22-2	79	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:22	Sample ID: Area 6 TP-4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-14 % Solid:91.56
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	3.28	9.83	ug/kg dry	
4,4'-DDE	72-55-9	3.28	92.2	ug/kg dry	
4,4'-DDT	50-29-3	3.28	96.8	ug/kg dry	
Aldrin	309-00-2	5.46	<5.46	ug/kg dry	
alpha-BHC	319-84-6	5.46	<5.46	ug/kg dry	
beta-BHC	319-85-7	5.46	<5.46	ug/kg dry	
cis-Chlordane	5103-71-9	5.46	<5.46	ug/kg dry	
delta-BHC	319-86-8	5.46	<5.46	ug/kg dry	
Dieldrin	60-57-1	5.46	26.2	ug/kg dry	
Endosulfan I	959-98-8	5.46	<5.46	ug/kg dry	
Endosulfan II	33213-65-9	5.46	<5.46	ug/kg dry	
Endosulfan Sulfate	1031-07-8	5.46	<5.46	ug/kg dry	
Endrin	72-20-8	5.46	<5.46	ug/kg dry	
gamma-BHC	58-89-9	5.46	<5.46	ug/kg dry	
Heptachlor	76-44-8	5.46	<5.46	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	82	50.4-127	
Tetrachloro-m-xylene	877-09-8	83	57.5-127	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	92	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:22	Sample ID: Area 6 TP-4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-14 % Solid:91.56
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	10.9	<10.9	ug/kg dry	4.C
Aroclor-1221	11104-28-2	10.9	<10.9	ug/kg dry	
Aroclor-1232	11141-16-5	10.9	<10.9	ug/kg dry	
Aroclor-1242	53469-21-9	10.9	<10.9	ug/kg dry	
Aroclor-1248	12672-29-6	10.9	<10.9	ug/kg dry	
Aroclor-1254	11097-69-1	10.9	<10.9	ug/kg dry	
Aroclor-1260	11096-82-5	10.9	<10.9	ug/kg dry	
Aroclor-1262	37324-23-5	10.9	<10.9	ug/kg dry	
Aroclor-1268	11100-14-4	10.9	<10.9	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	111	25.1-153	
Tetrachloro-m-xylene	877-09-8	107	44-152	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	111	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:22	Sample ID: Area 6 TP-4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-14 % Solid:91.56
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.80	6.51	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.80	13.4	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.80	<1.80	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.80	<1.80	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.80	32.1	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.80	8.69	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.80	5.28	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.80	47.1	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.80	4.58	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.80	<1.80	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.80	<1.80	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.80	16.1	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/31/2018	EPA 7196 A	0.500	<0.500	mg/kg dry	4.G

Date Prepared: 08/30/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/27/2018	EPA 7471 B	0.02	<0.02	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	09/07/2018	EPA 9014	0.22	<0.22	mg/kg dry	

Date Prepared: 09/05/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:22	Sample ID: Area 6 TP-4
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-14 % Solid:91.56
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	80	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:39	Sample ID: Area 6 TP-5
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-15 % Solid:94.25
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	318	<318	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	159	<159	ug/kg dry	
Acenaphthene	83-32-9	159	<159	ug/kg dry	
Acenaphthylene	208-96-8	159	<159	ug/kg dry	
Anthracene	120-12-7	159	<159	ug/kg dry	
Benzo(a)anthracene	56-55-3	159	<159	ug/kg dry	
Benzo(a)pyrene	50-32-8	159	162	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	318	<318	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	159	<159	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	159	<159	ug/kg dry	
Chrysene	218-01-9	159	<159	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	159	<159	ug/kg dry	
Dibenzofuran	132-64-9	159	<159	ug/kg dry	
Fluoranthene	206-44-0	159	207	ug/kg dry	
Fluorene	86-73-7	159	<159	ug/kg dry	
Hexachlorobenzene	118-74-1	159	<159	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	159	<159	ug/kg dry	
Naphthalene	91-20-3	159	<159	ug/kg dry	
Pentachlorophenol	87-86-5	159	<159	ug/kg dry	
Phenanthrene	85-01-8	159	<159	ug/kg dry	
Phenol	108-95-2	159	<159	ug/kg dry	
Pyrene	129-00-0	159	182	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	72	30.8-109	
2-Fluorobiphenyl	321-60-8	62	32.6-96.2	
2-Fluorophenol	367-12-4	58	32.8-95.8	
Nitrobenzene-d5	4165-60-0	55	28.1-100	
Phenol-d6	13127-88-3	61	31.2-102	
Terphenyl-d14	1718-51-0	66	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	91	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:39	Sample ID: Area 6 TP-5
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-15 % Solid:94.25
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	90	50-200	
Chrysene-d12	1719-03-5	73	50-200	
Naphthalene-d8	1146-65-2	92	50-200	
Perylene-d12	1520-96-3	74	50-200	
Phenanthrene-d10	1517-22-2	85	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:39	Sample ID: Area 6 TP-5
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-15 % Solid:94.25
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	6.37	<6.37	ug/kg dry	3.A
4,4'-DDE	72-55-9	6.37	28.9	ug/kg dry	3.E
4,4'-DDT	50-29-3	6.37	26.8	ug/kg dry	3.E
Aldrin	309-00-2	10.6	<10.6	ug/kg dry	3.A
alpha-BHC	319-84-6	10.6	<10.6	ug/kg dry	3.A
beta-BHC	319-85-7	10.6	<10.6	ug/kg dry	3.A
cis-Chlordane	5103-71-9	10.6	<10.6	ug/kg dry	3.A
delta-BHC	319-86-8	10.6	<10.6	ug/kg dry	3.A
Dieldrin	60-57-1	10.6	<10.6	ug/kg dry	3.A
Endosulfan I	959-98-8	10.6	<10.6	ug/kg dry	3.A
Endosulfan II	33213-65-9	10.6	<10.6	ug/kg dry	3.A
Endosulfan Sulfate	1031-07-8	10.6	<10.6	ug/kg dry	3.A
Endrin	72-20-8	10.6	<10.6	ug/kg dry	3.A
gamma-BHC	58-89-9	10.6	<10.6	ug/kg dry	3.A
Heptachlor	76-44-8	10.6	<10.6	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	76	50.4-127	3.E
Tetrachloro-m-xylene	877-09-8	73	57.5-127	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	94	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:39	Sample ID: Area 6 TP-5
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-15 % Solid:94.25
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	21.2	<21.2	ug/kg dry	3.A, 4.C
Aroclor-1221	11104-28-2	21.2	<21.2	ug/kg dry	3.A
Aroclor-1232	11141-16-5	21.2	<21.2	ug/kg dry	3.A
Aroclor-1242	53469-21-9	21.2	<21.2	ug/kg dry	3.A
Aroclor-1248	12672-29-6	21.2	<21.2	ug/kg dry	3.A
Aroclor-1254	11097-69-1	21.2	<21.2	ug/kg dry	3.A
Aroclor-1260	11096-82-5	21.2	<21.2	ug/kg dry	3.A
Aroclor-1262	37324-23-5	21.2	<21.2	ug/kg dry	3.A
Aroclor-1268	11100-14-4	21.2	<21.2	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	91	25.1-153	3.E
Tetrachloro-m-xylene	877-09-8	88	44-152	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	105	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:39	Sample ID: Area 6 TP-5
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-15 % Solid:94.25
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/23/2018	EPA 6010 C	1.73	4.65	mg/kg dry	
Barium	08/23/2018	EPA 6010 C	1.73	22.1	mg/kg dry	
Beryllium	08/23/2018	EPA 6010 C	1.73	<1.73	mg/kg dry	
Cadmium	08/23/2018	EPA 6010 C	1.73	<1.73	mg/kg dry	
Chromium	08/23/2018	EPA 6010 C	1.73	9.67	mg/kg dry	
Copper	08/23/2018	EPA 6010 C	1.73	8.89	mg/kg dry	
Lead	08/23/2018	EPA 6010 C	1.73	17.9	mg/kg dry	
Manganese	08/23/2018	EPA 6010 C	1.73	93.2	mg/kg dry	
Nickel	08/23/2018	EPA 6010 C	1.73	5.40	mg/kg dry	
Selenium	08/23/2018	EPA 6010 C	1.73	<1.73	mg/kg dry	
Silver	08/23/2018	EPA 6010 C	1.73	<1.73	mg/kg dry	
Zinc	08/23/2018	EPA 6010 C	1.73	28.3	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/31/2018	EPA 7196 A	0.500	<0.500	mg/kg dry	

Date Prepared: 08/30/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/27/2018	EPA 7471 B	0.02	0.03	mg/kg dry	

Date Prepared: 08/23/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	09/07/2018	EPA 9014	0.21	<0.21	mg/kg dry	

Date Prepared: 09/05/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 09:39	Sample ID: Area 6 TP-5
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-15 % Solid:94.25
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	75	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	15	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:00	Sample ID: Area 6 TP-6
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-16 % Solid:89.87
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	334	<334	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	167	<167	ug/kg dry	
Acenaphthene	83-32-9	167	<167	ug/kg dry	
Acenaphthylene	208-96-8	167	<167	ug/kg dry	
Anthracene	120-12-7	167	<167	ug/kg dry	
Benzo(a)anthracene	56-55-3	167	<167	ug/kg dry	
Benzo(a)pyrene	50-32-8	167	<167	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	334	<334	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	167	<167	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	167	<167	ug/kg dry	
Chrysene	218-01-9	167	<167	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	167	<167	ug/kg dry	
Dibenzofuran	132-64-9	167	<167	ug/kg dry	
Fluoranthene	206-44-0	167	<167	ug/kg dry	
Fluorene	86-73-7	167	<167	ug/kg dry	
Hexachlorobenzene	118-74-1	167	<167	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	167	<167	ug/kg dry	
Naphthalene	91-20-3	167	<167	ug/kg dry	
Pentachlorophenol	87-86-5	167	<167	ug/kg dry	
Phenanthrene	85-01-8	167	<167	ug/kg dry	
Phenol	108-95-2	167	<167	ug/kg dry	
Pyrene	129-00-0	167	<167	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	59	30.8-109	
2-Fluorobiphenyl	321-60-8	51	32.6-96.2	
2-Fluorophenol	367-12-4	49	32.8-95.8	
Nitrobenzene-d5	4165-60-0	49	28.1-100	
Phenol-d6	13127-88-3	51	31.2-102	
Terphenyl-d14	1718-51-0	56	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	91	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:00	Sample ID: Area 6 TP-6
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-16 % Solid:89.87
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	91	50-200	
Chrysene-d12	1719-03-5	75	50-200	
Naphthalene-d8	1146-65-2	91	50-200	
Perylene-d12	1520-96-3	74	50-200	
Phenanthrene-d10	1517-22-2	85	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/23/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:00	Sample ID: Area 6 TP-6
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-16 % Solid:89.87
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	3.34	12.2	ug/kg dry	
4,4'-DDE	72-55-9	3.34	31.4	ug/kg dry	
4,4'-DDT	50-29-3	3.34	<3.34	ug/kg dry	
Aldrin	309-00-2	5.56	<5.56	ug/kg dry	
alpha-BHC	319-84-6	5.56	<5.56	ug/kg dry	
beta-BHC	319-85-7	5.56	<5.56	ug/kg dry	
cis-Chlordane	5103-71-9	5.56	<5.56	ug/kg dry	
delta-BHC	319-86-8	5.56	<5.56	ug/kg dry	
Dieldrin	60-57-1	5.56	<5.56	ug/kg dry	
Endosulfan I	959-98-8	5.56	<5.56	ug/kg dry	
Endosulfan II	33213-65-9	5.56	<5.56	ug/kg dry	
Endosulfan Sulfate	1031-07-8	5.56	<5.56	ug/kg dry	
Endrin	72-20-8	5.56	<5.56	ug/kg dry	
gamma-BHC	58-89-9	5.56	<5.56	ug/kg dry	
Heptachlor	76-44-8	5.56	<5.56	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	78	50.4-127	
Tetrachloro-m-xylene	877-09-8	77	57.5-127	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	97	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:00	Sample ID: Area 6 TP-6
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-16 % Solid:89.87
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	11.1	<11.1	ug/kg dry	4.C
Aroclor-1221	11104-28-2	11.1	<11.1	ug/kg dry	
Aroclor-1232	11141-16-5	11.1	<11.1	ug/kg dry	
Aroclor-1242	53469-21-9	11.1	<11.1	ug/kg dry	
Aroclor-1248	12672-29-6	11.1	<11.1	ug/kg dry	
Aroclor-1254	11097-69-1	11.1	<11.1	ug/kg dry	
Aroclor-1260	11096-82-5	11.1	<11.1	ug/kg dry	
Aroclor-1262	37324-23-5	11.1	<11.1	ug/kg dry	
Aroclor-1268	11100-14-4	11.1	<11.1	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	113	25.1-153	
Tetrachloro-m-xylene	877-09-8	101	44-152	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	109	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:00	Sample ID: Area 6 TP-6
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-16 % Solid:89.87
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/28/2018	EPA 6010 C	1.78	8.37	mg/kg dry	
Barium	08/28/2018	EPA 6010 C	1.78	35.9	mg/kg dry	
Beryllium	08/28/2018	EPA 6010 C	1.78	<1.78	mg/kg dry	
Cadmium	08/28/2018	EPA 6010 C	1.78	<1.78	mg/kg dry	
Chromium	08/28/2018	EPA 6010 C	1.78	19.6	mg/kg dry	
Copper	08/28/2018	EPA 6010 C	1.78	13.6	mg/kg dry	
Lead	08/28/2018	EPA 6010 C	1.78	33.0	mg/kg dry	
Manganese	08/28/2018	EPA 6010 C	1.78	177	mg/kg dry	
Nickel	08/28/2018	EPA 6010 C	1.78	9.66	mg/kg dry	
Selenium	08/28/2018	EPA 6010 C	1.78	<1.78	mg/kg dry	
Silver	08/28/2018	EPA 6010 C	1.78	<1.78	mg/kg dry	
Zinc	08/28/2018	EPA 6010 C	1.78	33.6	mg/kg dry	

Date Prepared: 08/27/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/31/2018	EPA 7196 A	0.526	<0.526	mg/kg dry	

Date Prepared: 08/30/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/30/2018	EPA 7471 B	0.02	0.17	mg/kg dry	

Date Prepared: 08/27/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	09/07/2018	EPA 9014	0.22	<0.22	mg/kg dry	

Date Prepared: 09/05/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:00	Sample ID: Area 6 TP-6
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-16 % Solid:89.87
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	20	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	60	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	20	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:10	Sample ID: Area 7 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-17 % Solid:93.31
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	322	<322	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	161	<161	ug/kg dry	
Acenaphthene	83-32-9	161	<161	ug/kg dry	
Acenaphthylene	208-96-8	161	<161	ug/kg dry	
Anthracene	120-12-7	161	<161	ug/kg dry	
Benzo(a)anthracene	56-55-3	161	208	ug/kg dry	
Benzo(a)pyrene	50-32-8	161	267	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	322	401	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	161	226	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	161	<161	ug/kg dry	
Chrysene	218-01-9	161	288	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	161	<161	ug/kg dry	
Dibenzofuran	132-64-9	161	<161	ug/kg dry	
Fluoranthene	206-44-0	161	439	ug/kg dry	
Fluorene	86-73-7	161	<161	ug/kg dry	
Hexachlorobenzene	118-74-1	161	<161	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	161	221	ug/kg dry	
Naphthalene	91-20-3	161	<161	ug/kg dry	
Pentachlorophenol	87-86-5	161	<161	ug/kg dry	
Phenanthrene	85-01-8	161	<161	ug/kg dry	
Phenol	108-95-2	161	<161	ug/kg dry	
Pyrene	129-00-0	161	363	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	61	30.8-109	
2-Fluorobiphenyl	321-60-8	54	32.6-96.2	
2-Fluorophenol	367-12-4	52	32.8-95.8	
Nitrobenzene-d5	4165-60-0	51	28.1-100	
Phenol-d6	13127-88-3	54	31.2-102	
Terphenyl-d14	1718-51-0	58	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	100	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:10	Sample ID: Area 7 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-17 % Solid:93.31
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	97	50-200	
Chrysene-d12	1719-03-5	89	50-200	
Naphthalene-d8	1146-65-2	98	50-200	
Perylene-d12	1520-96-3	92	50-200	
Phenanthrene-d10	1517-22-2	96	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:10	Sample ID: Area 7 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-17 % Solid:93.31
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	16.1	<16.1	ug/kg dry	3.A
4,4'-DDE	72-55-9	16.1	<16.1	ug/kg dry	3.A
4,4'-DDT	50-29-3	16.1	<16.1	ug/kg dry	3.A
Aldrin	309-00-2	26.8	<26.8	ug/kg dry	3.A
alpha-BHC	319-84-6	26.8	<26.8	ug/kg dry	3.A
beta-BHC	319-85-7	26.8	<26.8	ug/kg dry	3.A
cis-Chlordane	5103-71-9	26.8	<26.8	ug/kg dry	3.A
delta-BHC	319-86-8	26.8	<26.8	ug/kg dry	3.A
Dieldrin	60-57-1	26.8	<26.8	ug/kg dry	3.A
Endosulfan I	959-98-8	26.8	<26.8	ug/kg dry	3.A
Endosulfan II	33213-65-9	26.8	<26.8	ug/kg dry	3.A
Endosulfan Sulfate	1031-07-8	26.8	<26.8	ug/kg dry	3.A
Endrin	72-20-8	26.8	<26.8	ug/kg dry	3.A
gamma-BHC	58-89-9	26.8	<26.8	ug/kg dry	3.A
Heptachlor	76-44-8	26.8	<26.8	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	71	50.4-127	3.E
Tetrachloro-m-xylene	877-09-8	67	57.5-127	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	110	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:10	Sample ID: Area 7 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-17 % Solid:93.31
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	53.6	<53.6	ug/kg dry	3.A, 4.C
Aroclor-1221	11104-28-2	53.6	<53.6	ug/kg dry	3.A
Aroclor-1232	11141-16-5	53.6	<53.6	ug/kg dry	3.A
Aroclor-1242	53469-21-9	53.6	<53.6	ug/kg dry	3.A
Aroclor-1248	12672-29-6	53.6	<53.6	ug/kg dry	3.A
Aroclor-1254	11097-69-1	53.6	<53.6	ug/kg dry	3.A
Aroclor-1260	11096-82-5	53.6	<53.6	ug/kg dry	3.A
Aroclor-1262	37324-23-5	53.6	<53.6	ug/kg dry	3.A
Aroclor-1268	11100-14-4	53.6	<53.6	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	66	25.1-153	3.E
Tetrachloro-m-xylene	877-09-8	70	44-152	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	119	50-200	

Date Prepared: 08/23/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:10	Sample ID: Area 7 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-17 % Solid:93.31
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/28/2018	EPA 6010 C	1.73	11.8	mg/kg dry	
Barium	08/28/2018	EPA 6010 C	1.73	24.0	mg/kg dry	
Beryllium	08/28/2018	EPA 6010 C	1.73	<1.73	mg/kg dry	
Cadmium	08/28/2018	EPA 6010 C	1.73	<1.73	mg/kg dry	
Chromium	08/28/2018	EPA 6010 C	1.73	9.66	mg/kg dry	
Copper	08/28/2018	EPA 6010 C	1.73	27.6	mg/kg dry	
Lead	08/28/2018	EPA 6010 C	1.73	24.2	mg/kg dry	
Manganese	08/28/2018	EPA 6010 C	1.73	124	mg/kg dry	
Nickel	08/28/2018	EPA 6010 C	1.73	9.02	mg/kg dry	
Selenium	08/28/2018	EPA 6010 C	1.73	<1.73	mg/kg dry	
Silver	08/28/2018	EPA 6010 C	1.73	<1.73	mg/kg dry	
Zinc	08/28/2018	EPA 6010 C	1.73	35.2	mg/kg dry	

Date Prepared: 08/27/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/31/2018	EPA 7196 A	0.500	<0.500	mg/kg dry	

Date Prepared: 08/30/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/30/2018	EPA 7471 B	0.02	0.06	mg/kg dry	

Date Prepared: 08/27/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	09/07/2018	EPA 9014	0.21	<0.21	mg/kg dry	

Date Prepared: 09/05/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:10	Sample ID: Area 7 TP-1
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-17 % Solid:93.31
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Cb
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	15	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	68	%	
Resin	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	2.0	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	15	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:20	Sample ID: Area 7 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-18 % Solid:93.32
Matrix: Soil	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2-Methylphenol	95-48-7	321	<321	ug/kg dry	
3/4-Methylphenol	108-39-4/106-44-5	161	<161	ug/kg dry	
Acenaphthene	83-32-9	161	<161	ug/kg dry	
Acenaphthylene	208-96-8	161	<161	ug/kg dry	
Anthracene	120-12-7	161	<161	ug/kg dry	
Benzo(a)anthracene	56-55-3	161	230	ug/kg dry	
Benzo(a)pyrene	50-32-8	161	344	ug/kg dry	
Benzo(b)fluoranthene	205-99-2	321	437	ug/kg dry	
Benzo(g,h,i)perylene	191-24-2	161	294	ug/kg dry	
Benzo(k)fluoranthene	207-08-9	161	176	ug/kg dry	
Chrysene	218-01-9	161	315	ug/kg dry	
Dibenzo(a,h)anthracene	53-70-3	161	<161	ug/kg dry	
Dibenzofuran	132-64-9	161	<161	ug/kg dry	
Fluoranthene	206-44-0	161	481	ug/kg dry	
Fluorene	86-73-7	161	<161	ug/kg dry	
Hexachlorobenzene	118-74-1	161	<161	ug/kg dry	
Indeno(1,2,3-cd)pyrene	193-39-5	161	247	ug/kg dry	
Naphthalene	91-20-3	161	<161	ug/kg dry	
Pentachlorophenol	87-86-5	161	<161	ug/kg dry	
Phenanthrene	85-01-8	161	199	ug/kg dry	
Phenol	108-95-2	161	<161	ug/kg dry	
Pyrene	129-00-0	161	476	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	65	30.8-109	
2-Fluorobiphenyl	321-60-8	58	32.6-96.2	
2-Fluorophenol	367-12-4	56	32.8-95.8	
Nitrobenzene-d5	4165-60-0	55	28.1-100	
Phenol-d6	13127-88-3	57	31.2-102	
Terphenyl-d14	1718-51-0	62	32.6-110	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	95	50-200	

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:20	Sample ID: Area 7 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-18 % Solid:93.32
Matrix: Soil	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Acenaphthene-d10	15067-26-2	93	50-200	
Chrysene-d12	1719-03-5	84	50-200	
Naphthalene-d8	1146-65-2	93	50-200	
Perylene-d12	1520-96-3	87	50-200	
Phenanthrene-d10	1517-22-2	90	50-200	

Date Prepared: 08/22/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/24/2018

Analytical Method: EPA 8270 D

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:20	Sample ID: Area 7 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-18 % Solid:93.32
Matrix: Soil	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	16.1	<16.1	ug/kg dry	3.A
4,4'-DDE	72-55-9	16.1	<16.1	ug/kg dry	3.A
4,4'-DDT	50-29-3	16.1	<16.1	ug/kg dry	3.A
Aldrin	309-00-2	26.8	<26.8	ug/kg dry	3.A
alpha-BHC	319-84-6	26.8	<26.8	ug/kg dry	3.A
beta-BHC	319-85-7	26.8	<26.8	ug/kg dry	3.A
cis-Chlordane	5103-71-9	26.8	<26.8	ug/kg dry	3.A
delta-BHC	319-86-8	26.8	<26.8	ug/kg dry	3.A
Dieldrin	60-57-1	26.8	<26.8	ug/kg dry	3.A
Endosulfan I	959-98-8	26.8	<26.8	ug/kg dry	3.A, 4.J
Endosulfan II	33213-65-9	26.8	<26.8	ug/kg dry	3.A
Endosulfan Sulfate	1031-07-8	26.8	<26.8	ug/kg dry	3.A
Endrin	72-20-8	26.8	<26.8	ug/kg dry	3.A
gamma-BHC	58-89-9	26.8	<26.8	ug/kg dry	3.A
Heptachlor	76-44-8	26.8	<26.8	ug/kg dry	3.A

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	66	50.4-127	3.E
Tetrachloro-m-xylene	877-09-8	72	57.5-127	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	119	50-200	

Date Prepared: 08/28/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/29/2018

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:20	Sample ID: Area 7 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-18 % Solid:93.32
Matrix: Soil	ELAP: #11693

PCB/Aroclor Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
Aroclor-1016	12674-11-2	53.6	<53.6	ug/kg dry	3.A, 4.F
Aroclor-1221	11104-28-2	53.6	<53.6	ug/kg dry	
Aroclor-1232	11141-16-5	53.6	<53.6	ug/kg dry	
Aroclor-1242	53469-21-9	53.6	<53.6	ug/kg dry	
Aroclor-1248	12672-29-6	53.6	<53.6	ug/kg dry	
Aroclor-1254	11097-69-1	53.6	<53.6	ug/kg dry	
Aroclor-1260	11096-82-5	53.6	<53.6	ug/kg dry	3.A, 4.F
Aroclor-1262	37324-23-5	53.6	<53.6	ug/kg dry	
Aroclor-1268	11100-14-4	53.6	<53.6	ug/kg dry	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	57	25.1-153	3.E
Tetrachloro-m-xylene	877-09-8	73	44-152	3.E

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	127	50-200	

Date Prepared: 08/28/2018

Preparation Method: EPA 3545 A

Date Analyzed: 08/29/2018

Analytical Method: EPA 8082 A

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:20	Sample ID: Area 7 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-18 % Solid:93.32
Matrix: Soil	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Arsenic	08/28/2018	EPA 6010 C	1.69	4.54	mg/kg dry	
Barium	08/28/2018	EPA 6010 C	1.69	21.5	mg/kg dry	
Beryllium	08/28/2018	EPA 6010 C	1.69	<1.69	mg/kg dry	
Cadmium	08/28/2018	EPA 6010 C	1.69	<1.69	mg/kg dry	
Chromium	08/28/2018	EPA 6010 C	1.69	8.68	mg/kg dry	
Copper	08/28/2018	EPA 6010 C	1.69	12.9	mg/kg dry	
Lead	08/28/2018	EPA 6010 C	1.69	19.5	mg/kg dry	
Manganese	08/28/2018	EPA 6010 C	1.69	122	mg/kg dry	
Nickel	08/28/2018	EPA 6010 C	1.69	7.15	mg/kg dry	
Selenium	08/28/2018	EPA 6010 C	1.69	<1.69	mg/kg dry	
Silver	08/28/2018	EPA 6010 C	1.69	<1.69	mg/kg dry	
Zinc	08/28/2018	EPA 6010 C	1.69	32.3	mg/kg dry	

Date Prepared: 08/27/2018 Preparation Method: EPA 3050B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Hexavalent Chromium	08/31/2018	EPA 7196 A	0.510	<0.510	mg/kg dry	

Date Prepared: 08/30/2018 Preparation Method: EPA 3060A

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	08/30/2018	EPA 7471 B	0.02	0.04	mg/kg dry	

Date Prepared: 08/27/2018 Preparation Method: EPA 7471 B

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Cyanide	09/07/2018	EPA 9014	0.21	<0.21	mg/kg dry	

Date Prepared: 09/05/2018 Preparation Method: Distillation Prep

Client: Nelson, Pope & Voorhis	Client ID: Roadwork Ahead
Date (Time) Collected: 08/22/2018 10:20	Sample ID: Area 7 TP-2
Date (Time) Received: 08/22/2018 14:07	Laboratory ID: 8082210-18 % Solid:93.32
Matrix: Soil	ELAP: #11693

Asbestos Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Color	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	0.0		Ca
No Asbestos Detected	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	ND	%	
Organic Matter	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	
Quartz	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	80	%	
Silicates	08/31/2018 09:59	Item 198.1 of NYS DOH Manual	NA	10	%	

Date Prepared: 08/24/2018

Preparation Method: No Preparation

Data Qualifiers Key Reference:

3.A	Reporting limit raised due to matrix interference.
3.E	Compound reported at a dilution factor.
3.H	Sample has turbidity, but no color change.
4.C	Target compound found in blank.
4.D	Surrogate recovery has failed low.
4.F	Spike recovery does not meet QC criteria due to high target compound concentration.
4.G	Spike recovery out of range due to matrix interference.
4.J	Continuing Calibration Verification (CCV) quality control levels failed low, values are considered to be estimated.
4.T	Sample Matrix Spike/Spike Dup RPD is above acceptable range.
C	Beige
Ca	Brown
Cb	Brown gray
MDL	Minimum Detection Limit
LOQ	Limit of Quantitation

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS
NPV
572 WALT WHITMAN RD,
MELVILLE, NY 11747

CONTACT: EARL ARNESEN
PHONE: (31-427-5665
EMAIL:

PROJECT LOCATION:
ROADWORK AHEAD

SAMPLER (SIGNATURE): Eric C
SAMPLER NAME (PRINT): EARL ARNESEN

SAMPLE(S) SEALED: YES / NO
CORRECT CONTAINER(S): YES / NO

8082210

SAMPLES RECEIVED AT: 1.3 °C

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # / LOCATION	ANALYSIS REQUIRED: Asbestos					# OF CONTAINERS
									Part 375 SVOC	Part 375 Metals	Part 375 Pesticides	Part 375 PCBs	Asbestos	
1. 8082241-01	S	C	–	–	ICE	8/22/18	7:27	AREA 1 NORTH	X	X	X	X	X	2
2. 02	S	C	–	–			7:43	AREA 1 SOUTH	X	X	X	X	X	2
3. 03	S	C	–	–			10:50	AREA 2 NE	X	X	X	X	X	2
4. 04	S	C	–	–			11:26	AREA 2 NW	X	X	X	X	X	2
5. 05	S	C	–	–			11:15	AREA 2 SW	X	X	X	X	X	2
6. 06	S	C	–	–			11:06	AREA 2 SE	X	X	X	X	X	2
7. 07	S	C	–	–			7:54	AREA 3	X	X	X	X	X	2
8. 08	S	C	–	–			8:11	AREA 4	X	X	X	X	X	2
9. 09	S	C	–	–			10:25	AREA 5 NORTH	X	X	X	X	X	2
10. 10	S	C	–	–			8:54	AREA 5 SOUTH	X	X	X	X	X	2
11. 11	S	G	–	–			8:44	AREA 6 TP-1	X	X	X	X	X	2
12. 12	S	G	–	–			8:57	AREA 6 TP-2	X	X	X	X	X	2
13. 13	S	G	–	–			9:12	AREA 6 TP-3	X	X	X	X	X	2
14. 14	S	G	–	–			9:22	AREA 6 TP-4	X	X	X	X	X	2

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_3O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: ☒ NORMAL ☐ STAT
BY / /

COMMENTS / INSTRUCTIONS

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY (SIGNATURE)	DATE / TIME	PRINTED NAME
Eric C	8/22/18 1:48	EARL ARNESEN		8-22-18 1:48P	BEN LAMBERSON
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY SAMPLE CUSTODIAN	DATE / TIME	PRINTED NAME
				8-22-18 2:09P	Ben Lamberson

WHITE - OFFICE / CANARY - CLIENT

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: NPV, 572 WALT WHITMAN RD., MELVILLE, NY 11747	CONTACT: ERIC AMBERSEN	SAMPLER (SIGNATURE): Eric C	SAMPLE(S) SEALED: YES / NO
	PHONE: 631-427-5665	SAMPLER NAME (PRINT): ERIC AMBERSEN	CORRECT CONTAINER(S): YES / NO
PROJECT LOCATION: ROADWORK ALISAD	EMAIL:	SAMPLES RECEIVED AT: 1.3 °C	8082210

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # / LOCATION	ANALYSIS REQUIRED: Part 375 SVOC	Part 375 Metals	Part 375 Pesticides	Part 375 PCBs	Asbestos	# OF CONTAINERS
1. 8082210-15	S	G	–	–	ICE	8/22/18	9:35	AOC 6 TP-5	X	X	X	X	X	2
2. 16	S	G	–	–	↓	↓	10:00	AOC 6 TP-6	X	X	X	X	X	2
3. 17	S	G	–	–	↓	↓	10:10	AOC 7 TP-1	X	X	X	X	X	2
4. 18	S	G	–	–	↓	↓	10:20	AOC 7 TP-2	X	X	X	X	X	2
5.														
6.														
7.														
8.														
9.														
10.														
11.														
12.														
13.														
14.														

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_3O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: ☒ NORMAL ☐ STAT
BY / /

COMMENTS / INSTRUCTIONS

RELINQUISHED BY (SIGNATURE): Eric C	DATE: 8/22/18 TIME: 1:48	PRINTED NAME: ERIC AMBERSEN	RECEIVED BY (SIGNATURE):	DATE: 8-22-18 TIME: 1485	PRINTED NAME: ERIC AMBERSEN
RELINQUISHED BY (SIGNATURE):	DATE: TIME:	PRINTED NAME:	RECEIVED BY SAMPLE CUSTODIAN:	DATE: 8-22-18 TIME: 2045	PRINTED NAME: Ben Lamberson

WHITE - OFFICE / CANARY - CLIENT

APPENDIX E

NYSDEC ELECTRONIC CORRESPONDENCE SEPTEMBER 20, 2018

Eric Arnesen

From: Romero, Nicholas A (DEC) <Nicholas.Romero@dec.ny.gov>
Sent: Thursday, September 20, 2018 3:55 PM
To: Eric Arnesen
Cc: Wade, James (DEC); Rahman, Syed (DEC); Schindler, Susan H (DEC)
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton
Attachments: Roadwork Ahead Analytical Results Tables.pdf; Site Characterization Work Plan_cjv.pdf; 2018-03-21_Roadwork_Ahead_Luigi_Stasi.2018-03-21.Order.pdf

Hi Eric,

On August 8, 2018, Analytical Samples were collected from the Site located at 1792 Middle Road, Calverton NY, from several areas and solid waste stockpiles of concern, outlined and approved in the July 16, 2018 Site Characterization Work Plan (attached) prepared by Nelson, Pope, and Voorhis, LLC (NP&V), in accordance with Order on Consent No. R1-20171027-245 (attached). Test Pits were also dug in several areas along the access road material entering from Manor Road. The Department has completed its review of the analytical lab results and the summary table provided (attached) by NP&V, and has the following comments:

1. Area #1 – Sand Stockpile – Approximately 1,500 cy – Results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and as such, may be beneficially re-used, or disposed of at an authorized Solid Waste Management Facility

2. Area #2 – Soil Stockpile – Approximately 4,000 cy – Results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). The soil stockpiled in Area #2 may be beneficially re-used as General Fill, or disposed of at an authorized SWMF.

3. Area #3 – Soil comingled with C&D debris – 3 Piles approximately 70 cy total – Results show no exceedances of Part 375 Residential or Protection of Groundwater standards, however the soil is comingled with C&D debris. The material in Area #3 may be processed on-site prior to beneficial re-use or disposal at an authorized SWMF.

4. Area #4 – Soil Stockpile – Approximately 750 cy - Results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). The soil stockpiled in Area #4 may be beneficially re-used as General Fill, or disposed of at an authorized SWMF.

5. Area #5 – Soil Stockpile – Approximately 1,500 cy - Results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). The soil stockpiled in Area #5 may be beneficially re-used as General Fill, or disposed of at an authorized SWMF.

6. Areas #6 and #7 – Access Roadway – On August 8, 2018, Test Pits were dug to determine the extent and content of the material used in construction of the access road. It was determined that approximately 1 to 2 feet of material consisting of soil comingled with crushed concrete, asphalt, rock, and brick was used in these roadways. Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards.
    a. The material used in the stabilized access road areas may remain in-place.

7. Area north of pool, materials stockpiled along the fence – two piles of C&D debris, approximately 50 cubic yards of concrete, asphalt, rock, brick, soil, and tree debris. This material may be processed on-site prior to beneficial re-use or disposal at an authorized SWMF.

8. Concrete Stockpiles located in-between Areas #4 and #5 – Approximately 800 cubic yards of unprocessed concrete, the other half of this pile is mixed with soil – This material may be processed on-site prior to disposal at an authorized SWMF or beneficial re-use.

9. Stockpiles of crushed concrete, asphalt, rock, and brick – these material stockpiles located at the north end of the property, near the main entrance, are contaminated with wood debris and other miscellaneous C&D debris such as tile, plastics, foams, and metals, among other solid wastes.
    a. These materials do not meet any pre-determined beneficial uses as outlined in part 360.12 or part 360.13(f), and as such, are defined as C&D debris and must be disposed of at an authorized SWMF.

10. Asphalt stockpile located near center of the property – approximately 120 cy of unprocessed asphalt and millings – must be disposed of at a properly authorized SWMF.

The Site Remediation and Cleanup Plan to be submitted should reflect these requirements, as well as the Compliance Schedule requirements outlined in the Order on Consent. Upon Department approval of the Cleanup Plan, the Respondents should follow the 120 day cleanup requirement as outlined in the Schedule.

Feel free to contact me at 631-444-0373 or email for any questions or concerns.

Regards,

Nick

Nick Romero
Environmental Engineer, Division of Materials Management

New York State Department of Environmental Conservation
50 Circle Road, Stony Brook, NY 11790
P: (631) 444-0375 | F: (631) 444-0231 | Nicholas.Romero@dec.ny.gov
www.dec.ny.gov | |

From: Eric Arnesen [mailto:EArnesen@nelsonpope.com]
Sent: Monday, September 10, 2018 2:18 PM
To: Romero, Nicholas A (DEC) <Nicholas.Romero@dec.ny.gov>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Nick,

I have received the analytical data for the samples collected at the above referenced site as per the required scope of work. I have attached draft table summarizing the results as well as the analytical data sheets for your review. I have also included the work plan which has the area location figure.

A review of the results finds that all of the detected compounds were below the Part 375 Protection of Groundwater and Residential Use Soil Cleanup Objectives.

APPENDIX C-3
E-MAIL FROM NYSDEC REGARDING REMEDIATION PLAN AND CLEAN-UP

Division of Materials Management
11/5/2018

Phil Malicki

From:	Romero, Nicholas A (DEC) <Nicholas.Romero@dec.ny.gov>
Sent:	Monday, November 05, 2018 12:27 PM
To:	Eric Arnesen
Cc:	Steve Mcginn; Wade, James (DEC); Rahman, Syed (DEC); Spies, Chris G (DEC); Schindler, Susan H (DEC)
Subject:	RE: Roadwork Ahead 1792 Middle Road Calverton
Attachments:	Site Characterization Report.pdf

Hi Eric,

The Department has completed its review of your September 26, 2018 Site Characterization Report and Remediation Plan (attached) prepared on behalf of Roadwork Ahead Inc. Order on Consent No. R1-20171027-245 for the property located at 1792 Middle Road Calverton, NY 11933, and has the following comments:

1. The material **stockpiles of comingled C&D debris** located at the northeast portion of the Site, near the main entrance road from Manor Road, **must be properly removed from the site prior to additional site remediation activity**. Disposal location(s) must be authorized by the Department prior to any removal from the Site.

2. All solid waste materials, both processed and unprocessed (everything on the site), must be removed from the site within 120 days (March 5, 2019) of this approval of the Remediation Plan.

3. All material stockpiles on-site are not authorized to remain stockpiled on-site unless the property owners apply for and receive a Part 360 authorization.
    a. If the respondents wish to apply for a Part 360 Permit or Registration (the Department would require a permit) to operate a Solid Waste Management Facility, they may do so.
        i. The property must be appropriately zoned, authorized, and abide by any other applicable codes by the Town as well.

Upon compliance with the above comments, the Department approves the September 26, 2018 Site Characterization Report and Remediation Plan prepared by NP&V on behalf of Roadwork Ahead Order on Consent No. R1-20171027-245 for the property located at 1792 Middle Road Calverton, NY 11933. If you have any questions or comments please feel free to contact me via email or call at 631-444-0373.

Regards,

Nick

Nick Romero
Environmental Engineer, Division of Materials Management

New York State Department of Environmental Conservation
50 Circle Road, Stony Brook, NY 11790
P: (631) 444-0375 | F: (631) 444-0231 | Nicholas.Romero@dec.ny.gov
www.dec.ny.gov |

From: Eric Arnesen [mailto:EArnesen@nelsonpope.com]
Sent: Wednesday, October 03, 2018 10:06 AM

To: Romero, Nicholas A (DEC) <Nicholas.Romero@dec.ny.gov>
Cc: Steve Mcginn <SMcginn@nelsonpope.com>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Nick,

Attached please find the Site Characterization Report and Remediation Plan prepared for the above referenced property.

Please let me know if you have any questions or comments.

I will also forward a hard copy as well.

Very truly yours,

Eric C. Arnesen, LPG
Project Manager/Hydrogeologist
Division of Phase I/II Site Assessments & Remediation

Nelson, Pope & Voorhis, LLC
ENVIRONMENTAL * PLANNING * CONSULTING
572 Walt Whitman Road
Melville, NY 11747
ph: (631) 427-5665 ex. 207
fax: (631) 427-5620
earnesen@nelsonpopevoorhis.com

Please consider the environment before you print this e-mail or any attachments

From: Romero, Nicholas A (DEC) [mailto:Nicholas.Romero@dec.ny.gov]
Sent: Thursday, September 20, 2018 3:55 PM
To: Eric Arnesen <EArnesen@nelsonpope.com>
Cc: Wade, James (DEC) <james.wade@dec.ny.gov>; Rahman, Syed (DEC) <syed.rahman@dec.ny.gov>; Schindler, Susan H (DEC) <susan.schindler@dec.ny.gov>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

Hi Eric,

On August 8, 2018, Analytical Samples were collected from the Site located at 1792 Middle Road, Calverton NY, from several areas and solid waste stockpiles of concern, outlined and approved in the July 16, 2018 Site Characterization Work Plan (attached) prepared by Nelson, Pope, and Voorhis, LLC (NP&V), in accordance with Order on Consent No. R1-20171027-245 (attached). Test Pits were also dug in several areas along the access road material entering from Manor Road. The Department has completed its review of the analytical lab results and the summary table provided (attached) by NP&V, and has the following comments:

1. Area #1 – Sand Stockpile – Approximately 1,500 cy – Results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and as such, may be beneficially re-used, or disposed of at an authorized Solid Waste Management Facility

2. Area #2 – Soil Stockpile – Approximately 4,000 cy – Results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). The soil stockpiled in Area #2 may be beneficially re-used as General Fill, or disposed of at an authorized SWMF.

3. Area #3 – Soil comingled with C&D debris – 3 Piles approximately 70 cy total – Results show no exceedances of Part 375 Residential or Protection of Groundwater standards, however the soil is comingled with C&D debris. The material in Area #3 may be processed on-site prior to beneficial re-use or disposal at an authorized SWMF.

4. Area #4 – Soil Stockpile – Approximately 750 cy - Results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). The soil stockpiled in Area #4 may be beneficially re-used as General Fill, or disposed of at an authorized SWMF.

5. Area #5 – Soil Stockpile – Approximately 1,500 cy - Results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). The soil stockpiled in Area #5 may be beneficially re-used as General Fill, or disposed of at an authorized SWMF.

6. Areas #6 and #7 – Access Roadway – On August 8, 2018, Test Pits were dug to determine the extent and content of the material used in construction of the access road. It was determined that approximately 1 to 2 feet of material consisting of soil comingled with crushed concrete, asphalt, rock, and brick was used in these roadways. Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards.
    a. The material used in the stabilized access road areas may remain in-place.

7. Area north of pool, materials stockpiled along the fence – two piles of C&D debris, approximately 50 cubic yards of concrete, asphalt, rock, brick, soil, and tree debris. This material may be processed on-site prior to beneficial re-use or disposal at an authorized SWMF.

8. Concrete Stockpiles located in-between Areas #4 and #5 – Approximately 800 cubic yards of unprocessed concrete, the other half of this pile is mixed with soil – This material may be processed on-site prior to disposal at an authorized SWMF or beneficial re-use.

9. Stockpiles of crushed concrete, asphalt, rock, and brick – these material stockpiles located at the north end of the property, near the main entrance, are contaminated with wood debris and other miscellaneous C&D debris such as tile, plastics, foams, and metals, among other solid wastes.
    a. These materials do not meet any pre-determined beneficial uses as outlined in part 360.12 or part 360.13(f), and as such, are defined as C&D debris and must be disposed of at an authorized SWMF.

10. Asphalt stockpile located near center of the property – approximately 120 cy of unprocessed asphalt and millings – must be disposed of at a properly authorized SWMF.

The Site Remediation and Cleanup Plan to be submitted should reflect these requirements, as well as the Compliance Schedule requirements outlined in the Order on Consent. Upon Department approval of the Cleanup Plan, the Respondents should follow the 120 day cleanup requirement as outlined in the Schedule.

Feel free to contact me at 631-444-0373 or email for any questions or concerns.

Regards,

Nick

Nick Romero
Environmental Engineer, Division of Materials Management

New York State Department of Environmental Conservation
50 Circle Road, Stony Brook, NY 11790
P: (631) 444-0375 | F: (631) 444-0231 | Nicholas.Romero@dec.ny.gov
www.dec.ny.gov |

From: Eric Arnesen [mailto:EArnesen@nelsonpope.com]
Sent: Monday, September 10, 2018 2:18 PM
To: Romero, Nicholas A (DEC) <Nicholas.Romero@dec.ny.gov>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

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Nick,

I have received the analytical data for the samples collected at the above referenced site as per the required scope of work. I have attached draft table summarizing the results as well as the analytical data sheets for your review. I have also included the work plan which has the area location figure.

A review of the results finds that all of the detected compounds were below the Part 375 Protection of Groundwater and Residential Use Soil Cleanup Objectives.

I will be preparing a report shortly but if you have any comments or required courses of action to include please let me know so as to stream line the review process.

Thanks

Eric C. Arnesen, LPG
Project Manager/Hydrogeologist
Division of Phase I/II Site Assessments & Remediation

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Melville, NY 11747
ph: (631) 427-5665 ex. 207
fax: (631) 427-5620
earnesen@nelsonpopevoorhis.com

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From: Romero, Nicholas A (DEC) [mailto:Nicholas.Romero@dec.ny.gov]
Sent: Thursday, August 16, 2018 4:02 PM
To: Eric Arnesen <EArnesen@nelsonpope.com>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

Earlier for you is fine

Nick Romero
Environmental Engineer, Division of Materials Management

New York State Department of Environmental Conservation
50 Circle Road, Stony Brook, NY 11790
P: (631) 444-0375 | F: (631) 444-0231 | Nicholas.Romero@dec.ny.gov
www.dec.ny.gov |

From: Eric Arnesen [mailto:EArnesen@nelsonpope.com]
Sent: Thursday, August 16, 2018 4:00 PM
To: Romero, Nicholas A (DEC) <Nicholas.Romero@dec.ny.gov>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

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Yes that would be fine. Is it OK if I get there earlier to begin work or do you need to oversee all activities?

Eric C. Arnesen, LPG
Project Manager/Hydrogeologist
Division of Phase I/II Site Assessments & Remediation

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fax: (631) 427-5620
earnesen@nelsonpopevoorhis.com

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From: Romero, Nicholas A (DEC) [mailto:Nicholas.Romero@dec.ny.gov]
Sent: Thursday, August 16, 2018 3:58 PM
To: Eric Arnesen <EArnesen@nelsonpope.com>
Cc: Wade, James (DEC) <james.wade@dec.ny.gov>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

Yes that sounds good, around 10:30 to meet?

Nick

Nick Romero
Environmental Engineer, Division of Materials Management

New York State Department of Environmental Conservation
50 Circle Road, Stony Brook, NY 11790
P: (631) 444-0375 | F: (631) 444-0231 | Nicholas.Romero@dec.ny.gov
www.dec.ny.gov |

From: Eric Arnesen [mailto:EArnesen@nelsonpope.com]
Sent: Thursday, August 16, 2018 3:21 PM
To: Romero, Nicholas A (DEC) <Nicholas.Romero@dec.ny.gov>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

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Nick,

I've gotten my approved contract. Can we set it up for Wednesday August 22nd?

Thanks

Eric C. Arnesen, LPG
Project Manager/Hydrogeologist
Division of Phase I/II Site Assessments & Remediation

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earnesen@nelsonpopevoorhis.com

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From: Romero, Nicholas A (DEC) [mailto:Nicholas.Romero@dec.ny.gov]
Sent: Thursday, August 16, 2018 1:07 PM
To: Eric Arnesen <EArnesen@nelsonpope.com>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

Eric,

I apologize I haven't gotten back to you sooner – I'm free for next week anytime to schedule a sampling time, whenever works best for you and the lab should also be OK for me.

Nick

Nick Romero
Environmental Engineer, Division of Materials Management

New York State Department of Environmental Conservation
50 Circle Road, Stony Brook, NY 11790
P: (631) 444-0375 | F: (631) 444-0231 | Nicholas.Romero@dec.ny.gov
www.dec.ny.gov |

From: Eric Arnesen [mailto:EArnesen@nelsonpope.com]
Sent: Friday, August 10, 2018 4:05 PM
To: Romero, Nicholas A (DEC) <Nicholas.Romero@dec.ny.gov>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

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Nick,

I would like to schedule the sampling for the above referenced site sometime next week. When you get a chance can you please let me know what dates might work for you next week and the following week.

Thanks

Eric C. Arnesen, LPG
Project Manager/Hydrogeologist
Division of Phase I/II Site Assessments & Remediation

Nelson, Pope & Voorhis, LLC
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ph: (631) 427-5665 ex. 207
fax: (631) 427-5620
earnesen@nelsonpopevoorhis.com

Please consider the environment before you print this e-mail or any attachments

From: Romero, Nicholas A (DEC) [mailto:Nicholas.Romero@dec.ny.gov]
Sent: Tuesday, July 24, 2018 4:22 PM
To: Eric Arnesen <EArnesen@nelsonpope.com>
Cc: Wade, James (DEC) <james.wade@dec.ny.gov>; Hrvoje Marnika <HMarnika@nelsonpope.com>; Schindler, Susan H (DEC) <susan.schindler@dec.ny.gov>; Steven Losquadro (losquadrolaw@gmail.com) <losquadrolaw@gmail.com>
Subject: RE: Roadwork Ahead 1792 Middle Road Calverton

Hi Eric,

The Department has reviewed the Site Characterization Work Plan (attached) dated July 16, 2018 submitted by Nelson, Pope & Voorhis, LLC on behalf of Road Work Ahead, Inc. and Luigi Stasi (Order on Consent # R1-20171027-245). The Department approves the implementation of this Plan at the site located at 1792 Middle Road in Calverton NY.

The Characterization Plan is approved with the condition that a Cleanup Plan be submitted within 30 days of receipt of all analytical results for materials stockpiled at the Site. The Cleanup Plan must address the provisions outlined in the Order on Consent requiring removal of unauthorized materials and remediation of the Site.

The next step would be scheduling a day for chemical sample collections and/or test pits. I'll be available most days of the week, just let me know when the Respondents are able to mobilize. My desk phone is 631-444-0373.

Regards,

Nick

Nick Romero
Environmental Engineer, Division of Materials Management

New York State Department of Environmental Conservation
50 Circle Road, Stony Brook, NY 11790
P: (631) 444-0375 | F: (631) 444-0231 | Nicholas.Romero@dec.ny.gov
www.dec.ny.gov |

From: Eric Arnesen [mailto:EArnesen@nelsonpope.com]
Sent: Wednesday, July 18, 2018 1:25 PM
To: Romero, Nicholas A (DEC) <Nicholas.Romero@dec.ny.gov>; Wade, James (DEC) <james.wade@dec.ny.gov>
Subject: Roadwork Ahead 1792 Middle Road Calverton

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Nick & Jim,

Attached please find the site characterization work plan prepared for the above referenced property. The work plan outlines the activities required to sample the soil piles and grade adjustment fill areas located on the subject property.

When you get an opportunity please review the document and provide any comments that you may have so I can revise accordingly.

I will also send out hard copies as well.

Very truly yours,

Eric C. Arnesen, LPG
Project Manager/Hydrogeologist
Division of Phase I/II Site Assessments & Remediation

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earnesen@nelsonpopevoorhis.com

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APPENDIX C-4
PART 360 APPLICATION TO NYSDEC, Signature Pages

Nelson Pope Voorhis
August 11, 2021

(10/17)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEPARTMENT USE ONLY
DEC APPLICATION NO.
ACTIVITY NUMBER(S)

Division of Materials Management

APPLICATION FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

Please read all instructions before completing this application

Reset Form

Please **TYPE** or **PRINT** clearly

1. APPLICATION TYPE (CHECK ALL APPLICABLE BOXES):
- [X] Initial (New)
- [ ] Renewal
- [ ] Subsequent Landfill Stage (New)
- [ ] Modification

2. APPLICANT IS:
- [X] Facility Owner
- [ ] Facility Operator

3. IS APPLICATION FILED BY OR ON BEHALF OF A MUNICIPALITY? [ ] Yes [X] No
If Yes, Name:

4. FACILITY OWNER'S INFORMATION
Name: Luisa Stasi
Address: 2186 Kirby Lane
City: Syosset
State/Zip: NY 11791 Phone: 516-659-2470
Email: fstasi@rwany.com

5. FACILITY OPERATOR'S INFORMATION
Name: Luisa Stasi
Address: 2186 Kirby Lane
City: Syosset
State/Zip: NY 11791 Phone: 516-659-2470
Email: fstasi@rwany.com

6. ENGINEER'S INFORMATION
Name: Thomas Lembo, PE
NY License #: 074701 Phone: (631) 427-5665
Firm Name: Nelson & Pope, PLLC
Address: 572 Walt Whitman Road
Email: tlembo@nelsonpope.com

7. FACILITY NAME AND LOCATION (Attach USGS Topo Map showing exact location)
Name: Breezy Hill Group VI, LLC
Street: 1792 Middle Road
City/State/Zip: Calverton, New York 11933
Town: Riverhead County: Suffolk
Coordinates: NYTM--E NYTM--N

8. SITE OWNER'S INFORMATION
Name: Luisa Stasi
Address: 2186 Kirby Lane
City/Town: Syosset
State/Zip: NY 11791 Phone: 516-659-2470
Email: fstasi@rwany.com

9. TYPE OF FACILITY (Check all applicable boxes)
- [ ] Combustion & Thermal Treatment (362-1)
- [X] C & D Debris Handling & Recovery (361-5)
- [ ] Composting & Other Organics Processing (361-3)
- [ ] Household Hazardous Waste Collection (362-4)
- [ ] Land Application & Associated Storage (361-2)
- [ ] Landfill (363)
- [ ] Regulated Medical Waste (365)
- [ ] Mulch Processing (361-4)
- [ ] Municipal Solid Waste Processing (362-2)
- [ ] Navigational Dredge Mat. H'lding & Recovery(361-9)
- [ ] Nonspecific Facilities (360.17)
- [ ] Recyclables Handling & Recovery (361-1)
- [ ] Research, Development, and Demonstration (360.18)
- [ ] Transfer (362-3)
- [ ] Waste Oil (374-2)
- [ ] Waste Tire Handling & Recovery (361-6)
- [ ] Used Cooking Oil & Yellow Grease (361-8)

10. NAME(S) OF ALL MUNICIPALITIES SERVED:
Nassau County
Suffolk County

11. SOLID WASTES ACCEPTED:
Identify facility capacity and throughput of each waste type, as applicable

Facility Capacity:
C&D Material - Brick, Dirt, Asphalt, Rock & Concrete: 13,000 CY capacity
Finished Product - RCA: 13,000 CY capacity (7,000 CY Processed RCA; 5,000 CY Processed Soil; and 1,000 CY Asphalt Millings)
Daily Throughput:
~300 CY/day of unprocessed concrete, brick, rock, asphalt and fill; ~500 CY/day processed RCA; ~200 CY/day asphalt millings; and ~300 CY/day processed soil

12. FACILITY SIZE
a. Facility size proposed (acres): 5.56
b. Total site area (acres): 6.68
c. Landfill only: Facility size ultimately planned (acres):
d. Existing landfill area on this site and adjacent properties (acres):
e. Landfill only: Ultimate facility height above ground level (feet):

13. IS A VARIANCE REQUESTED FROM ANY PROVISION OF 6 NYCRR PART 360?
[ ] Yes [X] No If yes, cite specific provision(s):

14. CERTIFICATION: [X] Corporation [ ] Partnership [ ] Sole Proprietorship [ ] Municipality

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits was prepared by me or under my supervision and direction and is true to the best of my knowledge and belief, and that I have authority or am authorized as

(title) Owner of (entity) Breezy Hill Group VI, LLC

to sign this application pursuant to 6 NYCRR Part 360. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Date 8/13/2021 Signature Luisa Stasi Print Name Luisa Stasi

Instructions for the completion of an Application for a Solid Waste Management Facility Permit

General

This application form is prescribed by the New York State Department of Environmental Conservation (DEC) for solid waste management facilities pursuant to the requirements of 6 NYCRR Parts 360, 361, 362, 363, 365, and 621. In order to be determined complete, the application must satisfy the requirements established in Subparts 621.3 and 621.4 and the plans, reports, and other supporting information required by Parts 360, 361, 362, 363, 365. Applicants should make every effort to enter the information requested in the spaces provided on this form **but may attach additional sheets where space prohibits full and complete answers.** For the purposes of this form, the term "facility" shall mean "solid waste management facility."

Submit all application materials to the Regional Permit Administrator for the DEC region in which the facility is located, or is proposed to be located. See Part 621 Appendix 1. **Note: The applicant should retain a copy of the completed application form.**

Item Number

1 Check all boxes that pertain to the type of permit sought.
An initial permit is the first permit the owner or operator receives for the facility. See 360.16
A permit renewal is used when intending to construct or operate beyond the current permit period. See 360.16(g) and 621.13
A permit modification is used for any change or amendment whatsoever to a current permit. See 360.16(f), and 621.13

2 Check the box that describes the applicant's affiliation with the facility. The applicant must either be the owner of the facility or the entity or person responsible for the overall operation of the facility. See 360.2(b)(13)

3 If the application is submitted by or on behalf of a municipality, enter the name of the municipality. See 360.2(b)(179) and (180)

4 Identify the entity or person who owns the facility. See definition of "person", 360.2(b)(198)

5 Identify the entity or person responsible for the overall management and operation of the facility.

6 Identify the individual licensed to practice engineering in the State of New York who is responsible for the design of the facility, and the preparation and certification of any supporting information required to be submitted with this application. Include the name of the firm which employs the engineer, where applicable. See 360.6 and 621.3(a)(1).

7 Enter the name and address of the facility. Attach a USGS Topographic Map, or copy of one, showing the exact location of the facility.

8 Identify the entity or person who owns the site on which the facility is situated, or who will own the site on which the proposed facility will be situated. See 360.2(b). For new applications, written permission from the owner(s) of land which the facility is to be located is required 360.16(c)(1)(iii).

9 Check the box that most closely describes the facility that is the subject of this application. For combination facilities check all applicable boxes.
For Research, Development and Demonstration permits and Nonspecific permits, see 360.18 and 360.17, respectively.

10 Enter the name of all municipalities in the existing and/or proposed service area of the facility. See 360.2(b)(246) and 360.16(c)(5) & (d).

11 Enter the specific wastes to be accepted at the facility.

11a If applying for a permit renewal or modification, enter the new or existing "approved design capacity" from the current permit. See 360.2(b)(14)

11b For initial permit and permit modification applications, enter the proposed "approved design capacity." See 360.2(b)(14) and (15). Generally, units must be expressed as tons per day, except that waste oil must be in gallons, waste tires must be number of tires, and land application and composting must be dry tons per day.

12a Enter the area proposed to be occupied by the facility, not including access roads, appurtenances, and land buffer areas. See 360.2(b)(101)

12b Enter the area of the contiguous property on which the facility is situated, including the area of the facility, access roads, appurtenances, land buffer and unused areas.

12c For facilities that are to be developed in stages, enter the total facility area that is ultimately proposed, inclusive of all stages.

12d For landfills, enter any existing landfill area on the site and on adjacent properties that were subdivided from this site within the previous five years.

12e Enter the height of the highest point of the proposed facility as measured from existing ground level.

13 Identify all provisions of Part 360 from which a variance is sought. The variance request must satisfy the requirements of 360.10 and 621.3(a)(5). Attach documentation as necessary. A variance request that is submitted on behalf of a facility with a current permit must be submitted as an application for a permit modification.

14 The certification block must be completed by the applicant. See 360.16(a) and 621.3(a)(2).

47-19-2A (8/20)-10e

DEPARTMENT USE ONLY

DEC APPLICATION NUMBER:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

RECORD OF COMPLIANCE-Permit Application Supplement

Please read all instructions on reverse side before completing this application

1. FULL NAME OF APPLICANT

Breezy Hill Group VI, LLC

2. MAILING ADDRESS (Principal Place of Business) Street	3. NEW YORK STATE MAILING ADDRESS (If different) Street
2186 Kirby Lane	
City/State/Zip Code	City/State/Zip Code
Syosset, New York 11791	

4. TYPE OF ORGANIZATION ☐ Individual ☐ Partnership ☐ Company ☐ Corporation ☑ Other LLC

If other than individual, provide Federal Taxpayer ID Number

5. Does the applicant currently hold any permit issued under the Environmental Conservation Law?

☐ Yes ☑ No

6. a. Has the applicant been denied a permit or has the applicant had a permit revoked or suspended under the Environmental Conservation Law? or
b. Is the applicant currently the subject of an enforcement action under the Environmental Conservation Law?

a. ☐ Yes ☑ No b. ☐ Yes ☑ No

7. If any answer to questions 5, 6(a), or 6(b) is YES, provide details on a separate page and attach it to this form.

8. Has the applicant, and if the applicant is a corporation, has any officer, director, or large stockholder (owner of 25 percent or more of not publicly-traded stock) of the corporation, within the last ten (10) years, been:

a. found in an administrative, civil or criminal proceeding to have violated any provision of the Environmental Conservation Law (ECL), any related order or determination of the Commissioner, any regulation promulgated pursuant to the ECL, the condition of any permit issued thereunder, or any similar statute, regulation, order or permit condition of any other state or federal government agency?

☐ Yes ☑ No

b. an officer, director or large stockholder (owner of 25% or more of not publicly-traded stock) of a corporation which-during the time such person was an officer, director or large stockholder-was determined in an administrative, civil or criminal proceeding to have violated any provision of the Environmental Conservation Law (ECL), any related order or determination of the Commissioner, any regulation promulgated pursuant to the ECL, the condition of any permit issued thereunder, or any similar statute, regulation, order or permit condition of any other state or federal government agency?

☑ Yes ☐ No

c. convicted of a criminal offense under the laws of any state or federal government agency, which involves environmental statutes or regulations, or fraud, bribery, perjury, theft or an offense against public administration as that term is used in Article 195 of the Penal Law, or an offense involving false written statements as those terms are defined in Article 175 of the Penal Law? Out-of-state history may be limited to misdemeanors, felonies and civil penalties assessed at $25,000 or more.

☐ Yes ☑ No

d. an officer, director or large stockholder (owner of 25% or more of not publicly-traded stock) of a corporation which-during the time such person was an officer, director or large stockholder-was convicted of a criminal offense under the laws of any state or federal government agency, which involves environmental statutes or regulations or fraud, **bribery**, perjury, theft, or an offense against public administration as that term is used in Article 195 of the Penal Law, or an offense involving false written statements as those terms are defined in Article 175 of the Penal Law? Out-of- state history may be limited to misdemeanors, felonies and civil penalties assessed at $25,000 or more.

☐ Yes ☑ No

9. If any answer to questions 8a through 8d is YES, provide details on a separate page and attach it to this form.

10. Does the applicant currently owe any regulatory fees pursuant to Article 72 of the Environmental Conservation Law to the Department of Environmental Conservation?

☐ Yes, amount $ ☑ No Under dispute for year(s) Amount $

11. CERTIFICATION (By Applicant who is an **Individual**)

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Date: **Signature:** **Print Name:**

ITEMS 12 THROUGH 15 TO BE COMPLETED BY AN APPLICANT OTHER THAN AN INDIVIDUAL

12. SPECIFY UNDER WHAT LAW APPLICANT WAS ORGANIZED 13. STATE 14. DATE OF ORGANIZATION

15. CERTIFICATION (By an Applicant **Other** Than an Individual)

I hereby affirm under penalty of perjury that I am (title) of (entity); that I am authorized by that entity to make this application; that this application was prepared by me or under my supervision and direction; and that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Date: 8/13/2021 **Signature:** Luisa Stasi **Print Name:** Luisa Stasi

An Order on Consent (Ri-20171027-245) related to the subject property was issued by the New York State Department of Environmental Conservation (NYSDEC) to Roadwork Ahead, Inc. This Order was dated March 21, 2018 and required that the importation of material to the property cease and that site cleanup investigation activities be initiated to classify imported materials in accordance with NYCRR Section 360.13.

Several piles of soil, sand and comingled aggregate as well as grade adjustment fill were located throughout the property and were imported to the site without the facility maintaining an appropriate NYCRR Part 360 permit for the acceptance of this material.

Seven (7) distinct areas/piles were sampled as part of the investigation.

- Area #1 consisted of a sand pile located in the western portion of the property, south of the barn. This pile is estimated to contain approximately 1,500 cubic yards (CY) of material.
- Area #2 consisted of a large soil pile in the western end of the site which is located on the north side of the barn. This pile is estimated to contain approximately 4,000 CY of material.
- Area #3 consisted of three (3) small piles of soil mixed with C&D materials located on the east side of the site access connected to Middle Road. These piles were estimated to contain 70 CY of material.
- Area #4 is located slightly to the northeast of the three (3) piles and consists of a pile of dirt. It is estimated that this pile contains approximately 750 CY of material.
- Area #5 is located east of the access roadway connected to Manor Road and consists of an elongated pile of dirt. It is estimated that this area contains approximately 1,500 CY of material.
- Area #6 consists of a triangular grade adjustment fill area located to the west of the site access roadway connected to Manor Road. This area is triangular in shape with dimensions of 75 feet by 60 feet by 95 feet.
- Area #7 consisted of a rectangular grade adjustment fill area located east of the access roadway connected to Manor Road. This area is rectangular in shape with a dimension of 30 feet long by 20 feet wide.

In addition, there were two (2) piles of concrete aggregate that were not sampled but will be addressed as part of future mitigation activities either by removing them from the property or finding a beneficial use. Aside from the concrete and brick the aggregate, piles also contain wood and asphalt which will need to be sorted out if to be used for beneficial purposes.

Results of the investigation revealed the following.

- **Area #1 - Sand Stockpile**
  Approximately 1,500 CY - Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards. As directed by the NYSDEC, the material in Area

#1 may be beneficially re-used as general fill, or disposed of at an authorized Solid Waste Management Facility (SWMF)

- **Area #2 - Soil Stockpile**
  Approximately 4,000 CY - Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). As directed by the NYSDEC, the soil stockpiled in Area #2 may be beneficially re-used as general fill, or disposed of at an authorized SWMF.

- **Area #3 - Soil Comingled with C&D debris**
  Three (3) piles approximately 70 CY total - Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards; however, the soil is comingled with C&D debris. As directed by the NYSDEC, the material in Area #3 must be processed on-site prior to beneficial re-use or disposal at an authorized SWMF.

- **Area #4 - Soil Stockpile**
  Approximately 750 CY - Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). As directed by the NYSDEC, the soil stockpiled in Area #4 may be beneficially re-used as general fill, or disposed of at an authorized SWMF.

- **Area #5 - Soil Stockpile**
  Approximately 1,500 CY - Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards, and the material meets the definition of General Fill outlined in Part 360.13(f). As directed by the NYSDEC, the soil stockpiled in Area #5 may be beneficially re-used as general fill, or disposed of at an authorized SWMF.

- **Areas #6 and #7**
  Access Roadway - Test pits were dug to determine the extent and content of the material used in construction of the access road. It was determined that approximately 1 to 2 feet of material consisting of soil comingled with crushed concrete, asphalt, rock, and brick was used in these roadways. Analytical results show no exceedances of Part 375 Residential or Protection of Groundwater standards. As directed by the NYSDEC, the material used in the stabilized access road areas may remain in-place.

In addition to the areas investigated as part of the site characterization, four (4) additional areas were noted by the NYSDEC which did not require characterization due to their composition but do require further action. The actions required for each of these areas are summarized below.

- **Area of Materials Stockpiled Along the Fence North of Swimming Pool**
  Approximately 50 CY of material within two (2) piles of C&D debris consisting of concrete, asphalt, rock, brick, soil, and tree debris. As directed by the NYSDEC, this material may be processed on-site prior to beneficial re-use or disposal at an authorized SWMF.

- **Concrete Stockpiles Located Between Areas #4 and #5**
  Approximately 800 CY of unprocessed concrete mixed with soil. As directed by the NYSDEC, this material may be processed on-site prior to beneficial re-use or disposal at an authorized SWMF.

- **Stockpiles of Comingled Debris Located Near Main Entrance**
  Approximately 750 CY of comingled wood debris and miscellaneous C&D debris consisting of ceramic tile, plastics, foams, and metals. These materials do not meet any pre-determined beneficial uses as outlined in part 360.12 or part 360.13(f), and as a result are defined as C&D debris. As directed by the NYSDEC, this material must be disposed of at an authorized SWMF.

- **Asphalt Stockpile Located Near Center of the Property**
  Approximately 120 CY of unprocessed asphalt and millings must be disposed of at a properly authorized SWMF.

Following review of the report by the NYSDEC all material on site was required to be removed from the property unless the owners apply for and receive a Part 360 authorization. If the respondents wish to apply for a Part 360 Permit to operate a Solid Waste Management Facility, they may do so provided that the property is appropriately zoned, authorized, and abide by any other applicable codes by the Town as well.

Currently the owner is seeking to obtain a Part 360 permit to operate a C&D facility at the subject property.

NEW YORK STATE | Department of Environmental Conservation

DEPARTMENT USE ONLY	
DEC APPLICATION NO.	
ACTIVITY NUMBER(S)	

New York State Department of Environmental Conservation
RECORD OF COMPLIANCE SUPPLEMENTAL INFORMATION FORM

1. **APPLICANT NAME:** Breezy Hill VI, LLC

2. **ADDRESS:** 2186 Kirby Lane

CITY: Syosset **STATE/ZIP:** NY 11791

3. **PLEASE LIST ALL OF THE OWNERS/PARTNERS OF THE FACILITY THAT IS APPLYING FOR THE PERMIT*, INCLUDING ANY OTHER NAME THEY ARE CURRENTLY OR HAVE EVER BEEN KNOWN BY:**

4. **PLEASE LIST THE NAMES OF ALL OTHER COMPANIES THAT ARE OWNED OR PARTLY OWNED BY THE PEOPLE LISTED ABOVE**. Also list the companies that own or control or are related to the applicant company, all subsidiaries, parent companies, sister companies. Also include ADDRESSES, WEBSITE ADDRESSES, and WHAT EACH LISTED COMPANY DOES (BUSINESS FIELD, e.g., "Solid Waste Transfer" or "Cement Plant" or "Real Estate Holding Co").**

RELATED COMPANY NAME	COMPANY ADDRESS	COMPANY WEBSITE	BUSINESS FIELD

5. **CERTIFICATION BY APPLICANT: I certify that the above information is true to the best of my knowledge. I am aware that any false and/or misleading statements may be subject to prosecution under NYS Penal law.**

Signature: Luisa Stasi **Date:** 8/13/2021 **Email address:** FStasi@RWANY.com

Name (Print or type): Luisa Stasi **Title (Print or type):** Owner

* This form is applicable not only to the immediate entity but to any other corporation, partnership, association or organization in which the applicant holds or has held a substantial interest or in which it has acted as a high managerial agent or director or any other individual, corporation, partnership or organization which holds a substantial interest or the position of high managerial agent or director in the applicant.

** If the applicant company is owned by another company, corporation, partnership, association or organization, then the companies that need to be listed are all of the companies owned or controlled by the largest parent organization involved.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

OWNER'S STATEMENT

The undersigned Luisa Stasi (*property owner*) hereby swears that he/she is the owner of property located at 1792 Middle Road, Calverton, New York in the Town of Riverhead more specifically identified as Tax Map # 600-100-2-4.2, and that he/she approves of the issuance of a 6NYCRR Part 360 Solid Waste Management Facility registration to Breezy Hill Group VI, LLC to operate a Construction and Demolition Debris Handling and Recovery Fa pursuant to Subpart 360-Subpart 361-5 handling specifically Brick, Rock, Asphalt, Dirt & Concrete with a design capacity of ~1,990 tons day, storing no more than 26,000 cubic yards at any time on said property and in the event that Breezy Hill VI, LLC vacates the premises and does not properly close the facility pursuant to Part 360, then Luisa Stasi (*property owner*) will be responsible for such proper closure of the facility under Part 360.

Dated: 2/21/19 By: Luisa Stasi

STATE OF NEW YORK)
) ss.:
COUNTY OF _____)

On the 21 day of February, 2019, before me personally came Luisa Stasi to me known, who being duly sworn, deposed and said that he/she resides at 218 Kirby Ln Setauket NY 11791; that he/she is the individual described in and who executed the foregoing instrument, and he/she acknowledged to me that he/she executed same.

Barbara Ann Lewis
Notary Public, New York State
No. 01LE6009340
Commission Expires June 22 2022

Barbara Ann Lewis

APPENDIX C-5
ENGINEERING REPORT & FACILITY MAINTENANCE MANUAL (text only)

PART 360 CONSTRUCTION AND DEMOLITION DEBRIS HANDLING & RECOVERY FACILITY PERMIT APPLICATION

Nelson Pope Voorhis

May 25, 2021

PART 360 CONSTRUCTION AND DEMOLITION DEBRIS HANDLING AND RECOVERY FACILITY PERMIT APPLICATION

ENGINEERING REPORT & FACILITY OPERATION AND MAINTENANCE MANUAL

Breezy Hill Group VI, LLC
1792 Middle Road
Calverton, New York

NPV No.17060

Prepared for:
Breezy Hill Group VI, LLC
2186 Kirby Lane
Syosset, New York 11791
Attention: Sam Stasi

Prepared by:

NELSON POPE VOORHIS
environmental • land use • planning

70 Maxess Road
Melville, NY 11747
Contact: Steven J. McGinn
o: 631.427.5665 | smcginn@nelsonpopevoorhis.com

May 25, 2021

Part 360 Construction and Demolition Debris Handling and Recovery Facility Permit Application Engineering Report & Facility Operations and Maintenance Manual

Breezy Hill Group VI, LLC

Calverton, New York

THIS DOCUMENT CONTAINS 27 PAGES OF TEXT
CIRCULATION OF THIS REPORT ARE AS FOLLOWS:

Prepared For:

Breezy Hill Group VI, LLC
2186 Kirby Lane
Syosset, New York 11791
Contact: Sam Stasi

Syed H. Rahman, P.E.
New York State Department of Environmental Conservation
50 Circle Road
Stony Brook, New York 11790-3409

Prepared By:

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_____	_____	_____
Date	*Thomas F. Lembo, P.E* *Partner*	*Seal*

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NPV

Part 360 Construction and Demolition Debris Handling and Recovery Facility
Permit Application Engineering Report & Facility Operations & Maintenance Manual

Breezy Hill Group VI, LLC

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Permit Application

Part 360 Construction and Demolition Debris Handling and Recovery Facility Permit Application
Engineering Report & Facility Operations and Maintenance Manual

Breezy Hill Group VI, LLC

Calverton, New York

1.0 INTRODUCTION

This Engineering Report which includes the Facility Operations and Maintenance Manual has been prepared as part of a 6 NYCRR Part 360 Permit Application to operate a Construction and Demolition Debris (C&D) Handling and Recovery Facility at the proposed Breezy Hill Group VI, LLC facility located at 1792 Middle Road in Calverton, New York. The overall site is 6.68-acres in size and consists of a single tax parcel, identified as Suffolk County Tax Map number (SCTM no.) District 600, Section 100, Block 2, Lot 4.2. The subject property is located on the west side of Middle Road, approximately 600 feet southwest of Manor Road in the hamlet of Calverton, in the Town of Riverhead, Suffolk County, New York.

Currently, the subject property consists of an industrially zoned parcel which is occupied by a former residence and barn. The subject property is proposed to be converted to an asphalt and a concrete crushing and screening business including the conversion of the existing structures into office and storage space. The facility presently seeks to obtain a permit to allow for the processing of C&D material in accordance with the requirements outlined in under Subpart 361-5 (Construction and Demolition Debris Handling and Recovery Facilities) of 6 NYCRR Part 361.

The purpose of this report is to provide the New York State Department of Environmental Conservation (NYSDEC) Division of Materials Management with the information required in order to assess the appropriateness of issuing a Construction and Demolition Debris Processing Facility permit in relation to surrounding property uses and environmental resources as well as outlining facility protocols and procedures of operation. The information included in this document is in conformance with the provisions outlined in 6 NYCRR Part 360 Section 360.16 (Permit Application Requirements and Provisions) and Section 360.19 (Operating Requirements), as well as 6 NYCRR Part 361 Subpart 361-5(Construction and Demolition Debris Handling and Recovery Facilities).

2.0 FACILITY DESCRIPTION

2.1 LOCATION

The proposed Breezy Hill Group VI, LLC facility is located at 1792 Middle Road, Suffolk County, Town of Riverhead, Hamlet of Calverton, New York. The facility is situated on the west side of Middle Road, approximately 600 feet southwest of Manor Road. The SCTM no. is: District 600, Section 100, Block 2, Lot 4.2. The location of the subject facility is provided in **Figures 1** and **2**.

2.2 FACILITY DESCRIPTION

The approximately 5.56 acre of the 6.68 acre property is proposed to be utilized by the Breezy Hill Group VI, LLC processing facility which will engage in the processing of brick, dirt, asphalt, rock and concrete which will be used in the production of recycled concrete aggregate (RCA).

Wastes accepted at the facility consist of brick, dirt, asphalt, rock and concrete. The origin of these wastes include local demolition and construction projects. The volumes of these wastes will vary but the facility will maintain processing capability of 13,000 CY of combined materials and storage of 13,000 CY of finished materials. Details regarding existing and proposed storage volumes at the facility are provided in **Sections 5.1** and **5.2.3**, respectively.

Ingress/egress to the facility will be provided by two (2) separate site access points. The first will be located along Middle Road and will provide access to the facility office. The second will be located along Manor Road which is situated north of the facility and will lead to where deliveries are screened, stockpiled and administratively processed. Following administrative processing, materials are transported to the facility processing area and deposited in designated areas according to waste type. Upon entrance to the materials processing portion of the site, storage areas for C&D material will be located in the northern half of the site within a one-way loop driveway. **Figure 3** presents a depiction of the existing condition of the subject facility. A larger scale site plan depicting the existing condition of the subject facility is provided in a pocket at end of this document.

2.3 APPLICABLE REGULATIONS AND PLANS

The subject property is zoned Industrial A and the proposed facility would be permitted under Chapter 301, Article XXIII, Section 301-14 of the Town of Riverhead zoning code.

There are no solid waste management plans presently enacted within the jurisdiction of the subject facility or receiving facilities.

A description of the proposed Breezy Hill Group VI, LLC facilities consistency with the State solid waste management policy identified under ECL 27-0106 has been provided in accordance with 6NYCRR Part 360.16(g)(2)(ii) for an application for a C&D Processing permit.

In the interest of public health, safety and welfare and in order to conserve energy and natural resources, the state of New York, in enacting this section, establishes as its policy that:

The following are the solid waste management priorities in New York State:

(a) first, to reduce the amount of solid waste generated;
(b) second, to reuse material for the purpose for which it was originally intended or to recycle material that cannot be reused;
(c) third, to recover, in an environmentally acceptable manner, energy from solid waste that cannot be economically and technically reused or recycled; and
(d) fourth, to dispose of solid waste that is not being reused, recycled or from which energy is not being recovered, by land burial or other methods approved by the department.

The proposed Breezy Hill Group VI, LLC facility will receive a variety of construction and demolition debris generated by Breezy Hill Group VI, LLC and outside demolition contractors. This material will then be processed to create recycled concrete aggregate for reuse.

As noted, the subject facility is proposed to receive a variety of construction and demolition debris generated by Breezy Hill Group VI, LLC and outside demolition contractors. This waste material will consists of the following:

- **Unprocessed C&D Material** – Consists of a mix of concrete, dirt, brick, asphalt and rock. Estimated 13,000 CY stored on-site.
- **Processed Soil –** Consists of screened soil removed from C&D material and imported raw material. Estimated 5,000 CY stored on-site.
- **Processed RCA** - Consists of finished RCA material. Estimated 7,000 CY stored on-site.
- **Processed Asphalt Millings** – Consists of finished asphalt millings material processed from raw asphalt debris imported to site. Estimated 1,000 CY stored on-site.

The proposed Breezy Hill Group VI, LLC facility will be consistent with the provisions established in ECL-27-0106 through the processing of C&D materials imported to the site. Materials transferred from the facility may be considered recycled as described in item b. presented above. The reuse and recycling of the materials as described above will ultimately reduce the amount of solid waste generated that will require disposal at municipal landfills or by other means

Any materials deemed inappropriate for recycling or reuse as well as any unacceptable wastes not allowed under the facilities permit will be disposed of in accordance with the ECL as described in items c. and d. presented above and as specified in the Facility Manual.

3.0 ENVIRONMENTAL SETTING

3.1 TOPOGRAPHY

The general topographic trend of the subject property is from north to south. The highest elevations are located in the northeastern portion of the site and trend toward the southern end of the site at grades ranging from 3% to 5%. The northwestern portion of the property has been partially excavated down to an elevation of approximately 45 feet above msl in order to generally conform with the elevations within the southern end of the site. Side walls of the excavated areas are approximately 30% to 45%.

With regard to the properties relation to surrounding topography, the facility lies within glacial outwash plains south of the Harbor Hill Moraine that trends to the south and eventually joins with the Peconic Lake. However, the site has been subject to obvious physical alterations to the topography of the subject facility. There is no direct connection to groundwater or surface water bodies at the subject site (also see Section 3.5). The general topography of the subject property and surrounding area is provided on **Figure 4**.

3.2 SOILS

The Soil Survey of Suffolk County, conducted by the U.S. Department of Agriculture in 1975 is a useful source of soils information, which identifies soil types resulting from natural deposition and modification, as well as man-induced alterations associated with land use.

The subject property lies in an area classified as containing Haven-Riverhead association soil. These soils are classified as being deep, nearly level to gently sloping, well drained, medium textured and moderately coarse textured soils on outwash plains.

More specifically, the subject property is overlain by CpC – Carver and Plymouth sands, 3-15% slopes; HaB – Haven loam, 2-6% slopes; and RdB – Riverhead Sandy Loam, 3-8% slopes; and RdC – Riverhead Sandy Loam, 8-15% slopes The characteristics of these soil types are identified as follows **(Warner et al., 1975):**

> *Carver and Plymouth sands, 3-15% slopes (CpC) - The Carver series consists of deep, excessively drained coarse-textured soils. This soil type is found mainly on rolling moraines; however, they are also found on the side slopes of many drainage channels on the outwash plains. The hazard for erosion is slight to moderate.*
>
> *Haven loam 2-6% slopes (HaB) - The Haven series consists of deep, well drained, medium textured soils that formed in a loamy or silty mantle over stratified coarse sand and gravel. This*

soil is found on outwash plains and moraines, commonly along shallow drainage channels. The hazard of erosion is moderate to slight.

Riverhead Sandy Loam, 3-8% slopes (RdB) - The Riverhead series consist of deep, well-drained, moderately course-textured soils. These soils occur primarily on outwash plains. A few small irregular areas are on the moraines. Riverhead soils have moderate to high available moisture capacity. Internal drainage is good, with moderately rapid to very rapid permeability. Natural fertility is low.

Riverhead Sandy Loam, 8-15% slopes (RdC) - Consists of deep, excessively drained, coarse - textured soils that formed in a mantle of sandy loam or fine sandy loam over thick layers of coarse sand and gravel. This soil is found in narrow bands on outwash plains along the side slopes of deep intermittent drainageways. Hazardous of erosion is moderately severe.

Review of the soil survey also indicates that there are no significant limitations to the proposed land use related to any of these soils. The soil types overlying the subject property are illustrated in **Figure 5**.

3.3 GEOLOGY

Long Island is located within the Atlantic Coastal Plain, a physiographic province in which substantial sediment deposits overlay the base, or bedrock **(Fuller, 1914)**. The surface topography primarily reflects the glacial history of the Island and subsequent human activity.

The Bedrock underlying Long Island slopes south and east at a rate of approximately 70 feet per mile, and the overlying sediments increase in thickness toward the south **(Jensen and Soren, 1974; Smolensky, et al., 1989).**

The primary Cretaceous sediments on Long Island are the Raritan and Magothy Formations, which were deposited atop bedrock during the mid to late Cretaceous period (138 to 65 million years ago) as a result of sediment transport from highlands to the north of the Island **(Koszalka, 1984).** The Raritan Formation consists of two members: the Lloyd Sand and the Raritan Clay. The Lloyd Sand contains the Lloyd aquifer, which is separated from the overlying Magothy aquifer by the low permeability Raritan Clay **(Sutter et al., 1949; Jensen and Soren, 1974).** The Magothy Formation and Matawan Group, which form the Magothy aquifer, were deposited in the late Cretaceous (approximately 75 million years ago) following a period of erosion of the Raritan clay. The base of the Magothy is composed of coarse sand, gravel and pebbles as large as 2 inches in diameter. These coarse sediments are interbedded with fine to clayey sands and solid clays. Locally thick clay beds have been traced to spans of up to one mile.

During the Tertiary period (65 to 2 million years ago) there was erosion of Cretaceous deposits over much of Long Island due to hydrologic processes such as stream formation. Sea level was

low, and a large valley formed north of Long Island in what is now Long Island Sound. Most of the surface sediments evident on Long Island were deposited during the glacial advances of the Pleistocene epoch, Quaternary period (2 million years ago to 10,000 years ago). The Pleistocene was marked by cycles of glacial advance and subsequent retreat producing morainal and glaciofluvial (outwash) sediments on top of the Magothy Formation and Matawan Group. These Quaternary sediments, which consist of clay, silt, sand, gravel, and boulders, include both the Gardiners Clay and the Upper Glacial aquifer. The Ronkonkoma and Harbor Hills Terminal Moraines were deposited as part of this Upper Glacial deposit along the spine and the North Shore of Long Island as the glaciers retreated during the Wisconsin stage of the Late Pleistocene (approximately 25,000 to 10,000 years ago) **(Koszalka, 1984, p. 15).** Low, flat outwash plains formed southward as erosional processes carried sediments away from the moraines, and coastal processes formed barrier beaches along the south shore as sea level rose.

The upper extent of the Upper Glacial Formation corresponds with the topographic elevation of the subject property ranges from 36 feet to 56 feet above msl indicating a thickness ranging from 386 feet to 406 feet. A generalized geologic cross-section depicting the formations underlying the subject property is provided on **Figure 6 (Jensen and Soren, 1974)**.

Due to the subject properties location south of the Harbor Hill terminal moraine, subsurface materials can be characterized and glacial outwash deposits which generally consist of fine to medium sands and gravels that exhibit excellent groundwater transmitting properties which will be discussed in further detail below.

3.4 HYDROGEOLOGY

Groundwater on Long Island is derived from precipitation. Precipitation entering the soils in the form of recharge passes through the unsaturated zone to a level below which all strata are saturated. This level is referred to as the water table. In general, the groundwater table coincides with sea level on the north and south shores of Long Island, and rises in elevation toward the center of the Island. The high point of the parabola is referred to as the groundwater divide. Differences in groundwater elevation create a hydraulic gradient which causes groundwater to flow perpendicular to the contours of equal elevation, or generally toward the north and south shores from the middle of the Island **(Freeze and Cherry, 1979)**. Near the shore, water entering the system tends to flow horizontally in a shallow flow system through the Upper Glacial Aquifer to be discharged from subsurface systems into streams or marine surface waters as subsurface outflow. Water that enters the system further inland generally flows vertically to deeper aquifers before flowing toward the shores (**Krulikas, 1986**).

The major water-bearing units beneath the subject site include the Upper Glacial aquifer, the Magothy aquifer, and the Lloyd aquifer **(Jensen and Soren, 1974; Koszalka, 1984)** and

corresponds directly with the formation altitudes and thicknesses discussed in **Section 3.3**. The aquifer directly underlying the facility is the Upper Glacial aquifer and is noted to have an average horizontal hydraulic conductivity of 201 feet per day (ft/day) (**McClymonds and Franke, 1972)** and an average vertical hydraulic conductivity of 27 ft/day (**Franke and Cohen, 1972**).

Groundwater underlying the facility is encountered at an elevation of approximately 23 feet above msl and the topographic elevation of the property floor ranges from 36 feet to 56 feet above msl. Therefore the depth to water ranges from 13 feet to 33 feet below ground surface (bgs). Regionally groundwater is observed to flow in a southeasterly direction. The regional groundwater flow direction can be found in **Figure 7**.

3.5 WETLANDS

No wetlands or surface water bodies were noted on or adjacent to the site during inspections of the subject property. In addition, review of NYSDEC Freshwater Wetlands and National Wetland Inventory maps confirm that no wetlands are located on or near the site.

The NYSDEC Freshwater Wetlands and National Wetland Inventory maps covering the proposed Breezy Hill Group VI, LLC facility and surrounding area are provided as **Figures 8** and **9**, respectively.

3.6 FLOOD ZONE

Review of FEMA Flood Insurance maps reveal that the proposed Breezy Hill Group VI, LLC facility is located in an area designated as Zone X, an area of minimal flooding. The portion of the FEMA Flood Map that covers the subject property is provided on **Figure 10**.

4.0 REGIONAL RESOURCES

4.1 LAND USE

As noted previously, the subject property is currently occupied by a former residence and barn and is used for the storage of materials and equipment utilized by Breezy Hill Group VI, LLC.

Land use immediately surrounding the subject facility consists primarily of commercial, industrial and residential uses. Surrounding land uses are described more specifically as follows:

North – Manor Road, beyond which lies farmland.
South - Middle Road, beyond which lies commercial/industrial properties including a cement products company and construction company yard.
East – Commercial and residential properties.
West – Farmland and industrial properties.

A depiction of the land use surrounding the subject property is provided on **Figure 11**.

4.2 ZONING

The zoning of the area immediately surrounding the subject facility is for residential and industrial purposes as well as for agricultural preservation. Specifically the subject property is classified as Industrial A and areas immediately surrounding the subject property are classified as Industrial A and Agricultural Protection. The zoning of the subject property and surrounding area is depicted on **Figure 12**.

4.3 ACCESS AND TRANSPORTATION

Access to the subject facility is provided by Middle Road south of the property and Manor Road north of the property. Middle Road intersects Manor Road which intersects with S.R. 25, located approximately 0.35 miles to the south. In addition, S.R 25 provides access to the Long Island Expressway (I.R. 495) which is located approximately additional 0.5 miles to the south.

Transportation in the area surrounding the subject facility is provided primarily by individual motor vehicles utilizing the adjacent roadway network. The only public transportation resource in the immediate area of the subject property consists of bus stop S58 located west of the intersection of Manor Road and NYS Route 25.

4.4 WATER UTILITIES

The subject facility is within the jurisdiction of the Riverhead Water District. No water supply, monitoring or irrigation wells are located on or utilized by the subject property.

No municipal drainage systems are available within the area of the subject facility. All runoff generated during storm events recharges directly through pervious surface areas on the subject property. No recharge facilities (i.e., stormwater leaching pools, recharge basins, swales, etc.) are located on or adjacent to the subject facility.

As noted previously, groundwater underlying the subject site is encountered at a depth of approximately 13 to 33 feet below ground surface.

5.0 FACILITY OPERATIONS AND MAINTENANCE

5.1 ACCEPTED WASTE AND ON-SITE STORAGE

The proposed facility will receive a variety of construction and demolition debris from local construction and demolition projects. This waste material consists of the following:

- **Unprocessed C&D Material** – Consists of a mix of concrete, dirt, brick, asphalt and rock. Estimated 13,000 CY stored on-site.
- **Processed Soil –** Consists of screened soil removed from C&D material and imported raw material. Estimated 5,000 CY stored on-site.
- **Processed RCA** - Consists of finished RCA material. Estimated 7,000 CY stored on-site.
- **Processed Asphalt Millings** – Consists of finished asphalt millings material processed from raw asphalt debris imported to site. Estimated 1,000 CY stored on-site.

All wastes and process materials will be stored in open segregated piles within site specific designated areas. No primary containment or sheltering structures are required or necessary for the storage of these materials and any such installation would hinder the process flow for site activities. Additional information regarding the storage of wastes and process materials is provided in **Section 5.2.5**. The locations of the facility storage areas are provided on the 6NYCRR Part 360 Permit Site Plan included in a pocket at the end of this document. In the event that unacceptable waste is imported to the facility, it will be segregated, isolated and transported to the designated unacceptable waste storage area.

5.2 FACILITY PROCESS

5.2.1 Acceptance, Screening and Sorting

The proposed Breezy Hill Group VI, LLC facility will only receive soil as defined under 6 NYCCR Part 360.2(b)(250) and C&D debris as defined under 6 NYCRR Part 360.2(b)(283). Specifically the facility will engage in the receipt of C&D material (i.e., soil, concrete, brick, asphalt and rock). No putrescible material or other solid wastes mixed with imported materials will be accepted unless specifically approved by the NYSDEC.

All waste brought to the facility will be inspected and processed solely by Breezy Hill Group VI, LLC operations personnel. As stated previously, the facility will receive wastes including soil, concrete, brick, asphalt and rock which will be processed for the creation of RCA. Monitoring of collected wastes will be conducted by Breezy Hill Group VI, LLC personnel who are trained through personal instruction and experience.

In addition, Breezy Hill Group VI, LLC will fund environmental monitoring services to be performed by the NYSDEC. These monitoring services will include but not be limited to, the following:

- Monitoring of the facility to ensure compliance with NYSDEC regulations and Special Permit conditions.
- Provide inspections and compliance monitoring for the facility.
- Provide monitoring for facility impacts to the surrounding area.
- Review the facilities operational records and observe operational procedures.
- Investigate and respond to reported violations and complaints.
- Offer technical assistance to the facility operator and answer questions from the public.
- Maintain files and databases.
- Review annual reports, permit applications, permit modifications, correspondence relating to the facility and other submittals to the NYSDEC.
- Prepare documentation for enforcement actions.

Upon entrance to the facility, transporters will check in at the receiving office to declare waste materials to be delivered as well as quantity. Waste material will then be inspected, volumes calculated and transported to the tipping and processing areas established for organic and C&D materials and deposited within designated areas for storage prior to processing. If unacceptable materials are discovered then the load will be rejected and not be allowed to be deposited at the facility. Given the controlled, predictable and consistent waste stream that is part of the routine operations of Breezy Hill Group VI, LLC, such material is not expected.

5.2.2 Equipment

Operation of the proposed Breezy Hill Group VI, LLC facility requires the use of a variety of equipment consisting of loaders, excavators, crushers and screeners. A summary of the equipment used at the facility is provided in **Table 1**.

Process materials will be transported to the facility by tractor trailer or small trucks which dump directly to the areas designated for each specific waste type. The transport of these materials will be via third party contractors not affiliated with Breezy Hill Group VI, LLC or by Breezy Hill Group VI, LLC personel.

Manufacturer specification sheets for the equipment to be used as part of the transfer facility operation are provided in **Appendix A**.

A soil screener is present on the subject property and is used for the screening of soil imported to the facility. The facility also maintains a crusher used to reduce concrete into RCA. Materials are moved around the site using front loading pay loaders.

Table 1
C&D Processing Facility Equipment

Equipment	Purpose/Use
Caterpillar 938M Loader	On-site transport and movement of materials
Caterpillar 966M Loader	On-site transport and movement of materials
Volvo 160 Excavator	On-site transport and movement of materials
Volvo 210 Excavator	On-site transport and movement of materials
Caterpillar 299 Track Skidsteer	On-site transport and movement of materials
Caterpillar Generator	On-site transport and movement of materials
Kleemann Mobirex MR130 EVO2 Track Mounted Crusher	Processing and screening of C&D material
Read RD90 Screener	Processing and screening of C&D material
Powerscreen 1700 Chieftain	Processing and screening of C&D material
Survivor® ATV Portable Truck Scale	Weighing of truck loads entering and leaving facility

5.2.3 Storage Facilities and Requirements

Storage of C&D debris will comply with the provisions and requirements outlined under 6 NYCRR Part 361-5.4(f) for C&D facilities. Facilities for wastes imported for processing will be located in the western and northeastern portion of the processing area of the facility and will consist of several designated storage pile areas. A listing of each storage area, capacities, material and storage provisions are presented in **Table 2**.

The locations of each storage area are depicted in the 6NYCRR Part 360 Site Plan provided at the end of this document.

As per 6 NYCRR Part 361-5.4(f)(2), no C&D material will be stored in excavations or below the normal grade level of the facility.

Due to the nature of the business, materials stored at the proposed Breezy Hill Group VI, LLC facility are not generated on a consistent basis and waste generation varies seasonally. Due to the intermittent nature of the proposed Breezy Hill Group VI, LLC facility process, the throughput of wastes is generally not anticipated to occur on a daily basis depending on the season; however, an estimate of the daily throughputs for each waste type is provided below:

- 300 CY/day (450 tons/day) of unprocessed concrete, brick, rock, asphalt & fill;
- 500 CY/day (750 tons/day) of processed RCA;
- 200 CY/day (400 tons/day) of asphalt millings; and
- 300 CY/day (390 tons/day) of processed soil.

It is estimated, that the daily throughput combined for all waste types will be approximately 1,300 CY per day (1,630 tons per day) resulting in an estimated 28 trucks per day.

Table 2
Process Material Storage

C&D DEBRIS HANDLING AND RECOVERY FACILITY		
Material	**Existing/Required Capacity**	**Storage Provisions**
Unprocessed Concrete, Brick, Rock, Asphalt and Fill.	13,000 CY	Storage limited to 365 days unless a need to store for longer period is established, facility has sufficient storage area to prevent negative impact to public and/or facility implements an inventory control system. Soil stored at the facility must have no evidence of chemical or physical contamination as outlined in 6 NYCRR Part 361-5.2(a)(6). Storage limited to 365 days unless a need to store for longer period is established, facility has sufficient storage area to prevent negative impact to public and/or facility implements an inventory control system.
Processed RCA	7,000 CY	No time restriction as per the provisions of 6 NYCRR Part 361-5.4(f)(1)(iv) and 6 NYCRR Part 360.12(c)(3)(viii) so long as the storage volume conforms with the declared storage volume of the application.
Processed Asphalt Millings	1,000 CY	No time restriction as per the provisions of 6 NYCRR Part 361-5.4(f)(1)(iv) and 6 NYCRR Part 360.12(c)(3)(ix) so long as the storage volume conforms with the declared storage volume of the application.
Processed Soil	5,000 CY	No time restriction as per the provisions of 6 NYCRR Part 361-5.4(f)(1)(iv) and 6 NYCRR Part 360.12(c)(3)(ix) so long as the storage volume conforms with the declared storage volume of the application. As per 6 NYCRR Part 361-5.4(f)(3) with the exception of concrete, asphalt pavement or cuttings, brick or rock a minimum separation distance of ten (10) feet must be maintained between adjacent storage piles unless the piles are stored in bins or other structures which separates piles. Storage piles must not extend over property boundaries.
Unauthorized Waste		
Unauthorized waste will be stored in a specifically designated area located on the subject property (refer to **Site Plan** for location). Containment for this area will consist of a concrete block bin with a poly plastic liner floor. Wastes will be sheltered with a ploy plastic cover. Any unauthorized waste will be removed from the facility within 7 days in accordance with Section 360.19(4) of 6 NYCRR Part 360.		

5.2.4 Process Flow

A Plan depicting the process flow of the facility is provided in a pocket at the end of this document.

Vehicles will enter the facility at the site entrance located along Manor Road. All delivery vehicles containing waste materials will check in at the facility truck scale located south of the storage area prior to unloading for inspection. Following inspection, vehicles will be directed to the appropriate unloading area depending on waste type. Each storage area will be identified through signage to prevent the inadvertent inter-mingling of materials.

Once unloading is complete, vehicles will exit the facility via a loop driveway that encircles the processing area to the ingress/egress located along Manor Road.

Materials accepted at the facility for C&D processing originate mostly from demolition projects and consist of concrete/dirt mixture, large chunk concrete, concrete aggregate (mixture of concrete, brick and stone without dirt) and broken asphalt. Trucks bearing loads of concrete will be directed to the concrete storage area located on the east side of the processing area of the facility.

Concrete materials will undergo processing to create RCA for retail/commercial sale or reuse by Breezy Hill Group VI, LLC. Concrete/dirt mixture materials will be directed transported to a screener by front end loader to separate the dirt from concrete. Dirt retrieved from this process will be transported to the unscreened soil area located in the western portion of the processing facility. This material will be used by Breezy Hill Group VI, LLC or sold as general fill.

Separated concrete, chunks and aggregate will be transported to the crushers located in the southern end and northwest corner of the processing facility and reduced into RCA product which will be stored on the central portion of the processing facility. Asphalt will be converted into millings and finished product will be stored in the northern end of the processing facility.

5.2.5 Waste Control Plan

Waste control of C&D debris will comply with the provisions and requirements outlined under 6 NYCRR Part 360.19 as well as 6 NYCRR Part 361-5.4 for C&D Materials. Wastes transported to the facility will be transferred directly to their appropriate areas for storage prior to processing. All materials will be stored in piles with no primary containment or sheltering.

Only solid waste permitted to be accepted by this facility will be accepted. Generators and transporters of solid wastes received at this facility will be informed by posted signs at the entrance of the facility. Pursuant to 6NYCRR 360.19(c)(i), signs will be posted at the entrance outlining the types of waste material which are permitted and not permitted to be unloaded. Loads not permitted will be rejected and turned away. Facility staff including equipment operators and laborers will be trained to identify acceptable waste and will be instructed to report unacceptable waste to the facility manager and/or site supervisor.

As collection vehicles enter the facility, information such as vehicle type, company and source of material will be recorded by facility personnel. The material within each truck will be inspected by facility personnel prior to entry. Evidence of unauthorized waste will result in the rejection of the load. Unauthorized material will include waste not falling within the definition for C&D debris under 6NYCRR 360-2(b)(61).

Should any unauthorized waste be identified in any of the process areas of the facility it will be placed in the designated unauthorized waste container/area. Any unauthorized liquefied waste will be placed in drums or other leak resistant containers. All unauthorized waste will be transported and stored in a specific area designated for this purpose which is depicted on the 6NYCRR Part 360 Permit Site Plan included in a pocket at the end of this document. This area will be located southwest of the processing area and is depicted on the Site Plan. All incidents of unauthorized waste acceptance at the facility will be reported to the NYSDEC in the annual report as required by NYSDEC regulations. Any dangerous or hazardous materials will be reported to the proper authorities by the facility emergency coordinator and removed from the facility within 7 days after receipt by an appropriate waste hauler as per 6NYCRR Part 360.19(c)(4)(i).

A log book will be maintained by the facility emergency coordinator to record events, date, time, description, actions/repairs, etc. All incidents of receipt of unauthorized waste will be recorded in the respective daily log with such information included in the subsequent annual report to the NYSDEC.

All materials leaving the facility shall be accompanied by a tracking document as prescribed under 6 NYCRR 361-5.5(a). A copy of the C&D Tracking Document is provided in **Appendix B**.

In addition, appropriate manifest and bill of lading procedures will be followed through the entire waste transport process if/or as appropriate.

5.2.6 Run-off Run-on Plan

The facility will utilize a run-off/run-on plan in accordance with the requirements of 6NYCRR 361-4.3(a)(13) in order to manage precipitation that comes in contact with processed and unprocessed materials related to the mulch processing operation conducted at the subject facility. The run-off/run-on plan will employ the best management practices appropriate to the facilities operations to restrict the amount of stormwater generated at the facility.

Run-off and run-on at the property will be controlled by several natural and man-made features as well as site management practices as prevention measures. Specifically, the subject property will undergo significant grading to accommodate the facility. Initial grading will begin from an elevation of sixty-two (62) feet in the northern end of the property down to an elevation of forty-four (44) feet in the central portion of the property at a slope of approximately 4%. The western and eastern sides of the property will be sloped toward the interior of the property so that run-off will be directed ultimately to the southern end of the site. In the south-southwestern and southeastern portions of the site five (5) foot deep pre-treatment sediment basins will be excavated to collect surface run-off and will maintain capacities of 5,535 cubic feet (CF) and 7,788 CF, respectively. Sediment collected in the pre-treatment basins is expected

to be periodically excavated and will likely be transferred to the processing facility for processing. Collected run-off from these sediment basins will be transferred via underground culvert to a seven (7) foot deep drainage reserve area which will maintain a total capacity of 21,509 CF and will be equipped with two (2), ten (10) foot diameter and two (2) feet deep leaching pools to assist in the recharge of stormwater to the subsurface. A copy of the Grading & Drainage Plan for the subject facility has been provided as **Drawing C-103** in a pocket at the end of this document.

In addition, the process and storage areas of the facility are expected to become sufficiently compacted from on-site operations and be graded with impermeable material to limit the direct discharge of stormwater in these areas and promote overland run-off towards the pre-treatment sediment basins for ultimate sub-surface discharge. and will be directed to more permeable areas of the property for recharge.

Finally, the depth to groundwater at the facility ranges from approximately 20 to 35 feet below ground surface and will be at a depth of eighteen (18) feet below the pre-treatment sediment basins and sixteen (16) feet below the drainage reserve area. Soils which overlay the water table are expected to provide sufficient filter material to mitigate any impact to groundwater underlying the site.

5.2.7 Travel Routes

The site access for trucks transporting material to and from the facility is located on the south side Manor Road which will provide access to the NYS Route 25 which ultimately leads to the Long Island Expressway (I-496) located approximately 0.5 mile to the south. Vehicles traveling to the Long Island Expressway will proceed west on Manor Road which eventually curves south and intersects NYS Route 25. From NYS Route 25 vehicles can continue east and eventually curve south to access west. Access from areas further east may be provided by NYS 25. Other routes to more nearby destinations are available on local roads.

5.2.8 Schedule of Operations

Normal operating hours of the facility will be Monday through Friday from 6:30 am to 6:00 pm and Saturday 6:30 am to 5:00 pm and Sunday (only dumping no crushing) 7:00 am to 2:00 pm. Ingress and egress for the import and export of material will be controlled through the single access central located along the northern property boundary which will connect to Manor Road. No loads of waste materials will be unloaded until they are inspected by Breezy Hill Group VI, LLC personnel during normal hours of operation.

Prior to opening of the facility for daily operations, all process equipment will be inspected and maintained as required. In addition, a facility drive through inspection will also be conducted

on a daily basis for evidence problems which may interfere with operations. At the end of normal operating hours all equipment will be shut down and fueled. All waste as well as process material will be secured in appropriate staging areas.

5.2.9 Nuisance and Vector Control Plan

Environmental nuisances such as odors and vectors (i.e., insects, rodents, etc.) are not expected to occur since no putrescible waste will be accepted at the facility, and no prolonged ponded water or food sources will be available. As a result, operation of the facility does not constitute an opportunistic environment for the breeding of vectors. Vectors typically require food, harborage and water, and there will be no sources of food or water left exposed on the site. Further, the facility operations can be observed and there are no issues with respect to vectors based on past use of the facility. All wastes will be contained within specifically designated areas and litter will not be produced as a result of the waste imported to the site.

B. Lang Associates prepared a Sound Level Measurements and Impact Analysis for the subject property and the results were summarized in a report dated October, 2020. The purpose of the analysis was to evaluate sound levels that may occur as a result of the facility as well as provide any recommend any mitigation measures if necessary. The relevant analysis with regard to Part 360.19 has been quoted below.

> *"Analysis of sound levels were also analyzed per Part 360. Solid Waste Management Facilities General Requirements. Per, 360.19 Operating requirements, the proposed Asphalt and Concrete Crushing and Screening Facility could be mandated to maintain sound levels equivalent to suburban areas as provided in the ordinance. Sound levels beyond the property line must adhere to the Leq sound level limit presented in 360.19(d)(8)(j) if locations are authorized for residential use. Although residentially occupied areas occur to the east, these properties are classified/zoned as Industrial A Zoning use district. Per Town of Riverhead, NY / Part III: Zoning And Land Development / Zoning and Land Development / Districts Article XXIII Industrial A (Ind A) Zoning Use District "is to allow industrial and warehousing uses in defined areas, primarily located north and west of the terminus of the Long Island Expressway." Thus, it is not authorized for residential purposes.*
>
> *Exploring options for existing or proposed noise abatement to alleviate sound levels to residentially occupied properties was undertaken during this analysis. The existing house and garage structure to the immediate easterly property, identified as 1776 Middle Road will act as a barrier which attenuates noise dispersion further to the east. Per the FHWA, "a two-story building can reduce noise levels on the side of the building away from the noise source by about 13dBA."*

Proper locations of site activities will allow noise level reduction from the source equipment, thus minimizing noise to the adjacent receptors. The proposed crusher/screening equipment have been strategically placed (1) along Manor Road where existing ambient sound levels are higher and (2) in the center of the site approximately 215 feet west of the eastern property boundary. As per Table 5, sound levels 200 feet from the source are approximately 68 dB(A) for the crusher/screening equipment. In order to further reduce potential noise impacts on its residential neighbors, crushing operations (which would generate the most noise) may be limited in time, possibly to the hours between 10 AM and 4 PM.

In addition, per NYSDEC's Assessing and Mitigation Noise, "stockpiles of raw material or finished product can be an effective sound barrier if strategically placed." Stockpiles have been intentionally placed along the western side of the eastern leg of the driveway/ring road. Lastly, site design includes ten-foot deep buffers along the eastern, western and southwestern property boundaries and 20-foot deep buffers along the southeastern and northerly property boundaries.

It should be noted that on August 11, 2020, B. Laing Associates, Inc. conducted sound monitoring efforts at a similar facility located on Grand Boulevard, Westbury, New York. Four (4) samples were obtained around the existing facility and one (1) sample within the residential area to the south. Although these sampling results were not representative of the subject site, because of the intensity of development surrounding the Westbury site, the reduction of sound level, as it pertains to distance, was evident in the sampling results. For example, the Leq in the residential area was 52.2 dB(A). This sample was taken approximately 265 feet south of the Westbury facility where Leq sample results were 69.6 dB(A)."

With regard to mitigation of noise related to the proposed facility the following conclusions were issued in the analysis.

"Analysis of sound levels were analyzed per Part 360. Solid Waste Management Facilities General Requirements, Town ordinance and NYSDEC standards. Although residentially occupied areas occur to the northeast and east, these properties are classified/zoned as Town of Riverhead Industrial A Zoning use district which "is to allow industrial and warehousing uses in defined areas, primarily located north and west of the terminus of the Long Island Expressway." Thus, it is not authorized for residential purposes. Per 360.16(c)(3)(ii), a noise monitoring and control plan will not be necessary as it relates to locations authorized for residential use and is not applicable to Industrial or Agricultural use that are in the vicinity of the subject property."

A copy of the B. Lang Associates report has been provided as **Appendix B**.

Any excessive dust generated due to facility operations during dry periods will be mitigated by water spray to be applied where dust migration may be a problem. As noted, man-made barriers are located between the facility and local receptors mitigate the potential that any dust generated will result in a nuisance condition.

5.2.10 Personnel

5.2.10.1 Staffing Plan

The proposed Breezy Hill Group VI, LLC will be operated with oversight of a facility manager who is present at the facility during the normal operating hours (facility hours are outlined in **Section 5.2.8)**. Clerical staff during these hours will be tasked with maintaining facility records as well as other secretarial duties. Essential staff positions below the facility manager include; a site superintendent, equipment operators and laborers. There are up to 15 personnel at the facility during normal operations who are employed in management, office and site operation positions.

Facility Manager: The facility manager will maintain overall responsibility for all aspects of operations. A description of the duties of the Facility Manager is as follows: Conducts facility self-inspections, and plans and oversees all remedies of malfunctions. Prepares and approves all reports associated with facility operations. Authorized to implement contingency plan. Participates in the development and implementation of training and safety programs and will act as the primary emergency coordinator as well as the safety coordinator. Responsible for staffing and all personnel matters. Maintains direct authority over all facility personnel. Responsible for decisions regarding purchasing and equipment readiness. The future facility manager has yet to be determined.

Site Superintendent: The site superintendent will directly oversee site activities and waste handling. A description of duties of the Site Superintendent is as follows: Manages and supervises handling of all wastes brought to the facility, maintains records of waste activity including quantity, origin and destination of wastes. Responsible for conducting facility self inspections. The future site superintendent has yet to be determined.

Equipment Operator: A description of duties of the Equipment Operator is as follows: Operates mobile equipment used in the collection, handling and processing of solid waste. Responsible for equipment inspection and requests for maintenance and repair. Trained in proper inspection and safety procedures. Identifies unauthorized wastes and responsible for separation and isolation of such materials. Equipment operators have yet to be determined.

Laborer: A description of duties of the Laborer is as follows: Directs unloading traffic to each area of the facility. Identifies unauthorized wastes and responsible for separation and transfer

to designated storage areas Assists with all miscellaneous tasks as necessary. Laborers have yet to be determined.

5.2.10.2 Personnel Training Requirements

Operation of the facility is conducted under the direction of a Facility Manager who has the responsibility, authority and knowledge to make and implement decisions regarding operating conditions at the facility. All training regarding the operation of the facility as well as the waste control plan and contingency plan will be the responsibility of the Facility Manager. The facility manager will maintain all appropriate training which will include OSHA 40 hour HAZWOPR training and OSHA 10 hour Supervisor training. All employees will be required to review operational materials and be knowledgeable of the operation, waste control and contingency plans outlined in this report.

5.2.11 Record Keeping and Reporting

In addition, to the requirements of outlined in 6NYCRR Part 360.19(k) the facility operator will also comply with the reporting requirements issued in 6NYCRR Parts 361-4.6 and 361-5.5 which are summarized below.

Application Documents
The owner or operator of the facility will maintain and make readily available for inspection throughout the life of the facility (including the post-closure care period) a copy of all information and data required as part of the application for the facility permit as well as construction certification and closure construction certification documents.

Operation Records
The owner or operator of the facility will maintain and make readily available the following operating records for a period of no less than seven years:

- A daily log of wastes received that identifies the waste type, quantity, date received, and location from where the waste was generated. In addition, daily logs will also identify the quantity and destination of any waste products or recyclables that are removed from the facility.
- Routine inspection logs of wastes received that will include the date and time of inspection, the name of the inspector, a description of the inspection, the observations recorded and the date and nature of any remedial actions implemented.
- All monitoring information necessary for compliance with the requirements of 6NYCRR Parts 360.19, 361-4.3 and 361.54.
- Records documenting training programs, schedules and certifications, if required.

Annual Report

An annual report will be submitted to the NYSDEC no later than March 1 of each year for the previous calendar year, on forms prescribed by the NYSDEC with the required certification statement provided in 6NYCRR Part 360.19(k)(3)(ii). The report will include a monthly summary of the daily records accounting for the facility total throughout and must include details of any equipment added to the facility and any occurrences which have led to a change in facility procedures during that reporting period and must specify what those changes were.

Copies of the operational record forms as well as a typical annual report are provided in **Appendix C**.

5.2.12 Contingency Plan

In the event of an emergency at the facility, the 911 telephone system will be utilized to contact emergency services. The subject facility is within the jurisdiction of the following emergency agencies:

Riverhead Fire Department
540 Roanoke Avenue
Riverhead, New York 11901
(631) 727-2751

Riverhead Volunteer Ambulance
1111 Osborn Avenue
Riverhead, New York 11901
(631) 727-1686

Riverhead Police Department
210 Howell Avenue
Rivehead, New York 11901
(631) 727-4500

NYSDEC
Department of Chemical and Pollution Control
50 Circle Road
Stony Brook, New York 11790
1-800-457-7362

The on-site emergency coordinators for the subject facility is provided below:

To Be Determined, Facility Manager/Owner
Office: To Be Determined

Cell: To Be Determined
To Be Determined, Site Superintendent/Site Operator
Office: To Be Determined

Company principles and field personnel are experienced in equipment maintenance and operation and are knowledgeable in emergency notification response.

The nature of the operation, controlled equipment operation and employee dedication assists in ensuring that emergency situations will be limited to the greatest extent practicable. Nevertheless, Breezy Hill Group VI, LLC will institute procedures for emergency mitigation and notification, in order to ensure that appropriate measures are in place to protect employees, the community and site visitors.

Should an emergency occur, access or evacuation from the facility will be provided from both ingess/egress located along Manor Road and Middle Road.

6.0 FACILITY CLOSURE AND POST CLOSURE MONITORING

6.1 CLOSURE PLAN

This closure plan has been prepared for the NYSDEC Division of Materials Management in accordance with the requirements of 6 NYCRR Part 360.21 in order to enable the discontinuation of transfer facility operation at the site.

Prior to closure the NYSDEC as well as any other appropriate regulating agencies will be notified.

Closure will provide for the complete decommissioning of the facility in such a manner as to present no adverse environmental impacts to the community. At the time of closure, Breezy Hill Group VI, LLC will remove all waste, waste residue and any recovered materials. The storage facilities shall either be dismantled and removed or appropriately cleaned. All material on-site, whether in process or processed will be transported to an authorized facility and all processing/storage areas will be appropriately cleaned. A summary of the closure process will be as follows:

- Notification of the NYSDEC in writing 30 days prior to the anticipated final receipt of waste and within 7 days of completion of all closure activities.

- Within 30 days after receiving the final quantity of wastes, submit an annual report to the department as required under 6NYCRR Part 360 Section 360.21

- Within 60 days after receiving the final quantity of waste, remove and deliver any remaining waste to a facility authorized to accept the waste

- Within 90 days of receipt of the final quantity of waste, complete all closure activities, including removal of all products resulting from the processing of waste and decontamination of all equipment and structures involved in any aspect of waste management in a manner acceptable to the NYSDEC.

- Perform final facility inspection with appropriate personnel as well as the NYSDEC to ensure compliance with Closure Plan and prepare appropriate documentation for final closure.

- When closure is completed, Breezy Hill Group VI, LLC will submit to the NYSDEC certification by an individual licensed to practice engineering in the State of New York that the facility has been closed in accordance with NYSDEC requirements. This certification of completion will be submitted to the NYSDEC within 10 days after the closure of the facility.

All closure activities will be conducted by Breezy Hill Group VI, LLC personnel using Breezy Hill Group VI, LLC equipment under the direction of a professional engineer licensed in the State of New York. Using maximum potential waste inventories which can be stored at the facility and under a worst case scenario it is estimated that the total cost for facility closure including removal and disposal of wastes as well as all cleaning, oversight and reporting will total approximately $250,000.00.

Breezy Hill Group VI, LLC maintains an insurance policy to protect against losses related to property damage and/or personal injury. In accordance with 6NYCRR Part 360 Section 360.22(b)(1), a bond is typically required to be obtained and submitted to the NYSDEC to cover the costs of having the facility properly closed should Breezy Hill Group VI, LLC fail to perform such closure in a NYSDEC approved manner. Given the nature of the operation (i.e., controlled by Breezy Hill Group VI, LLC for waste generated, hauled, stored and transferred by Breezy Hill Group VI, LLC), the materials stored on-site (i.e., materials that can be easily removed to markets or disposal locations), and the low anticipated cost to decommission the facility, the bond is requested to be waived. If required, an amount of not more than $250,000.00 could be bonded; however, the applicant requests the waiver for the reasons outlined above. Upon NYSDEC approval of the closure by the facility owner/operator, such surety, if required, will be withdrawn.

This Closure Plan may be amended at any time during the active life of the proposed Breezy Hill Group VI, LLC facility with the approval of the NYSDEC Division of Materials Management. In addition, Closure Plan will also be amended whenever changes in operation or facility design affect the Closure Plan.

6.2 POST CLOSURE MONITORING

All transfer station waste materials stored at the facility are inert and are not expected to contain any significant toxic materials. In addition, any materials stored at the facility will be removed as part of closure operations. As a result, following closure of the facility continued monitoring to ensure that no impacts to the environment have occurred will not be required unless as directed otherwise by the NYSDEC.

7.0 SUMMARY

This engineering report has been prepared as part of a 6 NYCRR Part 360 Permit Application to operate a Mulch Processing Facility and a C&D Handling and Recovery Facility at the Breezy Hill Group VI, LLC property located at 1792 Middle Road, Calverton New York. This report is required as part of the permit application process as outlined under 6NYCRR Part 360 Section 360.16(c)(3).

The applicant for the proposed facility seeks to obtain a permit to allow for the processing of C&D material as well as mulch processing in accordance with the requirements outlined under Subpart 361-5 (Construction and Demolition Debris Handling and Recovery Facilities) of 6 NYCRR Part 361.

The purpose of this report is to provide the NYSDEC Division of Materials Management the information required in order to assess the appropriateness of issuing a Construction and Demolition Debris Handling and Recovery Facility permit in relation to surrounding property uses and environmental resources as well as outlining facility protocols and procedures of operation. The information included in this document is in conformance with the provisions outlined in 6 NYCRR Part 360 (General Requirements), and 361-5.3 (Construction and Demolition Debris Handling and Recovery Facilities).

This report has provided a description of the facility, surrounding environmental and regional resources as well as operations as they relate to transfer station activities.

Pending approval, the facility will operate as a Construction and Demolition Debris Handling and Recovery Facility that accepts concrete, asphalt, rock, brick and soil for processing of mulch and RCA for sale. Wastes will be stored in designated areas located in the western portion of the property and processed. Overall, operation of the facility will comply with the rules and regulations of 6 NYCRR Part 360, (General Requirements) and Subpart 360-16 (Construction and Demolition Debris Handling and Recovery Facilities).

8.0 REFERENCES

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FIGURES

APPENDICES

APPENDIX A

EQUIPMENT MANUFACTURER SPECIFICATION SHEETS

APPENDIX B

SOUND LEVEL MEASUREMENTS AND IMPACT ANALYSIS
1792 MIDDLE COUNTRY ROAD CALVERTON
OCTOBER 2020

NPV

APPENDIX C

REPORTING DOCUMENTATION

PLANS

APPENDIX D
GROUNDWATER STUDY REPORT

Nelson Pope Voorhis
December 18, 2020

GROUNDWATER STUDY REPORT

Breezy Hill Group IV, LLC
1792 Middle Road
AKA Roadwork Ahead

Calverton, New York

NPV No. 17060

Prepared for:
Sam Stasi
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Prepared by:

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environmental • land use • planning

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December 18, 2020

Groundwater Study Report

Breezy Hill Group IV, LLC
1792 Middle Road
AKA Roadwork Ahead

THIS DOCUMENT CONTAINS 11 PAGES OF TEXT

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One (1) copy retained in NPV files

Prepared For:

Sam Stasi
Roadwork Ahead
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Prepared By:

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CONTENTS

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Groundwater Study Report

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1792 Middle Road
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1.0 INTRODUCTION AND PURPOSE

This study has been conducted to assess groundwater conditions at the subject property in accordance with the Groundwater Study Work Plan dated November 20, 2020 (**Appendix A**). This study was required as part of the Final Scope dated February 25, 2020 for the Draft Environmental Impact Statement (DEIS) pertaining to the subject site. The Final Scope provides an outline for the DEIS which assesses the potential impacts related to the proposed development of the subject property.

The subject property is located at 1792 Middle Road, Calverton, New York and consists of a 6.68-acre industrially zoned parcel which currently contains a residence and residential accessory structure. The subject property, zoned Industrial A, is proposed to be converted to an asphalt and concrete crushing and screening business. As part of this redevelopment, the existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage will be converted into office and storage space.

Based on the requirement contained in the Final Scope dated February 26, 2020, the components of the investigation included the following:

- Installation of four (4)[1] groundwater monitoring wells consisting of one (1) upgradient and three (3) down gradient monitoring wells and groundwater sampling in order to supplement the existing on-site NYSDEC groundwater monitoring network.
- Plot location of each monitoring well and determine relative horizontal elevation for the purpose of preparing a groundwater contour map which will be included in the groundwater monitoring report.
- Collect groundwater samples from two (2) monitoring wells (one upgradient and one down gradient) located on the subject property using low-flow methodology.
- Analyze two (2) groundwater samples for the presence of volatile and semi-volatile organic compounds pesticides, herbicides, metals, 1,4-dioxane and perfluorinated compounds (PFOS-PFOA).

[1] The Final Scope required three (3) wells. NPV proposes one (1) additional well to assist in determining direction of groundwater flow.

The protocol used to direct this investigation were based upon the following documents: the New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 375 and NYSDEC Division of Water TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. The laboratory analyses were provided by Long Island Analytical Laboratories, Inc., a NYS and ELAP Certified Laboratory. The following sections detail the subject property and surrounding area characteristics, sampling program, quality assurance protocol, laboratory analysis methodology and laboratory results.

2.0 SAMPLING AND ANALYSIS PROGRAM (SAP)

2.1 MONITORING WELL INSTALLATION

Four (4) groundwater monitoring wells were installed on the subject site. The wells include one (1) upgradient monitoring well located in the southwest portion of the property and three (3) down gradient monitoring wells located in the north, northeast and southeast portions of the property. The location of each of these monitoring wells are depicted on **Figure 1**.

Each monitoring well was constructed with a two (2) inch, ten (10) foot schedule 40, PVC 20 slot screen with sufficient riser to bring each well to approximately two (2) feet above surface grade. The screen zones were set to a depth of approximately seven (7) feet below the water table which was encountered at depths ranging from nineteen (19) to thirty-five (35) feet below ground surface. The annular space around the screen zone and riser were backfilled with #2 Morie sand gravel pack to approximately two (2) feet above the screen zone which was followed by a two (2) foot thick bentonite seal. The remaining annular space above the bentonite seal was backfilled with clean sand to two (2) feet below surface grade and followed by a concrete cap. The PVC riser extending above surface grade was been protected by the installation of a capped steel casing which was fitted with a lock for security purposes.

Following installation, each well was developed using a submersible pump until stabilization of selected water quality indicators which included pH, specific conductance, dissolved oxygen, oxidation-reduction potential, and temperature as well as a turbidity of 50 NTU's, were achieved. This resulted in the removal of approximately five (5) to ten (10) gallons of water from each monitoring well.

2.2 GROUNDWATER SAMPLING

At a minimum of twenty-four (24) hours after development, each newly installed well was sampled using "low flow" methodology. Under the "low-flow" procedure, each well was purged with a variable flow submersible pump at a rate of 0.4 liter per minute (L/min) until stabilization of selected water quality indicators which included pH, specific conductance, dissolved oxygen, oxidation-reduction potential, and temperature as well as a turbidity of 50 NTU's were recorded. Once these criteria were met, a sample was collected directly from the pump and placed in the appropriate sample containers. A dedicated sampling hose was used for each well to ensure sample integrity and eliminate the potential for cross contamination. In addition, the sampling pump was decontaminated to further eliminate the potential for cross contamination.

2.3 LABORATORY SAMPLE LOCATION AND FREQUENCY

All groundwater samples were analyzed for the presence of volatile and semi-volatile organic compounds, pesticides, herbicides, metals and 1,4-dioxane and perfluorinated compounds (PFOS-PFOA). All samples submitted for analysis were containerized and labeled for identification purposes. The labels were coded to correspond to the location from which the samples were secured. **Table 1** provides an index of how the samples were coded during labeling.

TABLE 1
SAMPLE IDENTIFICATION

SAMPLE LOCATION	SAMPLE ID CODE
Sample collected from the upgradient monitoring well located in the southwest portion of the property.	MW-1
Sample collected from the downgradient monitoring well located northeastern portion of the property.	MW-3

3.0 MONITORING WELL SURVEYING AND GROUNDWATER LEVEL COLLECTION

Each groundwater monitoring well present on the subject property was surveyed for vertical elevation and horizontal location. Elevation data has been used in conjunction with groundwater level data in order to determine the direction of groundwater flow underneath the property and generate a site-specific groundwater contour map. The depth to groundwater at the subject property ranges from 19.46 feet to 34.95 feet below ground surface (bgs). Groundwater at the subject property was determined to flow generally towards the northeast, consistent with regional water table maps cited in the DEIS. Groundwater measurement and elevation data is presented in **Table 2**. Groundwater contours and the direction of groundwater flow are depicted on **Figure 2**.

Table 2
Monitoring Well Depth to Groundwater and Elevations

Monitoring Well	Depth to Water	Elevation	Groundwater Elevation
MW-1	24.51	43.8	19.29
MW-2	28.43	47.6	19.17
MW-3	34.95	54.0	19.05
MW-4	19.46	38.8	19.34

Notes: All groundwater and elevation measurements are referenced from ground surface.
All groundwater elevations are referenced above mean sea level.

4.0 LABORATORY ANALYSIS

4.1 ANALYTICAL TEST METHODS

Groundwater Sample Analysis

All of the groundwater samples were analyzed for the presence of volatile organic compounds via USEPA Test Method 8260, semi-volatile organic compounds via USEPA Test Method 8270, 1-4 dioxane using USEPA Test Method 522, inorganic compounds (metals) via USEPA Test Method 6010, pesticides via USEPA Test Method 8081, herbicides via USEPA Test Method 8151 and perfluorinated compounds (PFOS-PFOA) via USEPA Test Method 533.

4.2 ANALYTICAL RESULTS

Groundwater Sample Results

No volatile organic compounds, pesticides or herbicides were detected in either of the groundwater samples collected. Only four (4) semi-volatile organic compounds were detected in the groundwater samples collected but all were found to be below their respective NYSDEC TOGS 1.1.1 Ambient Water Quality Standards (AWQS). Five (5) metals were detected in the water samples collected but only the detection of manganese in both MW-1 and MW-2 were found to exceed their NYSDEC TOGS 1.1.1 AWQS of 0.3 mg/l. Manganese is typically found in native Long Island groundwater.

With regard to the emerging contaminants 1,4-dioxane, Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA), neither 1,4-dioxane or PFOS were detected in either sample collected from MW-1 and MW-3. However, PFOA was only detected in the sample collected from MW-1 at a concentration of 2.89 nanograms per liter (ng/l) which is below the Maximum Contaminant Level (MCL) of 10 ng/l established in 2020 by New York State.

The groundwater sample results are summarized in **Table 3**. The laboratory analysis sheets (NYS ASPA) as prepared by Long Island Analytical Laboratories are presented in **Appendix B** of this document.

TABLE 3
GROUNDWATER ANALYTICAL RESULTS

Constituents	MW-1	MW-3	1.1.1 T.O.G.S
Volatiles	**None Detected**		
Pesticides	**None Detected**		
Herbicides	**None Detected**		
Semi-volatile	**ug/l**	**ug/l**	**ug/kg**
1,4-Dioxane	ND	ND	1*
4-Nitrophenol	5.24	ND	NS
Diethyl phthalate	13.6	ND	50
N-Nitro-di-n-propylamine	8.48	ND	NS
Metals	**mg/l**	**mg/l**	**ug/l**
Calcium	4.98	25.6	NS
Magnesium	1.05	4.14	35
Manganese	**0.92**	**0.69**	0.3
Potassium	2.29	3.68	NS
Sodium	5.42	7.92	20
PFOS/PFOA	**ng/l**	**ng/l**	**ng/l**
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	10*
Perfluorooctanoic Acid (PFOA)	**2.89**	ND	10*

Notes: ND – Non-Detect; NS – No Standard
ug/kg – micrograms per kilogram; mg/kg – milligrams per kilogram; ng/l – nanograms per liter
Bold indicates elevated detection.
Bold and shaded identifies exceedance of NYSDEC TOGS 1.1.1 guidance value.
*- The standards provided are not listed under NYSDEC TOGS 1.1.1. The Maximum Contaminant Levels (MCL) were adopted by New York State and announced by Governor Cuomo on July 309, 2020

5.0 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES (QA/QC)

This sampling protocol was conducted in accordance with USEPA accepted sampling procedures for hazardous waste streams (Municipal Research Laboratory, 1980, Sampling and Sampling Procedures for Hazardous Material Waste Streams, USEPA, Cincinnati, Ohio EPA- 600\280-018) and ASTM Material Sampling Procedures. All samples were collected by or under the auspices of USEPA trained personnel having completed the course Sampling of Hazardous Materials, offered by the Office of Emergency and Remedial Response.

Separate QA/QC measures were implemented for each of the instruments used in the Sampling and Analysis Program. Sampling instruments and investigative equipment included polyethylene tubing, submersible pump and sample vessels.

All sample vessels were "level A" certified decontaminated containers. Samples were placed into vessels consistent with the analytical parameters. After acquisition, samples were preserved in the field. All containerized samples were refrigerated to 4^{o} C during transport.

A sample represents physical evidence; therefore, an essential part of liability reduction is the proper control of gathered evidence. To establish proper control, the following sample identification and chain-of-custody procedures were followed.

Sample Identification

Sample identification was executed by use of a sample tag, log book and manifest. Documentation provides the following:

1. Project Code
2. Sample Laboratory Number
3. Sample Preservation
4. Instrument Used for Source Soil Grabs
5. Composite Medium Used for Source Soil Grabs
6. Date Sample was Secured from Source Soil
7. Time Sample was Secured from Source Soil
8. Person Who Secured Sample from Source Soil

Chain-of-Custody Procedures

Due to the evidential nature of samples, possession was traceable from the time the samples were collected until they were received by the testing laboratory. A sample was considered under custody if:

It was in a person's possession, or

It was in a person's view, after being in possession, or
It was in a person's possession and they were to lock it up, or
It is in a designated secure area.

When transferring custody, the individuals relinquishing and receiving signed, dated and noted the time on the Chain-of- Custody Form.

Laboratory Custody Procedures

A designated sample custodian accepted custody of the shipped samples and verified that the information on the sample tags matched that on the Chain-of-Custody records. Pertinent information as to shipment, pick-up, courier, etc. was entered in the "remarks" section. The custodian then entered the sample tag data into a bound logbook which was arranged by project code and station number.

The laboratory custodian used the sample tag number or assigned a unique laboratory number to each sample tag and assured that all samples were transferred to the proper analyst or stored in the appropriate source area.

The custodian distributed samples to the appropriate analysts. Laboratory personnel were responsible for the care and custody of samples from the time they were received until the sample was exhausted or returned to the custodian.

All identifying data sheets and laboratory records were retained as part of the permanent site record. Samples received by the laboratory were retained until after analysis and quality assurance checks were completed.

6.0 SUMMARY AND CONCLUSION

This study has been conducted to assess groundwater conditions at the subject property in accordance with the Groundwater Study Work Plan dated November 20, 2020. This study was required as part of the Final Scope for the DEIS pertaining to the project site. The sampling and analysis plan consisted groundwater gauging, sampling and quality testing using analytical test methods consistent with requested parameters and review regulatory action levels/guidance values. The following presents the results of this investigation.

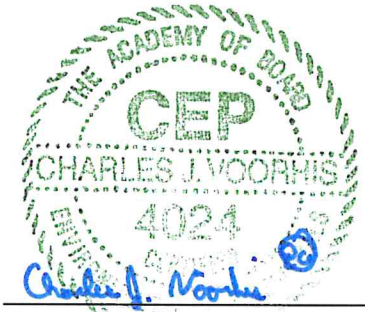
1. The depth to groundwater at the subject property ranges from 19.46 feet to 34.95 feet below ground surface (bgs). Groundwater at the subject property was determined to flow generally towards the northeast.

2. No volatile organic compounds, pesticides or herbicides were detected in either of the groundwater samples collected. Only four (4) semi-volatile organic compounds were detected in the groundwater samples collected but all were found to be below their respective NYSDEC TOGS 1.1.1 Ambient Water Quality Standards (AWQS). Five (5) metals were detected in the water samples collected but only the detection of manganese in both MW-1 and MW-2 were found to exceed their NYSDEC TOGS 1.1.1 AWQS of 0.3 mg/l. Manganese is typically found in native Long Island groundwater.

   With regard to the emerging contaminants 1,4-dioxane, Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA), neither 1,4-dioxane or PFOS were detected in either sample collected from MW-1 and MW-3. However, PFOA was only detected in the sample collected from MW-1 at a concentration of 2.89 nanograms per liter (ng/l) which is below the Maximum Contaminant Level (MCL) of 10 ng/l established in 2020 by New York State.

   Based on these results, no significant groundwater quality impacts are present that have resulted from on-site activities or conditions. With regard to manganese this inorganic compound is typically found in the sedimentary deposits found on Long Island and the recorded detections are suspected to have originated from underlying natural conditions. With respect to PFOA, this detection was in the upgradient well, and therefore is expected to have originated from an upgradient, off-site source. Further this compound was detected at a concentration of 2.89 ng/l as compared to an MCL of 10 ng/l. Consequently, this detection does not represent a significant water quality impact.

Groundwater at the subject property has been evaluated accordance with standard practice for the industry as well as the DEIS Final Scope dated February 25, 2020 and the Groundwater Study Work Plan dated October 30, 2020. This Groundwater Study addresses only the specific areas of the site warranting further analysis and can only provide conclusions regarding the groundwater quality in those specific areas tested. This groundwater study is limited to the evaluation of on-site conditions at the time of completion of the field sampling program.



12/18/20
Date of Completion

Charles J. Voorhis, CEP, AICP
Managing Partner

12/18/20
Date of Completion

Eric Arnesen, PG
Project Manager

7.0 REFERENCES

American Society for Testing and Materials (ASTM), June 2011, E1903-11 Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process, West Conshohocken, Pennsylvania.

New York State Department of Environmental Conservation (NYSDEC), 1992, Sampling Guidelines and Protocols, Technology Background and Quality Control/Quality Assurance for NYSDEC Spill Response Program, NYSDEC, Albany, New York.

NYSDEC, 1998, Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

FIGURES

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FIGURE 1
GROUNDWATER CONTOUR MAP

Source: NYS Orthophotography, 2016; land survey
Scale: 1 inch = 100 feet

Breezy Hill Group, LLC
Calverton

Groundwater Study Report

APPENDICES

APPENDIX A
PHASE II ESA WORK PLAN

GROUNDWATER STUDY WORK PLAN

Breezy Hill Group IV, LLC
1792 Middle Road
AKA Roadwork Ahead

Calverton, New York

NPV No. 17060

Prepared for:
Sam Stasi
Roadwork Ahead
180 Linden Avenue
Westbury, New York 11590

Prepared by:

NELSON POPE VOORHIS
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November 20, 2020

Groundwater Study Work Plan

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Groundwater Study Work Plan

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1792 Middle Road
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CONTENTS

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Groundwater Study Work Plan

Breezy Hill Group IV, LLC
1792 Middle Road
AKA Roadwork Ahead

1.0 PURPOSE AND SUMMARY

This work plan has been prepared to assess groundwater conditions at the subject property. This study is required as part of the Final Scope which was drafted following Positive Declaration issued by the Town of Riverhead Planning Board on May 16, 2019. The Final Scope provides an outline for the Draft Environmental Impact Statement (DEIS) which assesses the potential impacts related to the proposed development of the subject property.

The subject property is located at 1792 Middle Road, Calverton, New York and consists of a 6.68-acre industrially zoned parcel which currently contains a residence and residential accessory structure. The subject property is proposed to be converted to an asphalt and concrete crushing and screening business. As part of this redevelopment, the existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage will be converted into office and storage space.

Based on the requirement contained in the Final Scope dated February 26, 2020, the components of the investigation will include the following:

- Installation of four (4)[1] groundwater monitoring wells consisting of one (1) upgradient and three (3) down gradient monitoring wells and groundwater sampling in order to supplement the existing on-site NYSDEC groundwater monitoring network.
- Plot location of each monitoring well and determine relative horizontal elevation for the purpose of preparing a groundwater contour map which will be included in the groundwater monitoring report.
- Collect groundwater samples from two (2) monitoring wells (one upgradient and one down gradient) located on the subject property using low-flow methodology.
- Analyze two (2) groundwater samples for the presence of volatile and semi-volatile organic compounds pesticides, herbicides, metals, 1,4-dioxane and perfluorinated compounds (PFOS-PFOA).

The protocol used to direct this investigation will be based upon the following documents: the New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 375 and NYSDEC Division of Water TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values

[1] The Final Scope required three (3) wells. NPV proposes one (1) additional well to assist in determining direction of groundwater flow.

and Groundwater Effluent Limitations. The laboratory analysis will be provided by Long Island Analytical Laboratories, Inc., a NYS and ELAP Certified Laboratory. The following sections detail the subject property and surrounding area characteristics, sampling program, quality assurance protocol, laboratory analysis methodology and laboratory results.

2.0 INVESTIGATION EQUIPMENT, METHODS AND PROTOCOLS

Investigation activities will include: the installation of four (4) monitoring wells, location and relative vertical elevation of the monitoring wells, collection of groundwater levels and the collection of groundwater samples from upgradient and down gradient groundwater to characterize groundwater quality coming onto and from the subject property. A utility mark-out will be requested prior to the initiation of investigative activities. **Figure 1** provides a graphic illustration of the subject area as well as the proposed location of each test pit/boring.

A further description of proposed activities is outlined in the following sections of this work plan. All work will be completed in conformance with this work plan as outlined herein, and/or modified based on field conditions.

2.1 PERSONNEL

Project as well as Health and Safety oversight will be provided by NPV personnel over the course of site remediation activities. The managing partner will be Charles J. Voorhis, CEP, AICP and the project manager assigned for the project will be Eric C. Arnesen with Steven J. McGinn as a designated alternative. Both have a combined experience of over 50 years in environmental investigations and site remediation and possess up to date OSHA 40 hour HAZWOPER and OSHA 8 hour HAZWOPER refresher training in accordance with OSHA 29 CFR 1910.120 as well as OSHA 10 hour Construction Industry Safety Course.

2.2 SAMPLING AND ANALYSIS PROGRAM (SAP)

All sampling activities will be conducted in accordance with the requirements and protocols standard for the industry in New York State.

2.2.1 Monitoring Well Installation

As part of the study four (4) groundwater monitoring wells will be installed and will include one (1) upgradient monitoring well located in the southeast portion of the property and three (3) down gradient monitoring wells located in the north, northeast and southeast portions of the property. The location of each of these monitoring wells are depicted on **Figure 1**.

Each monitoring well will be constructed with a two (2) inch, ten (10) foot schedule 40, PVC 20 slot screen with sufficient riser to bring each well to approximately two (2) feet above surface grade. The screen zone will be set to a depth of approximately seven (7) feet below the water table which is expected to range from sixteen (16) to thirty-six (36) feet below ground surface. The annular space around the screen zone and riser will be

backfilled with #2 Morie sand gravel pack to approximately two (2) feet above the screen zone which will be followed by a two (2) foot thick bentonite seal. The remaining annular space above the bentonite seal will be backfilled with clean sand to two (2) feet below surface grade and followed by a concrete cap. The PVC riser extending above surface grade will be protected by the installation of a capped steel casing which will be fitted with a lock for security purposes.

Following installation, each well will be developed using a submersible pump until stabilization of selected water quality indicators which included pH, specific conductance, dissolved oxygen, oxidation-reduction potential, and temperature as well as a turbidity of 50 NTU's are achieved.

2.2.2 Groundwater Sampling

A minimum of twenty-four (24) hours after development, each monitoring well will be sampled using "low flow" methodology. Under the "low-flow" procedure, each well will be purged with a variable flow rate submersible pump at a rate of 0.4 liter per minute (L/min) until stabilization of selected water quality indicators which included pH, specific conductance, dissolved oxygen, oxidation-reduction potential, and temperature as well as a turbidity of 50 NTU's were recorded. Once these criteria are met, a sample will be collected directly from the pump and placed in the appropriate sample containers. A dedicated sampling hose was used for each well to ensure sample integrity and eliminate the potential for cross contamination.

All groundwater samples will be analyzed for the presence of volatile and semi-volatile organic compounds, pesticides, herbicides, metals and 1,4-dioxane and perfluorinated compounds (PFOS-PFOA).

2.2.3 Monitoring Well Surveying and Groundwater Level Collection

Each groundwater monitoring well will be plotted on the project plan and leveled for relative vertical elevation. Elevation data will be used in conjunction with groundwater level data in order to determine the direction of groundwater flow underneath the property and generate a site specific groundwater contour map. Groundwater levels will be collected using an electronic water level meter and will be measured to 1/100th of a foot. The survey elevation and groundwater level data will be used to determine groundwater elevations at the site which will be utilized to determine the direction of groundwater flow beneath the subject property.

3.0 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES (QA/QC)

This sampling protocol was conducted in accordance with USEPA accepted sampling procedures for hazardous waste streams (Municipal Research Laboratory, 1980, Sampling and Sampling Procedures for Hazardous Material Waste Streams, USEPA, Cincinnati, Ohio EPA- 600\280-018) and ASTM Material Sampling Procedures. All samples were collected by or under the auspices of USEPA trained personnel having completed the course Sampling of Hazardous Materials, offered by the Office of Emergency and Remedial Response.

Separate QA/QC measures were implemented for each of the instruments used in the Sampling and Analysis Program. Sampling instruments included a low-flow pump, Horiba Water Quality meter, polypropylene tubing and laboratory supplied sample vessels.

Prior to arrival on the site and between sample locations, the probes sections were decontaminated by washing with a detergent (alconox/liquinox) and potable water solution with distilled water rinse. The organic vapor analyzer was calibrated prior to sampling using a span gas of known concentration. All sample vessels were "level A" certified decontaminated containers. Samples were placed into vessels consistent with the analytical parameters. After acquisition, samples were preserved in the field. All containerized samples were refrigerated to 4^{o} C during transport.

A sample represents physical evidence; therefore, an essential part of liability reduction is the proper control of gathered evidence. To establish proper control, the following sample identification and chain-of-custody procedures were followed.

Sample Identification

Sample identification was executed by use of a sample tag, logbook and manifest. Documentation provides the following:

1. Project Code
2. Sample Laboratory Number
3. Sample Preservation
4. Instrument Used for Source Soil Grabs
5. Composite Medium Used for Source Soil Grabs
6. Date Sample was Secured from Source Soil
7. Time Sample was Secured from Source Soil
8. Person Who Secured Sample from Source Soil

Chain-of-Custody Procedures

Due to the evidential nature of samples, possession was traceable from the time the samples were collected until they were received by the testing laboratory. A sample was considered under custody if:

It was in a person's possession, or
It was in a person's view, after being in possession, or
It was in a person's possession and they were to lock it up, or
It is in a designated secure area.

When transferring custody, the individuals relinquishing and receiving signed, dated and noted the time on the Chain-of- Custody Form.

Laboratory Custody Procedures

A designated sample custodian accepted custody of the shipped samples and verified that the information on the sample tags matched that on the Chain-of-Custody records. Pertinent information as to shipment, pick-up, courier, etc. was entered in the "remarks" section. The custodian then entered the sample tag data into a bound logbook which was arranged by project code and station number.

The laboratory custodian used the sample tag number or assigned an unique laboratory number to each sample tag and assured that all samples were transferred to the proper analyst or stored in the appropriate source area.

The custodian distributed samples to the appropriate analysts. Laboratory personnel were responsible for the care and custody of samples from the time they were received until the sample was exhausted or returned to the custodian.

All identifying data sheets and laboratory records were retained as part of the permanent site record. Samples received by the laboratory were retained until after analysis and quality assurance checks were completed.

FIGURES

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FIGURE 1
MONITORING WELL LOCATIONS

Source: NYS Orthophotography, 2016
Scale: 1 inch = 100 feet

Breezy Hill Group, LLC
Calverton

Groundwater Study Work Plan

APPENDIX B
LABORATORY ANALYTICAL DATASHEETS

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 0120213

December 16, 2020

Nelson, Pope & Voorhis
Eric Arnesen
70 Maxess Road
Melville, NY 11747

Re: 1792 Middle Road

Dear Eric Arnesen,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on December 02, 2020. Long Island Analytical laboratories analyzed the samples on December 10, 2020 for the following:

SAMPLE ID	ANALYSIS
MW-1	EPA 522, EPA 8081 B, EPA 8151 A, EPA 8260 D, EPA 8270 E, PFCs, TAL Target Analyte List
MW-3	EPA 522, EPA 8081 B, EPA 8151 A, EPA 8260 D, EPA 8270 E, PFCs, TAL Target Analyte List

Samples received at 1.7 ° C

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 09:15	Sample ID: MW-1
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-01
Matrix: Non-Potable Water	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1,2-Tetrachloroethane	630-20-6	5.00	<5.00	ug/L	
1,1,1-Trichloroethane	71-55-6	5.00	<5.00	ug/L	
1,1,2,2-Tetrachloroethane	79-34-5	5.00	<5.00	ug/L	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5.00	<5.00	ug/L	4.K, 4.M
1,1,2-Trichloroethane	79-00-5	5.00	<5.00	ug/L	
1,1-Dichloroethane	75-34-3	5.00	<5.00	ug/L	
1,1-Dichloroethene	75-35-4	5.00	<5.00	ug/L	
1,1-Dichloropropene	563-58-6	5.00	<5.00	ug/L	
1,2,3-Trichlorobenzene	87-61-6	5.00	<5.00	ug/L	
1,2,3-Trichloropropane	96-18-4	5.00	<5.00	ug/L	4.N
1,2,4,5-Tetramethylbenzene	95-93-2	5.00	<5.00	ug/L	2.B
1,2,4-Trichlorobenzene	120-82-1	5.00	<5.00	ug/L	
1,2,4-Trimethylbenzene	95-63-6	5.00	<5.00	ug/L	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	<5.00	ug/L	
1,2-Dibromoethane	106-93-4	5.00	<5.00	ug/L	
1,2-Dichlorobenzene	95-50-1	5.00	<5.00	ug/L	
1,2-Dichloroethane	107-06-2	5.00	<5.00	ug/L	
1,2-Dichloropropane	78-87-5	5.00	<5.00	ug/L	
1,3,5-Trimethylbenzene	108-67-8	5.00	<5.00	ug/L	
1,3-Dichlorobenzene	541-73-1	5.00	<5.00	ug/L	
1,3-Dichloropropane	142-28-9	5.00	<5.00	ug/L	
1,4-Dichlorobenzene	106-46-7	5.00	<5.00	ug/L	
1,4-Diethylbenzene	105-05-5	5.00	<5.00	ug/L	2.B
1,4-Dioxane	123-91-1	100	<100	ug/L	
2,2-Dichloropropane	594-20-7	5.00	<5.00	ug/L	
2-Chloroethyl Vinyl Ether	110-75-8	5.00	<5.00	ug/L	4.J, 4.N
2-Chlorotoluene	95-49-8	5.00	<5.00	ug/L	
4-Chlorotoluene	106-43-4	5.00	<5.00	ug/L	
4-Ethyltoluene	622-96-8	5.00	<5.00	ug/L	2.B
4-Isopropyltoluene	99-87-6	5.00	<5.00	ug/L	

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 09:15	Sample ID: MW-1
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-01
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
4-Methyl-2-Pentanone	108-10-1	5.00	<5.00	ug/L	
Acetone	67-64-1	10.0	<10.0	ug/L	
Acrolein	107-02-8	5.00	<5.00	ug/L	
Acrylonitrile	107-13-1	5.00	<5.00	ug/L	4.K
Benzene	71-43-2	5.00	<5.00	ug/L	
Bromobenzene	108-86-1	5.00	<5.00	ug/L	
Bromochloromethane	74-97-5	5.00	<5.00	ug/L	
Bromodichloromethane	75-27-4	5.00	<5.00	ug/L	
Bromoform	75-25-2	5.00	<5.00	ug/L	
Bromomethane	74-83-9	5.00	<5.00	ug/L	4.K, 4.M
Carbon disulfide	75-15-0	5.00	<5.00	ug/L	
Carbon Tetrachloride	56-23-5	5.00	<5.00	ug/L	
Chlorobenzene	108-90-7	5.00	<5.00	ug/L	
Chlorodifluoromethane	75-45-6	5.00	<5.00	ug/L	2.B, 4.K, 4.M
Chloroethane	75-00-3	5.00	<5.00	ug/L	4.K, 4.M
Chloroform	67-66-3	5.00	<5.00	ug/L	
Chloromethane	74-87-3	5.00	<5.00	ug/L	4.K, 4.M
cis-1,2-Dichloroethene	156-59-2	5.00	<5.00	ug/L	
cis-1,3-Dichloropropene	10061-01-5	5.00	<5.00	ug/L	
Dibromochloromethane	124-48-1	5.00	<5.00	ug/L	
Dibromomethane	74-95-3	5.00	<5.00	ug/L	
Dichlorodifluoromethane	75-71-8	5.00	<5.00	ug/L	
Ethylbenzene	100-41-4	5.00	<5.00	ug/L	
Hexachlorobutadiene	87-68-3	5.00	<5.00	ug/L	
Isopropylbenzene (Cumene)	98-82-8	5.00	<5.00	ug/L	4.N
m,p-Xylenes	108-38-3/106-42-3	10.0	<10.0	ug/L	
Methyl Acetate	79-20-9	5.00	<5.00	ug/L	4.K, 4.M
Methyl Butyl Ketone (2-Hexanone)	591-78-6	10.0	<10.0	ug/L	
Methyl Ethyl Ketone (2-Butanone)	78-93-3	10.0	<10.0	ug/L	

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 09:15	Sample ID: MW-1
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-01
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Methylene Chloride	75-09-2	5.00	<5.00	ug/L	4.K, 4.M
Methyl-tert-Butyl Ether	1634-04-4	5.00	<5.00	ug/L	
Naphthalene	91-20-3	5.00	<5.00	ug/L	4.J
n-Butylbenzene	104-51-8	5.00	<5.00	ug/L	
n-Propylbenzene	103-65-1	5.00	<5.00	ug/L	
o-Xylene	95-47-6	5.00	<5.00	ug/L	4.N
sec-Butylbenzene	135-98-8	5.00	<5.00	ug/L	
Styrene	100-42-5	5.00	<5.00	ug/L	
tert-Butyl alcohol	75-65-0	5.00	<5.00	ug/L	4.K
tert-Butylbenzene	98-06-6	5.00	<5.00	ug/L	
Tetrachloroethene	127-18-4	5.00	<5.00	ug/L	
Toluene	108-88-3	5.00	<5.00	ug/L	
trans-1,2-Dichloroethene	156-60-5	5.00	<5.00	ug/L	
trans-1,3-Dichloropropene	10061-02-6	5.00	<5.00	ug/L	
Trichloroethene	79-01-6	5.00	<5.00	ug/L	
Trichlorofluoromethane	75-69-4	5.00	<5.00	ug/L	
Vinyl Acetate	108-05-4	5.00	<5.00	ug/L	
Vinyl chloride	75-01-4	5.00	<5.00	ug/L	4.K, 4.M

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
1,2-Dichloroethane-d4	10706-07-0	109	74.4-131	
4-Bromofluorobenzene	460-00-4	108	82.3-134	
Dibromofluoromethane	1868-53-7	103	79.4-122	
Toluene-d8	2037-26-5	101	85-123	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	72	50-200	
1,4-Difluorobenzene	540-36-3	91	50-200	
Chlorobenzene-d5	3114-55-4	82	50-200	
Pentafluorobenzene	363-72-4	115	50-200	

Date Prepared: 12/03/2020

Preparation Method: EPA 5030 C

Date Analyzed: 12/03/2020

Analytical Method: EPA 8260 D

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 09:15	Sample ID: MW-1
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-01
Matrix: Non-Potable Water	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,4-Dioxane	123-91-1	0.07	<0.07	ug/L	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dioxane-d8	17647-74-4	74	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Tetrahydrofuran-d8	1693-74-9		0-200	

Date Prepared: 12/07/2020

Preparation Method: *** DEFAULT PREP ***

Date Analyzed: 12/07/2020

Analytical Method: EPA 522

Parameter	CAS No.	LOQ	Result	Units	Flag
6:2 FTS	27619-97-2	2.00	<2.00	ng/L	2.B, 4.G, 4.J, 4.N
8:2 FTS	39108-34-4	2.00	<2.00	ng/L	4.G, 2.B, 4.J, 4.N
N-ethylperfluorooctanesulfonamidoacetic Acid	2991-50-6	2.00	<2.00	ng/L	4.G, 2.B
N-methylperfluorooctanesulfonamidoacetic Acid	2355-31-9	2.00	<2.00	ng/L	4.G, 2.B
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	2.00	<2.00	ng/L	4.J, 2.B
Perfluorobutanoic Acid (PFBA)	375-22-4	2.00	<2.00	ng/L	4.G, 4.N, 2.B
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	2.00	<2.00	ng/L	4.G, 2.B
Perfluorodecanoic Acid (PFDA)	335-76-2	2.00	<2.00	ng/L	2.B
Perfluorododecanoic Acid (PFDoA)	307-55-1	2.00	<2.00	ng/L	4.G, 2.B, 4.J
Perfluoroheptanesulfonic Acid (PFBHpS)	375-92-8	2.00	<2.00	ng/L	2.B
Perfluoroheptanoic Acid (PFHpA)	375-85-9	2.00	<2.00	ng/L	2.B
Perfluorohexanesulfonic Acid (PFBHxS)	355-46-4	2.00	<2.00	ng/L	4.J, 2.B
Perfluorohexanoic Acid (PFHxA)	307-24-4	2.00	<2.00	ng/L	4.J, 2.B
Perfluorononanoic Acid (PFNA)	375-95-1	2.00	<2.00	ng/L	2.B
Perfluorooctanesulfonamide (FOSA)	754-91-6	2.00	<2.00	ng/L	4.K, 4.N, 4.G, 2.B
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	2.00	<2.00	ng/L	2.B
Perfluorooctanoic Acid (PFOA)	335-67-1	2.00	2.89	ng/L	2.B
Perfluoropentanoic Acid (PFPeA)	2706-90-3	2.00	<2.00	ng/L	4.G, 4.N, 2.B
Perfluorotetradecanoic Acid (PFTeA)	376-06-7	2.00	<2.00	ng/L	2.B
Perfluorotridecanoic Acid (PFTriA)	72629-94-8	2.00	<2.00	ng/L	4.G, 2.B
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	2.00	<2.00	ng/L	4.G, 2.B

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
d5-N-EtFOSAA	2991-50-6	43	70-130	4.D, 2.B
MPFDA	N/A	53	70-130	4.D, 2.B
MPFHxA	N/A	80	70-130	2.B

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 09:15	Sample ID: MW-1
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-01
Matrix: Non-Potable Water	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
d3-N-MeFOSAA	2355-31-9		70-140	2.B
M2PFOA			70-140	2.B
MPFOS	960315-53-1		70-140	2.B

Date Prepared: 12/07/2020

Preparation Method: EPA 537.1

Date Analyzed: 12/10/2020

Analytical Method: EPA 537.1

Parameter	CAS No.	LOQ	Result	Units	Flag
1,2,4-Trichlorobenzene	120-82-1	5.00	<5.00	ug/L	
1,2-Dichlorobenzene	95-50-1	5.00	<5.00	ug/L	
1,3-Dichlorobenzene	541-73-1	5.00	<5.00	ug/L	
1,4-Dichlorobenzene	106-46-7	5.00	<5.00	ug/L	
2,2'-Oxybis(1-Chloropropane)	108-60-1	5.00	<5.00	ug/L	
2,4,5-Trichlorophenol	95-95-4	5.00	<5.00	ug/L	
2,4,6-Trichlorophenol	88-06-2	5.00	<5.00	ug/L	
2,4-Dichlorophenol	120-83-2	5.00	<5.00	ug/L	
2,4-Dimethylphenol	105-67-9	5.00	<5.00	ug/L	
2,4-Dinitrophenol	51-28-5	10.0	<10.0	ug/L	
2,4-Dinitrotoluene	121-14-2	5.00	<5.00	ug/L	
2,6-Dinitrotoluene	606-20-2	5.00	<5.00	ug/L	
2-Chloronaphthalene	91-58-7	5.00	<5.00	ug/L	
2-Chlorophenol	95-57-8	5.00	<5.00	ug/L	
2-Methylnaphthalene	91-57-6	5.00	<5.00	ug/L	
2-Methylphenol	95-48-7	5.00	<5.00	ug/L	
2-Nitroaniline	88-74-4	5.00	<5.00	ug/L	
2-Nitrophenol	88-75-5	5.00	<5.00	ug/L	
3,3'-Dichlorobenzidine	91-94-1	5.00	<5.00	ug/L	
3/4-Methylphenol	108-39-4/106-44-5	5.00	<5.00	ug/L	
3-Nitroaniline	99-09-2	5.00	<5.00	ug/L	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	<10.0	ug/L	4.G
4-Bromophenyl phenyl ether	101-55-3	5.00	<5.00	ug/L	
4-Chloro-3-methylphenol	59-50-7	5.00	<5.00	ug/L	
4-Chloroaniline	106-47-8	5.00	<5.00	ug/L	
4-Chlorophenyl phenyl ether	7005-72-3	5.00	<5.00	ug/L	
4-Nitroaniline	100-01-6	5.00	<5.00	ug/L	

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 09:15	Sample ID: MW-1
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-01
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
4-Nitrophenol	100-02-7	5.00	5.24	ug/L	
Acenaphthene	83-32-9	5.00	<5.00	ug/L	
Acenaphthylene	208-96-8	5.00	<5.00	ug/L	
Aniline	62-53-3	5.00	<5.00	ug/L	
Anthracene	120-12-7	5.00	<5.00	ug/L	
Benzo(a)anthracene	56-55-3	5.00	<5.00	ug/L	
Benzo(a)pyrene	50-32-8	5.00	<5.00	ug/L	
Benzo(b)fluoranthene	205-99-2	5.00	<5.00	ug/L	
Benzo(g,h,i)perylene	191-24-2	5.00	<5.00	ug/L	4.J
Benzo(k)fluoranthene	207-08-9	5.00	<5.00	ug/L	
Benzoic Acid	65-85-0	10.0	<10.0	ug/L	4.K, 4.G
Benzyl alcohol	100-51-6	5.00	<5.00	ug/L	4.J
bis(2-Chloroethoxy)methane	111-91-1	5.00	<5.00	ug/L	
Bis(2-Chloroethyl)ether	111-44-4	5.00	<5.00	ug/L	
Bis(2-Ethylhexyl)phthalate	117-81-7	5.00	<5.00	ug/L	
Butyl benzyl phthalate	85-68-7	5.00	<5.00	ug/L	
Carbazole	86-74-8	5.00	<5.00	ug/L	
Chrysene	218-01-9	5.00	<5.00	ug/L	
Dibenzo(a,h)anthracene	53-70-3	5.00	<5.00	ug/L	4.J
Dibenzofuran	132-64-9	5.00	<5.00	ug/L	
Diethyl phthalate	84-66-2	5.00	13.6	ug/L	
Dimethyl phthalate	131-11-3	5.00	<5.00	ug/L	
Di-n-butyl phthalate	84-74-2	5.00	<5.00	ug/L	
Di-n-octyl phthalate	117-84-0	5.00	<5.00	ug/L	
Fluoranthene	206-44-0	5.00	<5.00	ug/L	
Fluorene	86-73-7	5.00	<5.00	ug/L	
Hexachlorobenzene	118-74-1	5.00	<5.00	ug/L	
Hexachlorobutadiene	87-68-3	5.00	<5.00	ug/L	
Hexachlorocyclopentadiene	77-47-4	5.00	<5.00	ug/L	

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 09:15	Sample ID: MW-1
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-01
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Hexachloroethane	67-72-1	5.00	<5.00	ug/L	
Indeno(1,2,3-cd)pyrene	193-39-5	5.00	<5.00	ug/L	4.J
Isophorone	78-59-1	5.00	<5.00	ug/L	
Naphthalene	91-20-3	5.00	<5.00	ug/L	
Nitrobenzene	98-95-3	5.00	<5.00	ug/L	
N-Nitrosodimethylamine	62-75-9	5.00	<5.00	ug/L	
N-Nitroso-di-n-propylamine	621-64-7	5.00	8.48	ug/L	
N-Nitrosodiphenylamine	86-30-6	5.00	<5.00	ug/L	
Pentachlorophenol	87-86-5	5.00	<5.00	ug/L	
Phenanthrene	85-01-8	5.00	<5.00	ug/L	
Phenol	108-95-2	5.00	<5.00	ug/L	4.G
Pyrene	129-00-0	5.00	<5.00	ug/L	
Pyridine	110-86-1	10.0	<10.0	ug/L	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	58	38.5-145	
2-Fluorobiphenyl	321-60-8	55	40.4-114	
2-Fluorophenol	367-12-4	32	12.7-89.3	
Nitrobenzene-d5	4165-60-0	58	47.3-131	
Phenol-d6	13127-88-3	26	7.73-72.3	
Terphenyl-d14	1718-51-0	51	45.7-139	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	125	50-200	
Acenaphthene-d10	15067-26-2	117	50-200	
Chrysene-d12	1719-03-5	117	50-200	
Naphthalene-d8	1146-65-2	121	50-200	
Perylene-d12	1520-96-3	130	50-200	
Phenanthrene-d10	1517-22-2	116	50-200	

Date Prepared: 12/03/2020

Preparation Method: EPA 3510 C

Date Analyzed: 12/04/2020

Analytical Method: EPA 8270 E

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 09:15	Sample ID: MW-1
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-01
Matrix: Non-Potable Water	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	2.00	<2.00	ug/L	
4,4'-DDE	72-55-9	2.00	<2.00	ug/L	
4,4'-DDT	50-29-3	2.00	<2.00	ug/L	
Aldrin	309-00-2	2.00	<2.00	ug/L	
alpha-BHC	319-84-6	2.00	<2.00	ug/L	
beta-BHC	319-85-7	2.00	<2.00	ug/L	
Chlordane	12789-03-6	2.00	<2.00	ug/L	
cis-Chlordane	5103-71-9	2.00	<2.00	ug/L	
delta-BHC	319-86-8	2.00	<2.00	ug/L	
Dieldrin	60-57-1	2.00	<2.00	ug/L	
Endosulfan I	959-98-8	2.00	<2.00	ug/L	
Endosulfan II	33213-65-9	2.00	<2.00	ug/L	
Endosulfan Sulfate	1031-07-8	2.00	<2.00	ug/L	
Endrin	72-20-8	2.00	<2.00	ug/L	
Endrin Aldehyde	7421-93-4	2.00	<2.00	ug/L	
Endrin Ketone	53494-70-5	2.00	<2.00	ug/L	
gamma-BHC	58-89-9	2.00	<2.00	ug/L	
Heptachlor	76-44-8	2.00	<2.00	ug/L	
Heptachlor Epoxide	1024-57-3	2.00	<2.00	ug/L	
Methoxychlor	72-43-5	2.00	<2.00	ug/L	
Toxaphene	8001-35-2	2.00	<2.00	ug/L	
trans-Chlordane	5103-74-2	2.00	<2.00	ug/L	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	118	57.4-130	
Tetrachloro-m-xylene	877-09-8	58	51.9-129	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	98	50-200	

Date Prepared: 12/07/2020

Preparation Method: EPA 3510 C

Date Analyzed: 12/09/2020

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 09:15	Sample ID: MW-1
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-01
Matrix: Non-Potable Water	ELAP: #11693

Herbicide Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2,4,5-T	93-76-5	1.00	<1.00	ug/L	
2,4,5-TP (Silvex)	93-72-1	1.00	<1.00	ug/L	
2,4-D	94-75-7	5.00	<5.00	ug/L	
Dicamba	1918-00-9	5.00	<5.00	ug/L	

Date Prepared: 12/04/2020

Preparation Method: EPA 3510 C

Date Analyzed: 12/07/2020

Analytical Method: EPA 8151 A

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 09:15	Sample ID: MW-1
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-01
Matrix: Non-Potable Water	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Aluminum	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.25	<0.25	mg/L	
Antimony	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Arsenic	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Barium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Beryllium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.02	<0.02	mg/L	
Cadmium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Calcium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.15	4.98	mg/L	
Chromium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Cobalt	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Copper	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Iron	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.20	<0.20	mg/L	
Lead	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Magnesium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.10	1.05	mg/L	
Manganese	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	0.92	mg/L	
Nickel	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Potassium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.25	2.29	mg/L	
Selenium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Silver	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Sodium	12/10/2020	EPA 200.7, Rev. 4.4(1994)	0.25	5.42	mg/L	
Thallium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Vanadium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Zinc	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	

Date Prepared: 12/04/2020 Preparation Method: EPA 200.2

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	12/10/2020	EPA 245.1, Rev. 3.0(1994)	0.002	<0.002	mg/L	

Date Prepared: 12/04/2020 Preparation Method: EPA 245.1

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 10:23	Sample ID: MW-3
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-02
Matrix: Non-Potable Water	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1,2-Tetrachloroethane	630-20-6	5.00	<5.00	ug/L	
1,1,1-Trichloroethane	71-55-6	5.00	<5.00	ug/L	
1,1,2,2-Tetrachloroethane	79-34-5	5.00	<5.00	ug/L	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5.00	<5.00	ug/L	4.K, 4.M
1,1,2-Trichloroethane	79-00-5	5.00	<5.00	ug/L	
1,1-Dichloroethane	75-34-3	5.00	<5.00	ug/L	
1,1-Dichloroethene	75-35-4	5.00	<5.00	ug/L	
1,1-Dichloropropene	563-58-6	5.00	<5.00	ug/L	
1,2,3-Trichlorobenzene	87-61-6	5.00	<5.00	ug/L	
1,2,3-Trichloropropane	96-18-4	5.00	<5.00	ug/L	4.N
1,2,4,5-Tetramethylbenzene	95-93-2	5.00	<5.00	ug/L	2.B
1,2,4-Trichlorobenzene	120-82-1	5.00	<5.00	ug/L	
1,2,4-Trimethylbenzene	95-63-6	5.00	<5.00	ug/L	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	<5.00	ug/L	
1,2-Dibromoethane	106-93-4	5.00	<5.00	ug/L	
1,2-Dichlorobenzene	95-50-1	5.00	<5.00	ug/L	
1,2-Dichloroethane	107-06-2	5.00	<5.00	ug/L	
1,2-Dichloropropane	78-87-5	5.00	<5.00	ug/L	
1,3,5-Trimethylbenzene	108-67-8	5.00	<5.00	ug/L	
1,3-Dichlorobenzene	541-73-1	5.00	<5.00	ug/L	
1,3-Dichloropropane	142-28-9	5.00	<5.00	ug/L	
1,4-Dichlorobenzene	106-46-7	5.00	<5.00	ug/L	
1,4-Diethylbenzene	105-05-5	5.00	<5.00	ug/L	2.B
1,4-Dioxane	123-91-1	100	<100	ug/L	
2,2-Dichloropropane	594-20-7	5.00	<5.00	ug/L	
2-Chloroethyl Vinyl Ether	110-75-8	5.00	<5.00	ug/L	4.J, 4.N
2-Chlorotoluene	95-49-8	5.00	<5.00	ug/L	
4-Chlorotoluene	106-43-4	5.00	<5.00	ug/L	
4-Ethyltoluene	622-96-8	5.00	<5.00	ug/L	2.B
4-Isopropyltoluene	99-87-6	5.00	<5.00	ug/L	

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 10:23	Sample ID: MW-3
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-02
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
4-Methyl-2-Pentanone	108-10-1	5.00	<5.00	ug/L	
Acetone	67-64-1	10.0	<10.0	ug/L	
Acrolein	107-02-8	5.00	<5.00	ug/L	
Acrylonitrile	107-13-1	5.00	<5.00	ug/L	4.K
Benzene	71-43-2	5.00	<5.00	ug/L	
Bromobenzene	108-86-1	5.00	<5.00	ug/L	
Bromochloromethane	74-97-5	5.00	<5.00	ug/L	
Bromodichloromethane	75-27-4	5.00	<5.00	ug/L	
Bromoform	75-25-2	5.00	<5.00	ug/L	
Bromomethane	74-83-9	5.00	<5.00	ug/L	4.K, 4.M
Carbon disulfide	75-15-0	5.00	<5.00	ug/L	
Carbon Tetrachloride	56-23-5	5.00	<5.00	ug/L	
Chlorobenzene	108-90-7	5.00	<5.00	ug/L	
Chlorodifluoromethane	75-45-6	5.00	<5.00	ug/L	2.B, 4.K, 4.M
Chloroethane	75-00-3	5.00	<5.00	ug/L	4.K, 4.M
Chloroform	67-66-3	5.00	<5.00	ug/L	
Chloromethane	74-87-3	5.00	<5.00	ug/L	4.K, 4.M
cis-1,2-Dichloroethene	156-59-2	5.00	<5.00	ug/L	
cis-1,3-Dichloropropene	10061-01-5	5.00	<5.00	ug/L	
Dibromochloromethane	124-48-1	5.00	<5.00	ug/L	
Dibromomethane	74-95-3	5.00	<5.00	ug/L	
Dichlorodifluoromethane	75-71-8	5.00	<5.00	ug/L	
Ethylbenzene	100-41-4	5.00	<5.00	ug/L	
Hexachlorobutadiene	87-68-3	5.00	<5.00	ug/L	
Isopropylbenzene (Cumene)	98-82-8	5.00	<5.00	ug/L	4.N
m,p-Xylenes	108-38-3/106-42-3	10.0	<10.0	ug/L	
Methyl Acetate	79-20-9	5.00	<5.00	ug/L	4.K, 4.M
Methyl Butyl Ketone (2-Hexanone)	591-78-6	10.0	<10.0	ug/L	
Methyl Ethyl Ketone (2-Butanone)	78-93-3	10.0	<10.0	ug/L	

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 10:23	Sample ID: MW-3
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-02
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Methylene Chloride	75-09-2	5.00	<5.00	ug/L	4.K, 4.M
Methyl-tert-Butyl Ether	1634-04-4	5.00	<5.00	ug/L	
Naphthalene	91-20-3	5.00	<5.00	ug/L	4.J
n-Butylbenzene	104-51-8	5.00	<5.00	ug/L	
n-Propylbenzene	103-65-1	5.00	<5.00	ug/L	
o-Xylene	95-47-6	5.00	<5.00	ug/L	4.N
sec-Butylbenzene	135-98-8	5.00	<5.00	ug/L	
Styrene	100-42-5	5.00	<5.00	ug/L	
tert-Butyl alcohol	75-65-0	5.00	<5.00	ug/L	4.K
tert-Butylbenzene	98-06-6	5.00	<5.00	ug/L	
Tetrachloroethene	127-18-4	5.00	<5.00	ug/L	
Toluene	108-88-3	5.00	<5.00	ug/L	
trans-1,2-Dichloroethene	156-60-5	5.00	<5.00	ug/L	
trans-1,3-Dichloropropene	10061-02-6	5.00	<5.00	ug/L	
Trichloroethene	79-01-6	5.00	<5.00	ug/L	
Trichlorofluoromethane	75-69-4	5.00	<5.00	ug/L	
Vinyl Acetate	108-05-4	5.00	<5.00	ug/L	
Vinyl chloride	75-01-4	5.00	<5.00	ug/L	4.K, 4.M

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
1,2-Dichloroethane-d4	10706-07-0	108	74.4-131	
4-Bromofluorobenzene	460-00-4	108	82.3-134	
Dibromofluoromethane	1868-53-7	101	79.4-122	
Toluene-d8	2037-26-5	104	85-123	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	70	50-200	
1,4-Difluorobenzene	540-36-3	91	50-200	
Chlorobenzene-d5	3114-55-4	80	50-200	
Pentafluorobenzene	363-72-4	118	50-200	

Date Prepared: 12/03/2020

Preparation Method: EPA 5030 C

Date Analyzed: 12/03/2020

Analytical Method: EPA 8260 D

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 10:23	Sample ID: MW-3
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-02
Matrix: Non-Potable Water	ELAP: #11693

Semivolatile Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,4-Dioxane	123-91-1	0.07	<0.07	ug/L	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dioxane-d8	17647-74-4	74	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
Tetrahydrofuran-d8	1693-74-9		0-200	

Date Prepared: 12/07/2020

Preparation Method: *** DEFAULT PREP ***

Date Analyzed: 12/07/2020

Analytical Method: EPA 522

Parameter	CAS No.	LOQ	Result	Units	Flag
6:2 FTS	27619-97-2	2.00	<2.00	ng/L	2.B, 4.J, 4.N
8:2 FTS	39108-34-4	2.00	<2.00	ng/L	4.J, 4.N, 2.B
N-ethylperfluorooctanesulfonamidoacetic Acid	2991-50-6	2.00	<2.00	ng/L	2.B
N-methylperfluorooctanesulfonamidoacetic Acid	2355-31-9	2.00	<2.00	ng/L	2.B
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	2.00	<2.00	ng/L	4.J, 2.B
Perfluorobutanoic Acid (PFBA)	375-22-4	2.00	<2.00	ng/L	2.B, 4.N
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	2.00	<2.00	ng/L	2.B
Perfluorodecanoic Acid (PFDA)	335-76-2	2.00	<2.00	ng/L	2.B
Perfluorododecanoic Acid (PFDoA)	307-55-1	2.00	<2.00	ng/L	4.J, 2.B
Perfluoroheptanesulfonic Acid (PFBHpS)	375-92-8	2.00	<2.00	ng/L	2.B
Perfluoroheptanoic Acid (PFHpA)	375-85-9	2.00	2.42	ng/L	2.B
Perfluorohexanesulfonic Acid (PFBHxS)	355-46-4	2.00	<2.00	ng/L	4.J, 2.B
Perfluorohexanoic Acid (PFHxA)	307-24-4	2.00	3.34	ng/L	4.J, 2.B
Perfluorononanoic Acid (PFNA)	375-95-1	2.00	<2.00	ng/L	2.B
Perfluorooctanesulfonamide (FOSA)	754-91-6	2.00	<2.00	ng/L	2.B, 4.K, 4.N
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	2.00	<2.00	ng/L	2.B
Perfluorooctanoic Acid (PFOA)	335-67-1	2.00	<2.00	ng/L	2.B
Perfluoropentanoic Acid (PFPeA)	2706-90-3	2.00	<2.00	ng/L	2.B, 4.N
Perfluorotetradecanoic Acid (PFTeA)	376-06-7	2.00	<2.00	ng/L	2.B
Perfluorotridecanoic Acid (PFTriA)	72629-94-8	2.00	<2.00	ng/L	2.B
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	2.00	<2.00	ng/L	2.B

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
d5-N-EtFOSAA	2991-50-6	78	70-130	2.B
MPFDA	N/A	90	70-130	2.B
MPFHxA	N/A	85	70-130	2.B

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 10:23	Sample ID: MW-3
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-02
Matrix: Non-Potable Water	ELAP: #11693

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
d3-N-MeFOSAA	2355-31-9		70-140	2.B
M2PFOA			70-140	2.B
MPFOS	960315-53-1		70-140	2.B

Date Prepared: 12/07/2020

Preparation Method: EPA 537.1

Date Analyzed: 12/10/2020

Analytical Method: EPA 537.1

Parameter	CAS No.	LOQ	Result	Units	Flag
1,2,4-Trichlorobenzene	120-82-1	5.00	<5.00	ug/L	
1,2-Dichlorobenzene	95-50-1	5.00	<5.00	ug/L	
1,3-Dichlorobenzene	541-73-1	5.00	<5.00	ug/L	
1,4-Dichlorobenzene	106-46-7	5.00	<5.00	ug/L	
2,2'-Oxybis(1-Chloropropane)	108-60-1	5.00	<5.00	ug/L	
2,4,5-Trichlorophenol	95-95-4	5.00	<5.00	ug/L	
2,4,6-Trichlorophenol	88-06-2	5.00	<5.00	ug/L	
2,4-Dichlorophenol	120-83-2	5.00	<5.00	ug/L	
2,4-Dimethylphenol	105-67-9	5.00	<5.00	ug/L	
2,4-Dinitrophenol	51-28-5	10.0	<10.0	ug/L	
2,4-Dinitrotoluene	121-14-2	5.00	<5.00	ug/L	
2,6-Dinitrotoluene	606-20-2	5.00	<5.00	ug/L	
2-Chloronaphthalene	91-58-7	5.00	<5.00	ug/L	
2-Chlorophenol	95-57-8	5.00	<5.00	ug/L	
2-Methylnaphthalene	91-57-6	5.00	<5.00	ug/L	
2-Methylphenol	95-48-7	5.00	<5.00	ug/L	
2-Nitroaniline	88-74-4	5.00	<5.00	ug/L	
2-Nitrophenol	88-75-5	5.00	<5.00	ug/L	
3,3'-Dichlorobenzidine	91-94-1	5.00	<5.00	ug/L	
3/4-Methylphenol	108-39-4/106-44-5	5.00	<5.00	ug/L	
3-Nitroaniline	99-09-2	5.00	<5.00	ug/L	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	<10.0	ug/L	
4-Bromophenyl phenyl ether	101-55-3	5.00	<5.00	ug/L	
4-Chloro-3-methylphenol	59-50-7	5.00	<5.00	ug/L	
4-Chloroaniline	106-47-8	5.00	<5.00	ug/L	
4-Chlorophenyl phenyl ether	7005-72-3	5.00	<5.00	ug/L	
4-Nitroaniline	100-01-6	5.00	<5.00	ug/L	

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 10:23	Sample ID: MW-3
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-02
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
4-Nitrophenol	100-02-7	5.00	<5.00	ug/L	
Acenaphthene	83-32-9	5.00	<5.00	ug/L	
Acenaphthylene	208-96-8	5.00	<5.00	ug/L	
Aniline	62-53-3	5.00	<5.00	ug/L	
Anthracene	120-12-7	5.00	<5.00	ug/L	
Benzo(a)anthracene	56-55-3	5.00	<5.00	ug/L	
Benzo(a)pyrene	50-32-8	5.00	<5.00	ug/L	
Benzo(b)fluoranthene	205-99-2	5.00	<5.00	ug/L	
Benzo(g,h,i)perylene	191-24-2	5.00	<5.00	ug/L	4.J
Benzo(k)fluoranthene	207-08-9	5.00	<5.00	ug/L	
Benzoic Acid	65-85-0	10.0	<10.0	ug/L	4.K
Benzyl alcohol	100-51-6	5.00	<5.00	ug/L	4.J
bis(2-Chloroethoxy)methane	111-91-1	5.00	<5.00	ug/L	
Bis(2-Chloroethyl)ether	111-44-4	5.00	<5.00	ug/L	
Bis(2-Ethylhexyl)phthalate	117-81-7	5.00	<5.00	ug/L	
Butyl benzyl phthalate	85-68-7	5.00	<5.00	ug/L	
Carbazole	86-74-8	5.00	<5.00	ug/L	
Chrysene	218-01-9	5.00	<5.00	ug/L	
Dibenzo(a,h)anthracene	53-70-3	5.00	<5.00	ug/L	4.J
Dibenzofuran	132-64-9	5.00	<5.00	ug/L	
Diethyl phthalate	84-66-2	5.00	<5.00	ug/L	
Dimethyl phthalate	131-11-3	5.00	<5.00	ug/L	
Di-n-butyl phthalate	84-74-2	5.00	<5.00	ug/L	
Di-n-octyl phthalate	117-84-0	5.00	<5.00	ug/L	
Fluoranthene	206-44-0	5.00	<5.00	ug/L	
Fluorene	86-73-7	5.00	<5.00	ug/L	
Hexachlorobenzene	118-74-1	5.00	<5.00	ug/L	
Hexachlorobutadiene	87-68-3	5.00	<5.00	ug/L	
Hexachlorocyclopentadiene	77-47-4	5.00	<5.00	ug/L	

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 10:23	Sample ID: MW-3
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-02
Matrix: Non-Potable Water	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Hexachloroethane	67-72-1	5.00	<5.00	ug/L	
Indeno(1,2,3-cd)pyrene	193-39-5	5.00	<5.00	ug/L	4.J
Isophorone	78-59-1	5.00	<5.00	ug/L	
Naphthalene	91-20-3	5.00	<5.00	ug/L	
Nitrobenzene	98-95-3	5.00	<5.00	ug/L	
N-Nitrosodimethylamine	62-75-9	5.00	<5.00	ug/L	
N-Nitroso-di-n-propylamine	621-64-7	5.00	<5.00	ug/L	
N-Nitrosodiphenylamine	86-30-6	5.00	<5.00	ug/L	
Pentachlorophenol	87-86-5	5.00	<5.00	ug/L	
Phenanthrene	85-01-8	5.00	<5.00	ug/L	
Phenol	108-95-2	5.00	<5.00	ug/L	
Pyrene	129-00-0	5.00	<5.00	ug/L	
Pyridine	110-86-1	10.0	<10.0	ug/L	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
2,4,6-Tribromophenol	118-79-6	74	38.5-145	
2-Fluorobiphenyl	321-60-8	66	40.4-114	
2-Fluorophenol	367-12-4	39	12.7-89.3	
Nitrobenzene-d5	4165-60-0	68	47.3-131	
Phenol-d6	13127-88-3	30	7.73-72.3	
Terphenyl-d14	1718-51-0	74	45.7-139	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Dichlorobenzene-d4	3855-82-1	113	50-200	
Acenaphthene-d10	15067-26-2	110	50-200	
Chrysene-d12	1719-03-5	110	50-200	
Naphthalene-d8	1146-65-2	116	50-200	
Perylene-d12	1520-96-3	123	50-200	
Phenanthrene-d10	1517-22-2	110	50-200	

Date Prepared: 12/03/2020

Preparation Method: EPA 3510 C

Date Analyzed: 12/04/2020

Analytical Method: EPA 8270 E

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 10:23	Sample ID: MW-3
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-02
Matrix: Non-Potable Water	ELAP: #11693

Pesticides Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
4,4'-DDD	72-54-8	2.00	<2.00	ug/L	
4,4'-DDE	72-55-9	2.00	<2.00	ug/L	
4,4'-DDT	50-29-3	2.00	<2.00	ug/L	
Aldrin	309-00-2	2.00	<2.00	ug/L	
alpha-BHC	319-84-6	2.00	<2.00	ug/L	
beta-BHC	319-85-7	2.00	<2.00	ug/L	
Chlordane	12789-03-6	2.00	<2.00	ug/L	
cis-Chlordane	5103-71-9	2.00	<2.00	ug/L	
delta-BHC	319-86-8	2.00	<2.00	ug/L	
Dieldrin	60-57-1	2.00	<2.00	ug/L	
Endosulfan I	959-98-8	2.00	<2.00	ug/L	
Endosulfan II	33213-65-9	2.00	<2.00	ug/L	
Endosulfan Sulfate	1031-07-8	2.00	<2.00	ug/L	
Endrin	72-20-8	2.00	<2.00	ug/L	
Endrin Aldehyde	7421-93-4	2.00	<2.00	ug/L	
Endrin Ketone	53494-70-5	2.00	<2.00	ug/L	
gamma-BHC	58-89-9	2.00	<2.00	ug/L	
Heptachlor	76-44-8	2.00	<2.00	ug/L	
Heptachlor Epoxide	1024-57-3	2.00	<2.00	ug/L	
Methoxychlor	72-43-5	2.00	<2.00	ug/L	
Toxaphene	8001-35-2	2.00	<2.00	ug/L	
trans-Chlordane	5103-74-2	2.00	<2.00	ug/L	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
Decachlorobiphenyl	2051-24-3	110	57.4-130	
Tetrachloro-m-xylene	877-09-8	71	51.9-129	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1-Bromo-2-Nitrobenzene	108-31-6	101	50-200	

Date Prepared: 12/07/2020

Preparation Method: EPA 3510 C

Date Analyzed: 12/09/2020

Analytical Method: EPA 8081 B

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 10:23	Sample ID: MW-3
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-02
Matrix: Non-Potable Water	ELAP: #11693

Herbicide Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
2,4,5-T	93-76-5	1.00	<1.00	ug/L	
2,4,5-TP (Silvex)	93-72-1	1.00	<1.00	ug/L	
2,4-D	94-75-7	5.00	<5.00	ug/L	
Dicamba	1918-00-9	5.00	<5.00	ug/L	

Date Prepared: 12/04/2020

Preparation Method: EPA 3510 C

Date Analyzed: 12/07/2020

Analytical Method: EPA 8151 A

Client: Nelson, Pope & Voorhis	Client ID: 1792 Middle Road
Date (Time) Collected: 12/02/2020 10:23	Sample ID: MW-3
Date (Time) Received: 12/02/2020 11:45	Laboratory ID: 0120213-02
Matrix: Non-Potable Water	ELAP: #11693

Total Metals Analysis

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Aluminum	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.25	<0.25	mg/L	
Antimony	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Arsenic	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Barium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Beryllium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.02	<0.02	mg/L	
Cadmium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Calcium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.15	25.6	mg/L	
Chromium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Cobalt	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Copper	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Iron	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.20	<0.20	mg/L	
Lead	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Magnesium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.10	4.14	mg/L	
Manganese	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	0.69	mg/L	
Nickel	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Potassium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.25	3.68	mg/L	
Selenium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Silver	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Sodium	12/10/2020	EPA 200.7, Rev. 4.4(1994)	0.25	7.92	mg/L	
Thallium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Vanadium	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	
Zinc	12/09/2020	EPA 200.7, Rev. 4.4(1994)	0.05	<0.05	mg/L	

Date Prepared: 12/04/2020 Preparation Method: EPA 200.2

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Mercury	12/10/2020	EPA 245.1, Rev. 3.0(1994)	0.002	<0.002	mg/L	

Date Prepared: 12/04/2020 Preparation Method: EPA 245.1

Data Qualifiers Key Reference:

2.B	Parameter not certifiable by NELAP.
4.D	Surrogate recovery has failed low.
4.G	Spike recovery out of range due to matrix interference.
4.J	Continuing Calibration Verification (CCV) quality control levels failed low, values are considered to be estimated.
4.K	Continuing Calibration Verification (CCV) quality control levels failed high, values are considered to be estimated.
4.M	LCS recovery was above QC acceptance limit.
4.N	LCS recovery was below QC acceptance limit.
MDL	Minimum Detection Limit
LOQ	Limit of Quantitation

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: NBV, 70 MAXESS ROAD, MELVILLE, NY 11747
CONTACT: ERIC LAMBERSON
PHONE: (631-427-5665
EMAIL:
PROJECT LOCATION: 1792 MIDDLE ROAD
SAMPLER (SIGNATURE): Eric C
SAMPLER NAME (PRINT): ERIC LAMBERSON
SAMPLE(S) SEALED: YES / NO
CORRECT CONTAINER(S): YES / NO
L 0120213
SAMPLES RECEIVED AT: 1.7 °C

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # LOCATION	ANALYSIS REQUIRED: 8260	8270	8081	8151	6010	PFOS	PFOA	537	# OF CONTAINERS
1. 0120213-01	DW	G	-	-	ICE	12/2/20	9:15	MW-1	X	X	X	X	X	X	X	X	9
2. ↓ 02	DW	G	-	-	ICE	12/2/20	10:23	MW-3	X	X	X	X	X	X	X	X	9
3.																	
4.																	
5.																	
6.																	
7.								Sample Preserved w/HNO3 By: CLIENT									
8.																	
9.																	
10.																	
11.																	
12.																	
13.																	
14.																	

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_3O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: [X] NORMAL [ ] STAT BY / /

COMMENTS / INSTRUCTIONS

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY (SIGNATURE)	DATE / TIME	PRINTED NAME
Eric C	12/2/20 11:43	ERIC LAMBERSON		12-2-20 1454	BEN LAMBERSON
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY SAMPLE CUSTODIAN	DATE 12-2-20 TIME 1351	PRINTED NAME BEN LAMBERSON

WHITE - OFFICE / CANARY - CLIENT

APPENDIX E
ECOLOGY-RELATED DOCUMENTS

APPENDIX E-1
BREEDING BIRD 2000-2005 ATLAS

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NYS Breeding Bird Atlas

Block 6853D

2000-2005

ATLAS 2000

Navigation Tools

- Perform Another Search
- Show All Records
- Sort by Field Card Order
- Sort by Taxonomic Order
- View 1985 Data

Block 6853D Summary

Total Species:	79
Possible:	11
Probable:	26
Confirmed:	42

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 6853D

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Spotted Sandpiper	*Actitis macularius*	X1	7/16/2001	Protected
Red-winged Blackbird	*Agelaius phoeniceus*	FY	7/12/2000	Protected
Wood Duck	*Aix sponsa*	NE	7/17/2002	Game Species
Grasshopper Sparrow	*Ammodramus savannarum*	T2	7/4/2001	Protected-Special Concern
Mallard	*Anas platyrhynchos*	FL	7/16/2001	Game Species
American Black Duck	*Anas rubripes*	P2	7/16/2001	Game Species
Ruby-throated Hummingbird	*Archilochus colubris*	X1	7/12/2000	Protected
Tufted Titmouse	*Baeolophus bicolor*	FL	6/25/2003	Protected
Cedar Waxwing	*Bombycilla cedrorum*	NY	7/16/2001	Protected
Canada Goose	*Branta canadensis*	FL	7/12/2000	Game Species
Great Horned Owl	*Bubo virginianus*	T2	1/6/2002	Protected
Red-tailed Hawk	*Buteo jamaicensis*	FL	7/4/2001	Protected
Green Heron	*Butorides virescens*	FY	7/21/2002	Protected
Whip-poor-will	*Caprimulgus vociferus*	T2	5/15/2003	Protected-Special Concern
Northern Cardinal	*Cardinalis cardinalis*	FY	7/16/2001	Protected
House Finch	*Carpodacus mexicanus*	T2	7/4/2001	Protected

Veery	*Catharus fuscescens*	T2	7/4/2001	Protected
Hermit Thrush	*Catharus guttatus*	T2	5/5/2003	Protected
Chimney Swift	*Chaetura pelagica*	P2	6/29/2002	Protected
Killdeer	*Charadrius vociferus*	T2	6/29/2002	Protected
Common Nighthawk	*Chordeiles minor*	X1	6/19/2003	Protected-Special Concern
Yellow-billed Cuckoo	*Coccyzus americanus*	T2	7/4/2001	Protected
Northern Flicker	*Colaptes auratus*	FY	6/25/2003	Protected
Northern Bobwhite	*Colinus virginianus*	T2	7/4/2001	Game Species
Rock Pigeon	*Columba livia*	ON	7/4/2001	Unprotected
Eastern Wood-Pewee	*Contopus virens*	T2	7/4/2001	Protected
American Crow	*Corvus brachyrhynchos*	FL	7/4/2001	Game Species
Fish Crow	*Corvus ossifragus*	FL	6/25/2003	Protected
Blue Jay	*Cyanocitta cristata*	FY	7/16/2001	Protected
Mute Swan	*Cygnus olor*	FL	7/12/2000	Protected
Prairie Warbler	*Dendroica discolor*	T2	7/4/2001	Protected
Yellow Warbler	*Dendroica petechia*	FY	6/25/2003	Protected
Pine Warbler	*Dendroica pinus*	FY	7/4/2001	Protected
Gray Catbird	*Dumetella carolinensis*	FY	7/16/2001	Protected
Willow Flycatcher	*Empidonax traillii*	T2	6/14/2003	Protected
American Kestrel	*Falco sparverius*	T2	6/25/2003	Protected
Common Yellowthroat	*Geothlypis trichas*	DD	7/4/2001	Protected
Barn Swallow	*Hirundo rustica*	FL	7/4/2001	Protected
Wood Thrush	*Hylocichla mustelina*	T2	7/14/2001	Protected
Baltimore Oriole	*Icterus galbula*	UN	7/16/2001	Protected
Belted Kingfisher	*Megaceryle alcyon*	P2	7/16/2001	Protected
Eastern Screech-Owl	*Megascops asio*	X1	1/6/2002	Protected
Red-bellied Woodpecker	*Melanerpes carolinus*	FL	7/17/2002	Protected
Wild Turkey	*Meleagris gallopavo*	FL	7/4/2001	Game Species
Song Sparrow	*Melospiza melodia*	FY	7/4/2001	Protected
Northern Mockingbird	*Mimus polyglottos*	FY	7/4/2001	Protected
Black-and-white Warbler	*Mniotilta varia*	FY	7/12/2000	Protected
Brown-headed Cowbird	*Molothrus ater*	FL	6/25/2003	Protected

Great Crested Flycatcher	*Myiarchus crinitus*	T2	6/29/2001	Protected
Osprey	*Pandion haliaetus*	P2	7/12/2000	Protected-Special Concern
House Sparrow	*Passer domesticus*	ON	7/4/2001	Unprotected
Savannah Sparrow	*Passerculus sandwichensis*	X1	7/16/2001	Protected
Blue Grosbeak	*Passerina caerulea*	X1	6/29/2002	Protected
Indigo Bunting	*Passerina cyanea*	X1	5/7/2002	Protected
Ring-necked Pheasant	*Phasianus colchicus*	T2	6/14/2003	Game Species
Downy Woodpecker	*Picoides pubescens*	FL	7/4/2001	Protected
Eastern Towhee	*Pipilo erythrophthalmus*	FL	7/4/2001	Protected
Scarlet Tanager	*Piranga olivacea*	X1	7/17/2002	Protected
Black-capped Chickadee	*Poecile atricapillus*	FL	7/4/2001	Protected
Blue-gray Gnatcatcher	*Polioptila caerulea*	X1	7/12/2000	Protected
Purple Martin	*Progne subis*	ON	7/12/2000	Protected
Common Grackle	*Quiscalus quiscula*	FY	7/12/2000	Protected
Eastern Phoebe	*Sayornis phoebe*	FY	6/25/2003	Protected
Ovenbird	*Seiurus aurocapilla*	T2	7/4/2001	Protected
White-breasted Nuthatch	*Sitta carolinensis*	X1	6/25/2003	Protected
American Goldfinch	*Spinus tristis*	P2	7/12/2000	Protected
Chipping Sparrow	*Spizella passerina*	FL	7/4/2001	Protected
Field Sparrow	*Spizella pusilla*	T2	7/4/2001	Protected
European Starling	*Sturnus vulgaris*	FY	7/12/2000	Unprotected
Tree Swallow	*Tachycineta bicolor*	FL	7/16/2001	Protected
Carolina Wren	*Thryothorus ludovicianus*	T2	7/4/2001	Protected
Brown Thrasher	*Toxostoma rufum*	FY	7/4/2001	Protected
House Wren	*Troglodytes aedon*	T2	7/4/2001	Protected
American Robin	*Turdus migratorius*	FY	7/12/2000	Protected
Eastern Kingbird	*Tyrannus tyrannus*	FY	7/12/2000	Protected
Yellow-throated Vireo	*Vireo flavifrons*	T2	7/16/2001	Protected
Warbling Vireo	*Vireo gilvus*	X1	6/29/2002	Protected
Red-eyed Vireo	*Vireo olivaceus*	FY	7/16/2001	Protected
Mourning Dove	*Zenaida macroura*	FL	6/29/2002	Protected

Current Date: 8/15/2019

APPENDIX E-2
NEW YORK STATE NATURAL HERITAGE PROGRAM CORRESPONDENCE

NYSDEC NY Natural Heritage Program
September 9, 2019

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

September 9, 2019

Raymond Marino
Nelson, Pope & Voorhis, LLC
572 Walt Whitman Road
Melville, NY 11747

Re: Asphalt and Concrete Crushing and Screening Facility
County: Suffolk Town/City: Riverhead

Dear Mr. Marino:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 1 Office, Division of Environmental Permits at dep.r1@dec.ny.gov, 631-444-0365.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

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APPENDIX F
AIR QUALITY ANALYSIS & IMPACT REVIEW

B. Laing Associates Environmental Consulting
October 2020

AIR QUALITY ANALYSIS AND IMPACT REVIEW

1792 MIDDLE ROAD

AT CALVERTON

TOWN OF RIVERHEAD

SUFFOLK COUNTY, NEW YORK

OCTOBER 2020

PREPARED FOR:

NELSON, POPE & VOORHIS

70 MAXESS ROAD

MELVILLE, NY 11747

B. LAING ASSOCIATES
ENVIRONMENTAL CONSULTING
www.blaingassociates.com

AIR QUALITY ANALYSIS AND IMPACT REVIEW

1792 MIDDLE ROAD
AT CALVERTON
TOWN OF RIVERHEAD
SUFFOLK COUNTY, NEW YORK

OCTOBER 2020

Table of Contents

TABLES AND FIGURES

Background

B. Laing Associates, Inc. is an environmental consulting firm providing air quality analysis services for the proposed Asphalt and Concrete Crushing and Screening Facility development (herein referred to as the Project) located in the Town of Riverhead, Suffolk County, New York. The Project is located at 1792 Middle Road, Calverton and is identified as Suffolk County Tax Map District 0600, Section 100, Block 2, Lot 4.2. See attached Figure 1 - Site Location Map.

Proposed Action

The proposed action involves the redevelopment of a 6.68-acre industrially zoned property which currently contains a residence and residential accessory structures. The existing residence on-site is proposed to be repurposed and the land use converted to an asphalt and concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage to office and storage space. An existing in-ground swimming pool and other minor residential accessory structures would be removed. The proposed business would have two crushing/screening equipment stations and five asphalt/concrete stockpiles. Ten-foot deep buffers would be provided along the eastern, western and southwestern property boundaries and 20-foot deep buffers would be provided along the southeastern and northerly property boundaries. Existing vegetation in the southeastern and southwestern portions of the site would remain. The proposed driveway will be surfaced with RCA and topsoil and hydro seeding is proposed in non-operational areas.

The purpose of this analysis is to evaluate temporary or permanent impacts to air quality that may occur as a result of the Project. The closest receptors occur to the site's east/southeast including one commercial property and two residentially-developed properties (although all these properties are zoned for an industrial use. Mitigation and assessment of significant air quality impacts will be addressed accordingly.

General Air Quality Characteristics

Existing Conditions

Climate

The climate in Calverton, New York is warm during the summer when average temperatures tend to be in the 80's and very cold during winter when average temperatures tend to be in the 30's. The National Oceanic and Atmospheric Administration (NOAA) record this local climate in Shirley, Brookhaven airport, Suffolk County, New York. The warmest month of the year is July with high average temperature of 81 degrees Fahrenheit, while the coldest months of the year are January and February with a high average of temperature 31 degrees Fahrenheit. Temperature variations between night and day tend to be fairly consistent during both the winter and summer seasons with a difference that can reach 15-17 degrees Fahrenheit. The annual average precipitation in Calverton, NY is around 45.36 inches.[1] This locale receives about 29 inches of snow per year on average.

Brookhaven airport was also used to provide meteorological data for the air quality analysis. This included five years of hourly data from b0th surface and upper sir observations. Hourly results from 2105 through 2019 (24 hours per day, 365 days a year – as available) were compiled and formatted for use in US EPA's AERMOD.

Ambient Air Quality

Existing air quality is good in the vicinity of the Project site. The median air quality index (AQI) in 2019 for Suffolk County, New York was 40.[2] An AQI between 0 and 50 is satisfactory and air pollution poses little or no risk. Existing air quality standards for New York State are found in the State Ambient Air Quality Standards (SAAQS) which largely mimic the National Ambient Air Quality Standards (NAAQS). Possible relevant pollutants for mobile sources are particulate matter (PM), ozone (O_3) and carbon monoxide (CO). Carbon monoxide is the dominant pollutant and so, it is modeled as provided in NYSDOT's The Environmental Manual (TEM).

Table 1 depicts the N/SAAQS.

NYSDEC monitors air quality throughout the state. There are currently fifty-eight (58) active air monitoring sites in New York State. Parameters observed vary from air monitoring sites. Five (5) monitoring sites are located within NYSDEC Region 1 (Long Island) with one (1) site in Nassau County and four (4) sites in Suffolk. The closest monitoring site to the Project is 36-103-0004 located at 39 Sound Avenue, Riverhead, New York. Parameters are described below:

Particulate matter ($PM_{2.5}$) is measured in Holtsville, New York at Site No. 36-103-0009. This site had an annual mean standard for last three (3) years (2017-2019) of 6.2ug/m^3. This annual mean was well below the 12 ug/m^3 standard. The Holtsville site had an average of 98th percentile for last 3 years 15.2 ug/m^3. This average was well below the 35 ug/m^3standard.

Particulate matter (PM_{10}) is not measured in NYSDEC Region 1. The closest monitoring station is approximately 60 miles to the west at Queens College 2 (Site No. 36-081-0124). The maximum 24-hour concentration in 2019 was 28 ug/m^3 versus a standard of 150 ug/m^3. No days were recorded over the 150 ug/m^3 over the last three years (2017-2019).

This type of use (as proposed to a "smokestack" industry) dominantly generates Particulate Matter (PM_{10}) with a somewhat larger aerodynamic diameter. Thus. PM_{10} was analyzed for the project.

Ozone is measured at the Riverhead site (36-103-0004) in Suffolk County. It is the only pollutant that occasionally exceeds the standard both in NYSDEC Region 1 and State-wide. It is formed from the long-term transport of hydrocarbon emissions in the mid-western United States and as such, is not a "local" enforcement issue on emissions. The average 3 year annual mean for this pollutant was 0.072 parts per million (ppm) for the years 2017 to 2019. The first highest maximum daily eight hour average was 0.079 ppm in 2019 when it slightly exceeded the 0.070 ppm standard.

[1] Climate-data.org

[2] According to the United States Environmental Protection Agency (EPA) Outdoor Air Quality Data, Air Quality Index Report.

Sulfur dioxide (SO_2) is monitored at Holtsville, New York at Site No. 36-103-0009. In 2019, the annual average was recorded at 0.38 parts per billion (ppb) versus an annual standard not to exceed 30 ppb and the one hour average for the last three years (2017-2019) have peaked at 3.13 ppb versus a standard of 75 ppb.

Carbon Monoxide (CO) is not measured in NYSDEC Region 1. The closest monitoring station is approximately 60 miles to the west at Queens College 2 (Site No. 36-081-0124) and Queens College Near Road (Site No. 36-081-0125). The highest one hour value in 2019 at Site No. 36-081-0124was 1.51 ppm versus a standard of 35 ppm. The highest eight hour value was 1.10 ppm versus a standard of 9.0 ppm. The highest one hour value in 2019 at Site No. 36-081-0125 was 2.85 ppm versus a standard of 35 ppm. The highest eight hour value was 1.30 ppm versus a standard of 9.0 ppm.

Nitrogen dioxide (NO_2) and lead are also not measured at 36-103-0004 located at 39 Sound Avenue, Riverhead, New York. Monitoring sites for these pollutants are located in Region 2.

TABLE 1
National/State Ambient Air Quality Standards*

POLLUTANT		PRIMARY/ SECONDARY	AVERAGING TIME	LEVEL	FORM
CARBON MONOXIDE		primary	8-hour	9 ppm	Not to be exceeded more than once per year
			1-hour	35 ppm	
LEAD		primary and secondary	Rolling 3-month average	0.15 $\mu g/m^3$ (1)	Not to be exceeded
NITROGEN DIOXIDE		primary	1-hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		primary and secondary	Annual	53 ppb (2)	Annual Mean
OZONE		primary and secondary	8-hour	0.070 ppm (3)	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
PARTICLE POLLUTION	$PM_{2.5}$	primary	Annual	12 $\mu g/m^3$	annual mean, averaged over 3 years
		secondary	Annual	15 $\mu g/m^3$	annual mean, averaged over 3 years
		primary and secondary	24-hour	35 $\mu g/m^3$	98th percentile, averaged over 3 years
	PM_{10}	primary and secondary	24-hour	150 $\mu g/m^3$	Not to be exceeded more than once per year on average over 3 years
SULFUR DIOXIDE		primary	1-hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

*http://www.dec.ny.gov/chemical

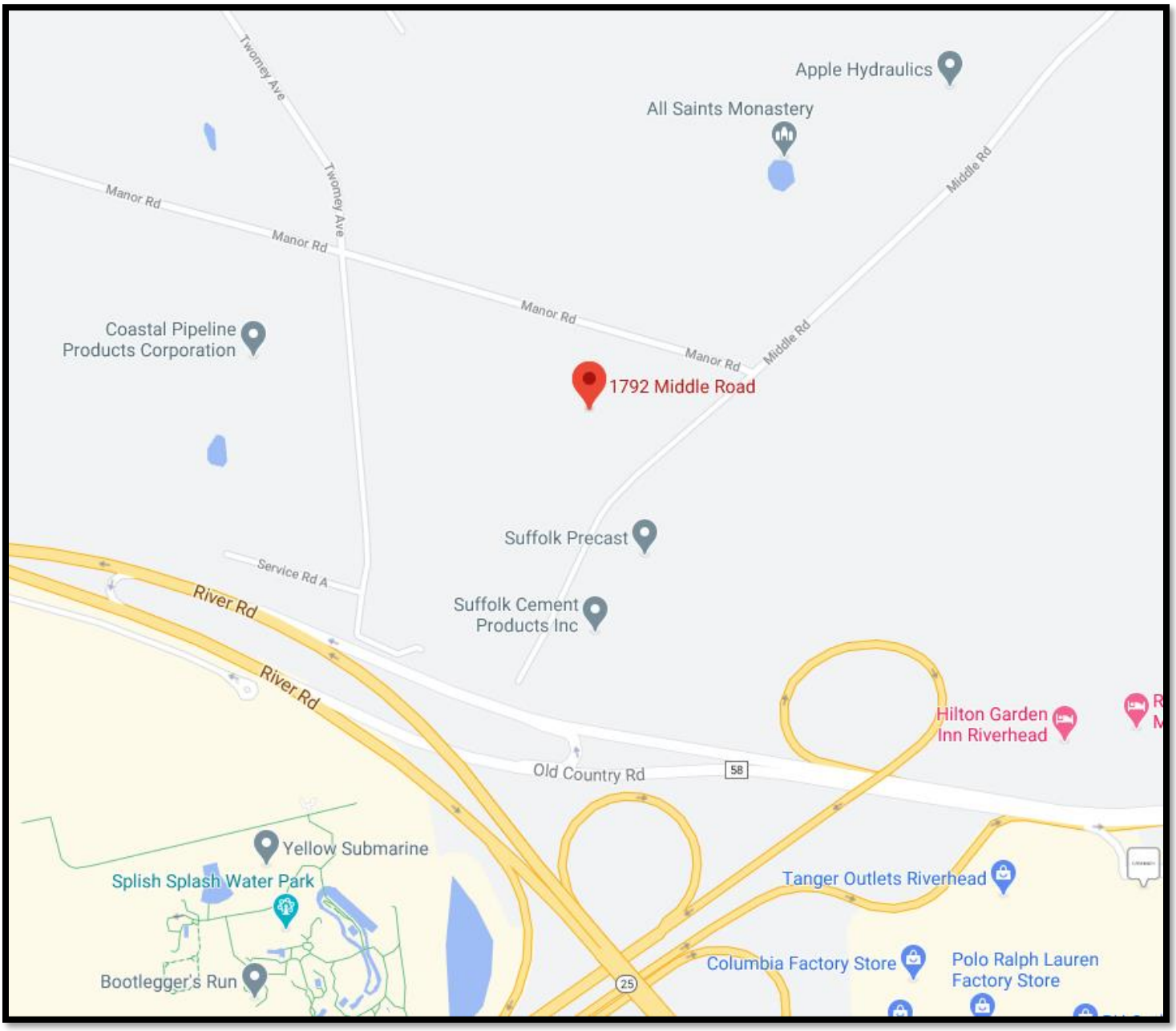


FIGURE 1

SITE LOCATION MAP

1792 MIDDLE ROAD
AT CALVERTON
TOWN OF RIVERHEAD
SUFFOLK COUNTY, NEW YORK

(SOURCE: GOOGLE MAPS)

Proposed Action Analysis

Mobile Pollutant Screening:

The first level of "air quality screening" as provided in NYSDOT's The Environmental Manual (TEM) is essentially a traffic analysis consistent with the Highway Capacity Manual (HCM). The Traffic Impact Study was provided by Nelson & Pope Engineers and Surveyors, April 2020, and is Appendix of the Draft Environmental Impact Statement (DEIS). The TEM provides guidance on determination for a required microscale analysis which is based on the consideration of several standards.

Per TEM I-1 Level of Service (LOS) Screening, intersections potentially impacted by the Project must be screened for overall Level of Service (LOS). If the LOS is A, B, or C, no further analyses are required. If any signalized intersections have LOS predicted D, E, or F, significant vehicle queuing may occur and further analysis may be required for up to the three worst intersections. In this case, traffic data was collected from NYSDOT, Town of Riverhead and through field data collection. Three (3) existing intersections, as listed in Table 2, were analyzed by the engineer. The traffic data included one (1) signalized intersection and two (2) unsignalized/stop-controlled intersections. These intersections were analyzed in the A.M., P.M. and Saturday peak scenarios. LOS was analyzed in the three different scenarios condition for base (2020), no build (2022) and build phase (2022).

Sensitive receptors (i.e., schools, hospitals, etc.) were to be located during this air quality analysis for potential impact. In microscale dispersion modeling, link length and queues for intersections are set between 1,000 and 1,200 foot receptor analysis for free flow links. This is required by The Environmental Manual (TEM). A few notable receptors, such as Splish Splash (1.4 miles), Riverhead Charter School (1.8 miles), All Saints Monastery (0.3 miles) and the Tanger Outlets (3 miles) were recorded as existing. There are no "sensitive" noise receptors in the vicinity of the project sites. The ambient air quality standards cited above were set to protect the public health and welfare, including sensitive individuals. Thus, in the end, all such receptors are subject to the same standards

TABLE 2
ANALYZED INTERSECTIONS

NO.	INTERSECTION	ANALYZED
1	Middle Country Road and Manor Road	signalized
2	Manor Road at Twomey Avenue	unsignalized
3	Manor Road at Middle Road	unsignalized

Mobile Source Air Quality Impacts

No significant air quality impacts related to traffic are anticipated as a result of the buildout of the Project. Per the TEM Level of Service (LOS) Screening, if the LOS is A, B, or C, no further analyses are required. In this case, the Traffic Impact Study provided by Nelson & Pope Engineers and Surveyors, April 2020, has determined that the LOS will achieve A, B or C in the build scenario.

Facility Pollutant Modeling:

The Project will consist of the handling, grinding and sorting of recycled concrete and other aggregate materials. This activity will generate significant amounts of particulate matter. To determine the potential impact of this facility on the closest (and especially residential) receptors, the project was subjected to dispersion modeling utilizing US EPA's AERMOD. The project includes both point sources (the griding and sorting assemblies) and "fugitive dust" generated from storage piles' surfaces. This type of use (as proposed to a "smokestack" industry) dominantly generates Particulate Matter (PM_{10}) with a somewhat larger aerodynamic diameter. Thus, PM_{10} was analyzed for the project. Emission concentrations and volumes were determined using USEPA's Air Pollution publication #42 as specifically outlined for grinding and sorting and generation of "fugitive dust." No mitigating measures were assumed in the modeling. As such, if "dust control" measures are implemented, the results will be less than predicted by the model.

AERMOD takes the emissions and disperses them into the local environmental using 3 dimensional, Gaussian plume calculations over time and space. The physical space is laid out as to sources and receptors using UTM coordinates and are modified by heights in meters.

Beyond the emission and physical layouts, the modeling includes meteorological inputs from the closest continually-recording source. Thus, Brookhaven airport was used to provide meteorological data for the air quality analysis. This included five years of hourly data from both surface and upper sir observations. Hourly results from 2105 through 2019 (24 hours per day, 365 days a year – as available) were compiled and formatted for use in US EPA's AERMOD.

The results of the above, five-year, hourly modeling was a one hour maximum result of 53.7 ug/m^3 at the commercial site located immediately east of the site. Two sites to the east are also residences (in industrial zones) with the highest hourly results of 51.7 ug/m^3 and 46.9 ug/m^3. The results of the above, five-year, 24-hour modeling was a maximum result of 21 ug/m^3 for the commercial site located immediately east of the site. Two sites to the east are also residences (in industrial zones) with the highest 24-hour results of 20.1 ug/m^3 and 18.9 ug/m^3. These results are well below (14% of) the 24 hour average PM_{10} 150 ug/m^3 N/SAAQS standard. No mitigating measures were assumed in the modeling. As such, if "dust control" measures are implemented, the results will be less than predicted.

Facility Air Quality Impacts

As described above, no significant air quality impacts related to the proposed facility are anticipated as a result of the buildout of the Project. Dust will be controlled on an as-needed basis by lightly watering down the work areas. Within the facility, the watering truck, pre-set ground sprinklers and/or dust-suppressing water-atomizers will operate periodically to suppress dust. However, the application of water from these sources will not be in sufficient volume so as to create runoff.

Construction Pollutant Screening:

The short-term use of heavy equipment operations will result in a temporary, minor increase in pollutant emissions from various equipment used in the construction process. However, the major concern during the construction operation will be the control of fugitive dust during site clearing, excavation, demolition grading and blasting operations. Fugitive dust is essentially airborne soil particles caused by heavy equipment operations entraining the freshly exposed soil into the air. To a lesser extent, some fugitive dust emissions will arise from wind erosion of the exposed soils.

All construction related air quality impacts will be of relatively short duration. Best construction management practices will be employed to reduce soil erosion and possible sources of fugitive dust. This generally includes the daily use of water/spray trucks in dry periods, anti-tracking pads at construction entrances, street sweeping at the entrances as needed and adherence to a Storm Water Pollution Prevention Plan (SWPPP), which provides Erosion and Sediment Control.

Increases in pollutant emissions can, in some cases, result from construction traffic en route to a project site. Construction traffic, specific to this project, is temporary and is not anticipated to decrease existing air quality. Per 40 CFR § 93.123 - Procedures for determining localized CO, PM10, and PM2.5 concentrations (hot-spot analysis), PM^{10} and $PM^{2.5}$ analysis is required for projects that "(ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project." Examples of these projects include bus or rail terminals and the proposed project traffic will not approach these categories. The proposed action will not result in a significant increase in the number of diesel vehicles. However, efforts will be maximized to reduce haul distances, minimize idling, use alternative fuels, use hybrid equipment or retrofit construction equipment to reduce the potential of impacts to air quality during the construction phase of the project.

Trucks, compressors, cranes, excavators and other equipment will be maintained and in good working condition and turned off when not in use. This will reduce the idling of unused equipment in adherence of state regulations as cited above. Reduced idling will reduce potential air pollution.

As a result of the findings, no further analysis in regards to potential air quality impacts due to construction is necessary as it would not result in a significant or extended impact on air quality as a result of the project.

Conclusions:

In review of mobile source screening guidelines of The Environmental Manual (TEM) and point/surface AERMOD dispersion modeling, no further air quality analysis should be required at this time for the Project as it would not result in a significant increase in impacts to air quality.

APPENDIX A
AERMOD RESULTS.
METEOROLOGICAL DATA

Plume Animation - Time Range

Date & Time: 2015/01/01 00:00:

Range: 2015/01/01 0 | 2019/12/31 2

Animation Controls

Slow — Fast

Loop

Display Data Options

Source Groups: ALL

Output Type: Concentration

Plots | Plume Animation

Input | Overlays | Labels

Model: AERMOD MPI Version 19191

Plotfile List: BREEZY HILL-NPVCVT01.AD\01H1GALL.PLT

Output Type: Concentration

PLOT FILE OF HIGH 1ST HIGH 1-HR VALUES FOR SOURCE GROUP: ALL

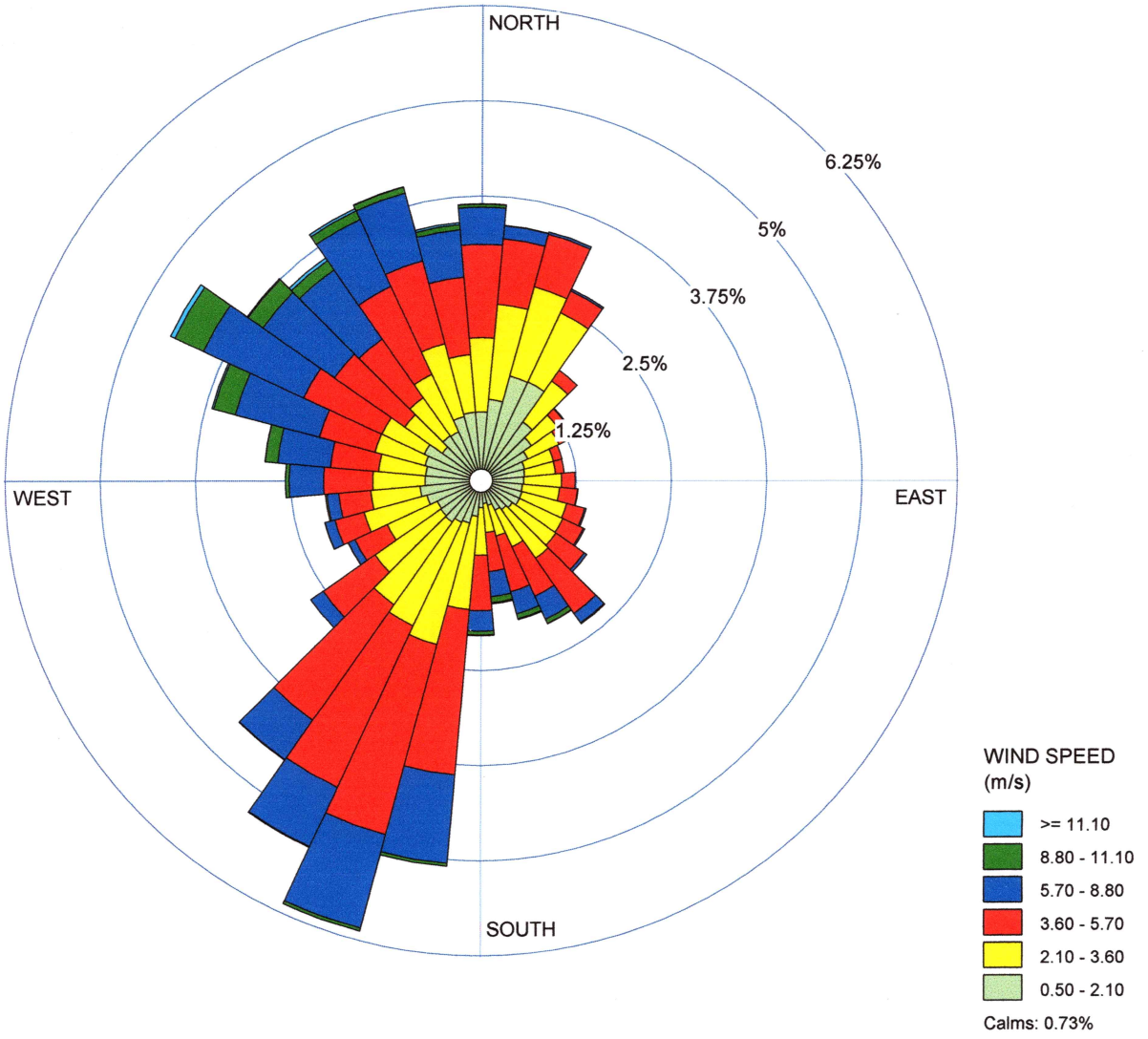
Max: 53.69295 [ug/m^3] at (691682.05, 4533182.16)

WIND ROSE PLOT:

Station #54790

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/2015 - 00:00** **End Date: 12/31/2019 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **0.73%**	TOTAL COUNT: **43636 hrs.**	
	AVG. WIND SPEED: **3.71 m/s**	DATE: **11/9/2020**	PROJECT NO.:

```
**
**
****************************************
** AERMOD Modeling Results
****************************************
**
**
CO STARTING
  TITLEONE C:\\AERMOD View\BREEZY HILL-NPVCVT01\BREEZY HILL-NPVCVT01.isc
  MODELOPT CONC
  AVERTIME 1 24 PERIOD
  POLLUTID PM-10
  FLAGPOLE 1.80
  RUNORNOT RUN
  ERRORFIL "BREEZY HILL-NPVCVT01.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION 001         POINT     691604.740  4533189.380      15.000
** DESCRSRC Crushing Plant 001
  LOCATION 002         POINT     691584.740  4533267.380      15.000
** DESCRSRC Crushing Plant 002
  LOCATION 003         AREA      691584.740  4533199.380      15.000
** DESCRSRC Storage Pliles - Active
** Source Parameters **
  SRCPARAM 001           0.03   10.000    0.000   1.00000    2.000
  SRCPARAM 002           0.03   10.000    0.000   1.00000    2.000
  SRCPARAM 003         6.8E-06   10.000   60.000   58.000   -5.000
  SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
  INCLUDED "BREEZY HILL-NPVCVT01.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
  SURFFILE MET2017487_2015_2019.SFC
  PROFFILE MET2017487_2015_2019.PFL
  SURFDATA 54790 2015 BROOKHAVEN_NY_SURFACE
  UAIRDATA 94703 2015 BROOKHAVEN_NY_upper_air
  PROFBASE 0.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
```

```
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 24 1ST 6TH
** 1-Hour Binary POSTFILE(s) for the Plume Animation
   POSTFILE 1 ALL UNFORM "BREEZY HILL-NPVCVT01.AD\1HGALLUN_PA.POS" 31
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "BREEZY HILL-NPVCVT01.AD\01H1GALL.PLT" 32
   PLOTFILE 24 ALL 1ST "BREEZY HILL-NPVCVT01.AD\24H1GALL.PLT" 33
   PLOTFILE 24 ALL 6TH "BREEZY HILL-NPVCVT01.AD\24H6GALL.PLT" 34
   PLOTFILE PERIOD ALL "BREEZY HILL-NPVCVT01.AD\PE00GALL.PLT" 35
   SUMMFILE "BREEZY HILL-NPVCVT01.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of         0 Fatal Error Message(s)
 A Total of         1 Warning Message(s)
 A Total of         0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
             ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W187      69      MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 ************************************
 *** SETUP Finishes Successfully ***
 ************************************
```

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Allows User-Specified Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:
ADJ_U* - Use ADJ_U* option for SBL in AERMET
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: PM-10

**Model Calculates 2 Short Term Average(s) of: 1-HR 24-HR
and Calculates PERIOD Averages

**This Run Includes: 3 Source(s); 1 Source Group(s); and 3 Receptor(s)

with: 2 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 1 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 19191

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of Concurrent Values for Postprocessing (POSTFILE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 0.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0

Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Input Runstream File: aermod.inp
**Output Print File: aermod.out

**Detailed Error/Message File: BREEZY HILL-NPVCVT01.err
**File for Summary of Results: BREEZY HILL-NPVCVT01.sum

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
001	0	0.30000E-01	691604.7	4533189.4	15.0	10.00	-0.00	1.00	2.00	NO	NO	NO	
002	0	0.30000E-01	691584.7	4533267.4	15.0	10.00	-0.00	1.00	2.00	NO	NO	NO	

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** AREA SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	COORD (SW CORNER) Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
003	0	0.68000E-05	691584.7	4533199.4	15.0	10.00	60.00	58.00	-5.00	0.00	NO	

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	001 , 002 , 003 ,

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(691682.1, 4533182.2, 15.0, 15.0, 1.8); (691654.3, 4533240.9, 15.0, 15.0, 1.8);
(691704.7, 4533198.5, 15.0, 15.0, 1.8);

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: MET2017487_2015_2019.SFC Met Version: 19191
Profile file: MET2017487_2015_2019.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 54790 Upper air station no.: 94703
Name: BROOKHAVEN_NY_SURFACE Name: BROOKHAVEN_NY_UPPER_AIR
Year: 2015 Year: 2015

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
15	01	01	1	01	-15.9	0.161	-9.000	-9.000	-999.	156.	28.7	0.02	0.49	1.00	2.67	272.	10.0	268.8	2.0
15	01	01	1	02	-13.1	0.142	-9.000	-9.000	-999.	129.	22.2	0.01	0.49	1.00	2.67	257.	10.0	268.8	2.0
15	01	01	1	03	-4.5	0.082	-9.000	-9.000	-999.	57.	11.2	0.01	0.49	1.00	1.59	248.	10.0	268.8	2.0
15	01	01	1	04	-18.7	0.177	-9.000	-9.000	-999.	178.	34.3	0.01	0.49	1.00	3.27	257.	10.0	269.2	2.0
15	01	01	1	05	-20.7	0.196	-9.000	-9.000	-999.	208.	42.2	0.01	0.49	1.00	3.61	257.	10.0	269.2	2.0
15	01	01	1	06	-25.1	0.238	-9.000	-9.000	-999.	278.	62.1	0.02	0.49	1.00	3.85	271.	10.0	269.2	2.0
15	01	01	1	07	-24.8	0.234	-9.000	-9.000	-999.	272.	60.4	0.02	0.49	1.00	3.80	273.	10.0	269.2	2.0
15	01	01	1	08	-20.9	0.199	-9.000	-9.000	-999.	213.	43.5	0.01	0.49	0.88	3.66	256.	10.0	269.9	2.0
15	01	01	1	09	-13.3	0.237	-9.000	-9.000	-999.	276.	90.5	0.01	0.49	0.64	4.27	244.	10.0	270.9	2.0
15	01	01	1	10	6.7	0.333	0.217	0.005	55.	462.	-500.2	0.01	0.49	0.55	5.70	246.	10.0	272.5	2.0
15	01	01	1	11	20.0	0.436	0.489	0.005	212.	691.	-376.5	0.01	0.49	0.52	7.43	252.	10.0	273.1	2.0
15	01	01	1	12	26.6	0.414	0.686	0.005	439.	640.	-242.0	0.01	0.49	0.51	7.01	253.	10.0	274.2	2.0
15	01	01	1	13	26.0	0.443	0.852	0.005	860.	706.	-301.8	0.01	0.49	0.51	7.52	245.	10.0	274.9	2.0
15	01	01	1	14	18.4	0.395	0.794	0.005	984.	599.	-304.1	0.01	0.49	0.52	6.72	244.	10.0	275.9	2.0
15	01	01	1	15	4.1	0.513	0.485	0.005	1000.	881.	-2950.6	0.03	0.49	0.56	7.31	237.	10.0	275.9	2.0
15	01	01	1	16	-28.4	0.425	-9.000	-9.000	-999.	673.	244.7	0.03	0.49	0.66	6.23	236.	10.0	275.9	2.0
15	01	01	1	17	-32.2	0.313	-9.000	-9.000	-999.	429.	107.6	0.03	0.49	1.00	4.68	238.	10.0	275.4	2.0
15	01	01	1	18	-25.2	0.246	-9.000	-9.000	-999.	294.	66.4	0.03	0.49	1.00	3.71	233.	10.0	275.9	2.0
15	01	01	1	19	-38.9	0.381	-9.000	-9.000	-999.	564.	159.4	0.03	0.49	1.00	5.65	229.	10.0	277.0	2.0
15	01	01	1	20	-46.5	0.454	-9.000	-9.000	-999.	734.	226.9	0.03	0.49	1.00	6.69	234.	10.0	277.0	2.0
15	01	01	1	21	-45.2	0.441	-9.000	-9.000	-999.	704.	214.3	0.03	0.49	1.00	6.51	234.	10.0	277.0	2.0
15	01	01	1	22	-27.4	0.267	-9.000	-9.000	-999.	356.	78.7	0.01	0.49	1.00	4.86	242.	10.0	277.0	2.0
15	01	01	1	23	-36.8	0.360	-9.000	-9.000	-999.	518.	142.4	0.01	0.49	1.00	6.46	250.	10.0	277.0	2.0
15	01	01	1	24	-33.9	0.331	-9.000	-9.000	-999.	457.	120.4	0.01	0.49	1.00	5.96	260.	10.0	277.0	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
15	01	01	01	10.0	1	272.	2.67	268.8	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 001 , 002 , 003 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
691682.05	4533182.16	3.54425	691654.33	4533240.87	4.91944
691704.73	4533198.53	3.12127			

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 001 , 002 , 003 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
691682.05	4533182.16	53.69295	(15091707)	691654.33	4533240.87	51.28304	(16122409)
691704.73	4533198.53	46.91124	(16071206)				

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 001 , 002 , 003 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
691682.05	4533182.16	20.14792m	(19011524)	691654.33	4533240.87	20.96994	(17012124)
691704.73	4533198.53	18.88684	(18122524)				

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** THE 6TH HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 001 , 002 , 003 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
691682.05	4533182.16	17.14569	(15101424)	691654.33	4533240.87	17.77108	(17100524)
691704.73	4533198.53	15.08517	(19122824)				

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	4.91944 AT (691654.33, 4533240.87, 15.00, 15.00, 1.80) DC	
	2ND HIGHEST VALUE IS	3.54425 AT (691682.05, 4533182.16, 15.00, 15.00, 1.80) DC	
	3RD HIGHEST VALUE IS	3.12127 AT (691704.73, 4533198.53, 15.00, 15.00, 1.80) DC	
	4TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	
	5TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	
	6TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	
	7TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	
	8TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	
	9TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	
	10TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	53.69295	ON 15091707: AT (691682.05, 4533182.16, 15.00, 15.00, 1.80)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	20.96994	ON 17012124: AT (691654.33, 4533240.87, 15.00, 15.00, 1.80)	DC	
	HIGH 6TH HIGH VALUE IS	17.77108	ON 17100524: AT (691654.33, 4533240.87, 15.00, 15.00, 1.80)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: CONC ELEV FLGPOL RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 1 Warning Message(s)
A Total of 826 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 279 Calm Hours Identified

A Total of 547 Missing Hours Identified (1.25 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

****
*** AERMOD Finishes Successfully ***
****

APPENDIX G
SOUND LEVEL MEASUREMENTS AND IMPACT ANALYSIS

B. Laing Associates Environmental Consulting
October 2020

Sound Level Measurements and Impact Analysis
1792 Middle Road
at Calverton
Town of Riverhead
Suffolk County, New York

October 2020

Prepared for:
Nelson, Pope & Voorhis
70 Maxess Road
Melville, NY 11747

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Sound Level Measurements and Impact Analysis

1792 Middle Road
at Calverton
Town of Riverhead
Suffolk County, New York

October 2020

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1.0 EXISTING CONDITION

1.1 Purpose of Study

B. Laing Associates, Inc. is an environmental consulting firm providing sound/noise analyses services for the proposed Asphalt and Concrete Crushing and Screening Facility development (herein referred to as the Project) located in the Town of Riverhead, Suffolk County, New York. The Project is located at 1792 Middle Road, Calverton and is identified as Suffolk County Tax Map District 0600, Section 100, Block 2, Lot 4.2. See attached Figure 1 - Site Location Map.

The proposed action involves the redevelopment of a 6.68-acre industrially zoned property which currently contains a residence and residential accessory structures. The existing residence on-site is proposed to be repurposed and the land use converted to an asphalt and concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage to office and storage space. An existing in-ground swimming pool and other minor residential accessory structures would be removed. The proposed business would have two crushing/screening equipment stations and five asphalt/concrete stockpiles. Ten-foot deep buffers would be provided along the eastern, western and southwestern property boundaries and 20-foot deep buffers would be provided along the southeastern and northerly property boundaries. Existing vegetation in the southeastern and southwestern portions of the site would remain. The proposed driveway will be surfaced with RCA and topsoil and hydro seeding is proposed in non-operational areas.

The purpose of this analysis is to evaluate sound levels that may occur as a result of the Project. Mitigation and assessment of significant noise impacts, if any, will be addressed accordingly.

1.2 General Sound Characteristics

Sound is created when changes of pressure (waves) are produced in the air. These pressure changes are created at many frequencies (i.e., spacing of the waves). Sound is received and perceived when the human ear reacts to these pressure changes. The pressure changes are expressed as decibels (dB) depending upon the power of the source as expressed in watts of power (with a reference of 1 picowatt or 10^{-12} watts). Frequency varies depending upon the rate at which sound pressures fluctuate in a cycle over time. This is measured in hertz (Hz) with one Hz equaling 1 cycle per second. The frequency of the wave (in Hz) determines the perceived pitch of the sound. The average person's ear can detect sounds ranging from 20 to more than 10,000 hertz (Hz). Each frequency is detectable at different pressure levels and so, the system for sound measurement which mimics the human ear is an A-weighted decibel system or dB(A)s. The human ear can barely detect a 3 dB(A) change in sound levels. A 6 dB(A) increase results in a generally audible change. A 10 dB(a) change in sound levels is approximately a doubling of sound wave pressure. As a point of reference, human conversations at a distance of two to three feet occurs at a sound pressure level (SPL) of 60 dB(A) with a calm voice to 75 dB(A) with a raised voice (USEPA's Community Noise, 1971).

1.3 **Sound Monitoring**

Sound/noise measurements on and around the project site were made using a Cirrus Research plc CR:831C noise meter, which was set to measure A-weighted decibel levels as a mimic of the average human ear. Ambient noise levels were measured from several locations on and adjacent to the project site. Figure 2 represents the mapped measured locations on a current aerial. Table 1 depicts the measured locations.

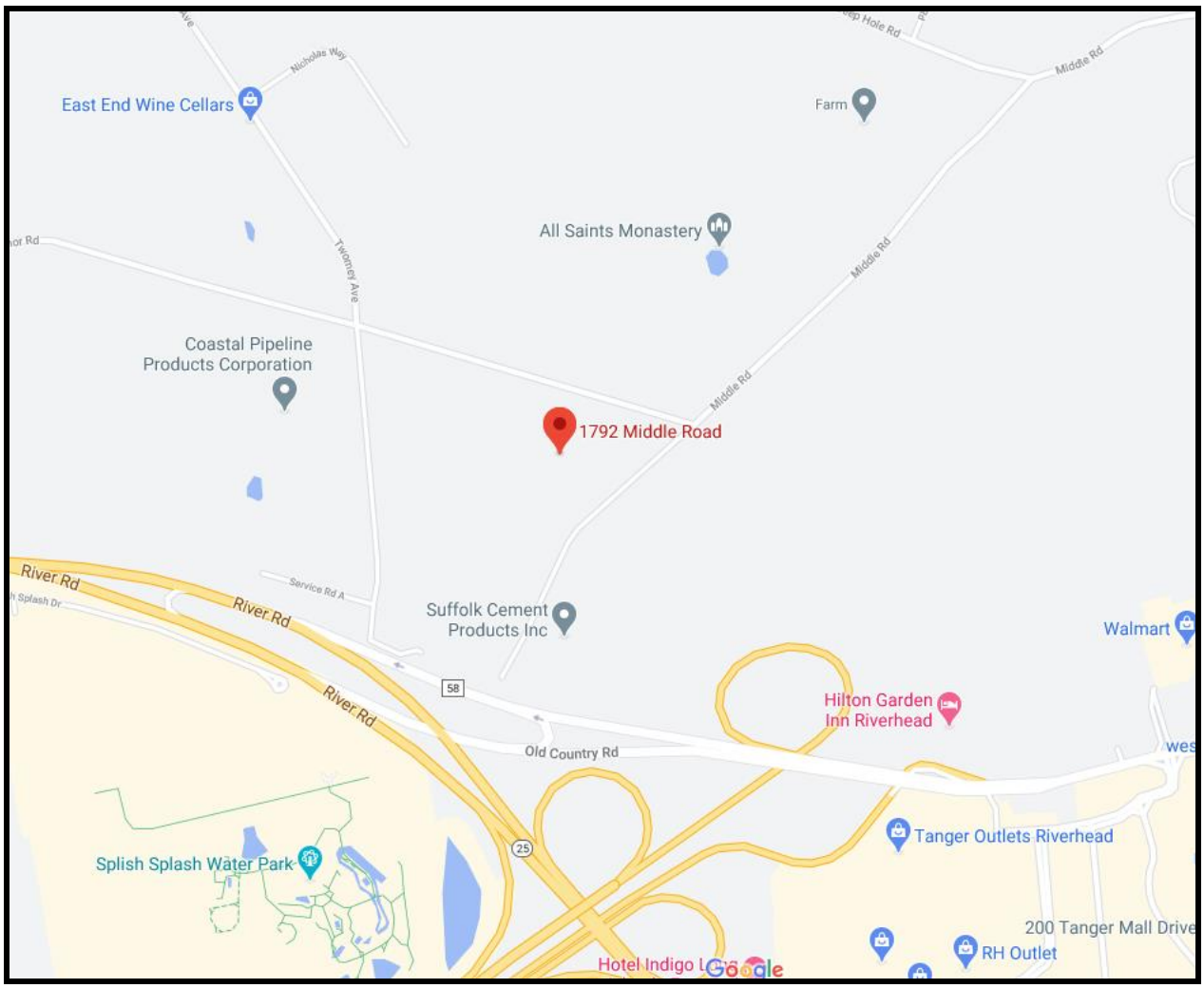
With regard to the methodology of the ambient noise analysis, there is no specific mathematical methodology that was applied to the existing, ambient noise measurements. The readings are straight forward, taken in 10-minute durations and were monitored at the listed locations for existing ambient conditions. The measurements occurred on August 25, 2020 during the off-peak AM scenarios in sunny conditions, with winds between 0 and 10 miles per hour with an average high temperature of 81 degrees Fahrenheit (F). The monitored sound levels are presented in Table 2 (at the rear of the text) and in Appendix A of this report.

The measured levels generally relate to the local industrial uses and vehicle noise at locations measured along Manor Road and Middle Road[1]. Sound measurements were recorded largely during times when existing sound/noise sources were expected to experience the typical average and "peak" in the sound/noise environment.[2] This was determined to occur mid-morning.

[1] An existing concrete and fabrication plant are present to the southeast of the project site. As such, the roadways already experience significant traffic from cement and related trucks.

[2] A value referred to as the "equivalent sound level," L_{eq}, averages were computed/determined from the data. In this case, the $L_{(90)}$ and $L_{(10)}$ were also determined for the expected, "peak hour."

FIGURE 1 – SITE LOCATION MAP
SOURCE: GOOGLE MAPS



1792 Middle Road
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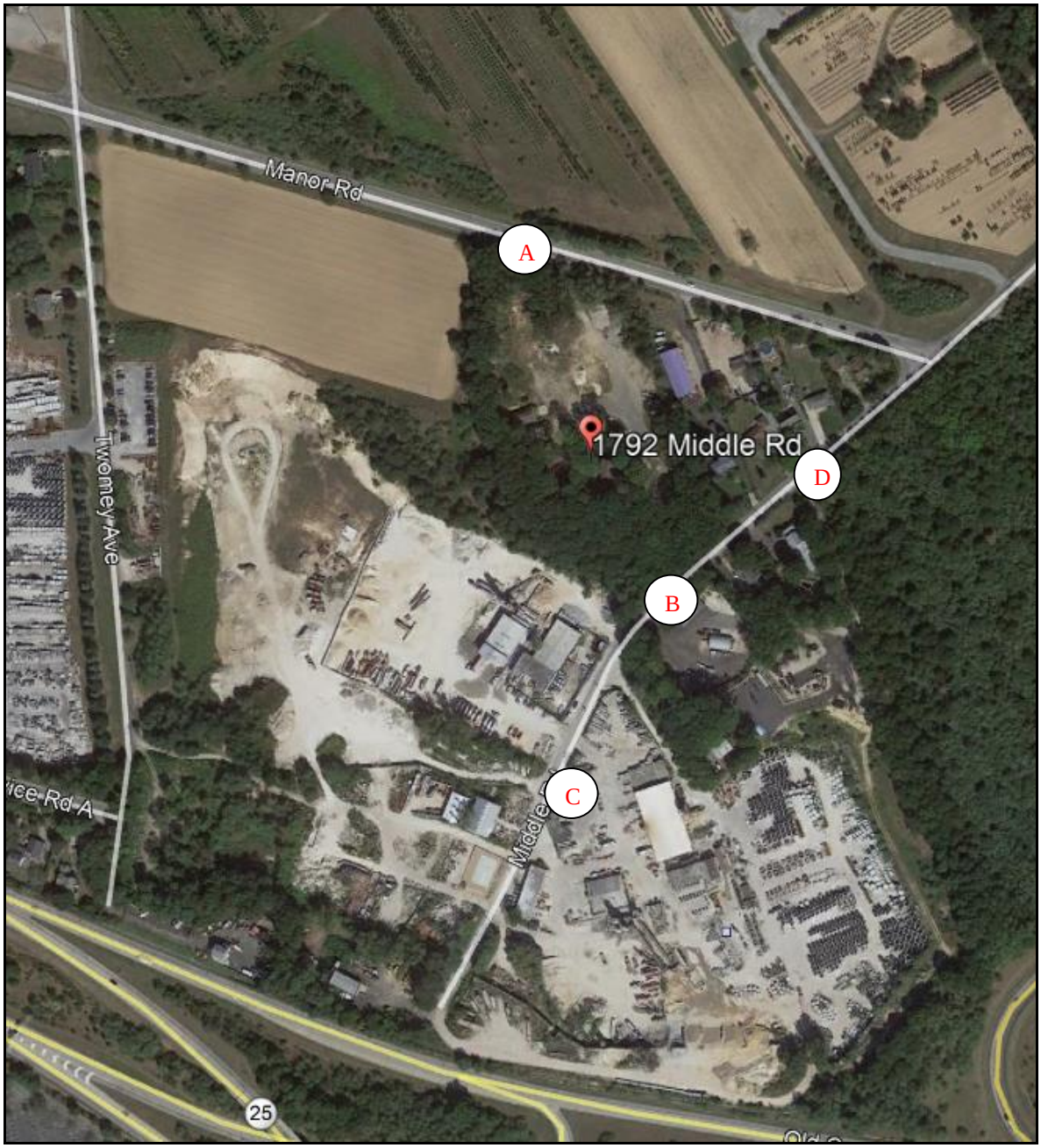
FIGURE 2 - NOISE ANALYSIS SITE ID LOCATION MAP
SOURCE: GOOGLE EARTH



1792 Middle Road
at Calverton
Town of Riverhead
Suffolk County, New York

TABLE 1 – MEASURED LOCATIONS		
SITE ID	**LOCATION**	**DESCRIPTION**
MONITORING LOCATION A	MANOR ROAD SAMPLING	NORTH ENTRANCE/EXIT.
MONITORING LOCATION B	MIDDLE ROAD SAMPLING	SOUTH ENTRANCE/EXIT
MONITORING LOCATION C	INDUSTRIAL YARDS	0.12 MILES SOUTH OF SOUTH ENTRANCE/EXIT
MONITORING LOCATION D	RESIDENTIAL	0.09 MILES NORTH OF SOUTH ENTRANCE/EXIT
Note: Locations are provided in Figure 2.		

Sound levels, in the existing condition, were measured along site's northern property boundary at Location A. Sound measurements from the proposed project's northern location showed an $L_{(eq)}$ of 63.5 dB(A) in the **AM** hour, August 25, 2020. The noise measurements at this location were taken at the proposed entrance/exit along Manor Road.

The sound levels, at this location, result from the existing traffic on Manor Road as a result of the local industrial uses.

Sound levels, in the existing condition, were measured along site's proposed south entrance/exit at Location B. Sound measurements from the proposed project's entrance showed an $L_{(eq)}$ of 64.2 dB(A) in the **AM** hour, August 25, 2020. The noise measurements at this location were taken at the proposed entrance/exit along Middle Road.

The sound levels, at this location, result from the existing traffic on Middle Road as a result of the local industrial uses.

Sound levels, in the existing condition, were measured along Middle Road in the vicinity of existing commercial/industrial uses at Location C. Sound measurements from this location showed an $L_{(eq)}$ of 58.9 dB(A) in the **AM** hour, August 25, 2020. The noise measurements at this location were taken at approximately 150 meters south of the proposed entrance/exit on Middle Road.

The sound levels, at this location, result from the existing traffic on Middle Road as a result of the local industrial uses.

Sound levels, in the existing condition, were measured along Middle Road in the vicinity of existing residential dwellings for Location D. Sound measurements from the proposed project's entrance showed an $L_{(eq)}$ of 60.6 dB(A) in the **AM** hour, August 25, 2020. The noise measurements at this location were taken at approximately 120 meters north of the site's proposed entrance/exit on Middle Road.

The sound levels, at this location, result from the existing traffic on Middle Road as a result of the local industrial uses and limited residential community.

A search for sensitive receptors was undertaken during monitoring efforts. According to the EPA, sensitive receptors are defined by the EPA as "…include, but are not limited to, hospitals, schools, daycare facilities, elderly housing and convalescent facilities." A few notable receptors, such as Splish Splash (1.4 miles), Riverhead Charter School (1.8 miles), All Saints Monastery (0.3 miles) and the Tanger Outlets (3 miles) were recorded as existing. There are no "sensitive" noise receptors (e.g., hospitals, libraries, etc.) in the vicinity of the project sites. To the extent receptors of any kind (commercial buildings, etc.) occur, they too are already impacted as described/measured above by noise/sound levels from the local Town roads.

It should be noted that on August 11, 2020, B. Laing Associates, Inc. conducted sound monitoring efforts at a facility, to that which is proposed, located on Grand Boulevard, Westbury, New York. Four (4) samples were obtained around the existing facility and one (1) sample within the residential area to the south. This facility provides many of the same functions as the proposed facility at 1792 Middle Road. However, sampling results of the Westbury facility were determined to not be representative of the proposed site. This is due to the heavily traveled roadway on Grand Boulevard. Noise levels associated with vehicular traffic are a function mainly of traffic speed, vehicle mix (automobiles, medium trucks, heavy trucks) and volume. In this case, the local road was congested with truck vehicles that were in the vicinity for surrounding commercial/industrial uses. Thus, the volume of vehicles greatly affected the sound sampling results. This is not an accurate depiction of the existing site conditions or proposed conditions at the proposed Calverton, New York location.

Results:

Noise monitoring data results are provided in Table 2. Evaluation of the recorded data reveals that the lowest ambient noise levels occurred along Middle Road at Sample Point C. This monitoring effort was conducted in the vicinity of the industrial yards. This is due to the lack of vehicle activity in this location during sampling efforts. Middle Road, a short local road, ceases south of the project location with no outlet. Sound levels were dominated by truck movement when active. Measurement reports/data sheets are located at the rear of this analysis.

Monitoring Location B, proposed Middle Road entrance, sound measurements presented the highest dB(A) levels in both the AM conditions. This is due to the vehicular activity along Middle Road during the monitoring efforts. Again, this location is dominated by trucks for the adjacent industrial uses. Sample Locations A and D also presented measured levels that are typical of routes located in commercial/industrial areas.

TABLE 2
NOISE MONITORING RESULTS (EXISTING AMBIENT)

Location	***Time***	***Leq***
MANOR ROAD ENTRY SAMPLE POINT A	9:40 AM	63.5 dBA
MIDDLE ROAD ENTRY SAMPLE POINT B	10:10 AM	64.2 dBA
INDUSTRIAL YARDS ALONG MIDDLE ROAD SAMPLE POINT C	10:20 AM	58.9 dBA
RESIDENTIAL AREA ALONG MIDDLE ROAD SAMPLE POINT D	11:50 AM	60.6 dBA

2.0 NOISE REGULATION

2.1 Town of Riverhead Noise Ordinance

The Town of Riverhead regulates noise in Chapter 251 of their Town Code. The noise ordinance contains guidelines and standards that are potentially applicable to the proposed Asphalt and Concrete Crushing and Screening Facility project. These guidelines may be applicable to the operational noise generating sources such as motor equipment, loading and unloading, back up beepers/horns, etc. Chapter 251, §251-5 (K) limits noise generated by the construction of the project. This ordinance reads:

> "Between the hours of 8:00 p.m. and 7:00 a.m. the following day on weekdays or at any time on Sundays or legal holidays, such that the sound therefrom creates unreasonable noise across a residential real property boundary..."

Town Code does not permit continuous sound in air in excess of 65 dB(A) between the hours of 8:00 PM and 7:00 AM across property boundaries that are zoned residential (§251-5 (L).

2.2 Department of Environmental Conservation and FHWA Criteria

The New York State Department of Environmental Conservation (NYSDEC) published, *Assessing and Mitigating Noise Impacts* (October 6, 2000 revised February 2, 2001) to provide guidance and policy on existing and proposed sound levels. This document states that sound level increases of 0 to 5 dB(A) have no appreciable effect on receptors, increases of 5 to 10 dB(A) may have the potential for adverse impact but only in cases where the most sensitive receptors are present. Increases of more than 10 dB(A) may require a closer analysis of impact potential depending on existing noise levels and surrounding land uses, and an increase of 10 dB(A) or more suggests consideration of mitigation measures. It also states that the addition of operational noise sources, in a "non-industrial" setting, should not raise the ambient noise level above a maximum of 65 dB(A). Ambient noise levels in industrial or commercial areas may exceed 65 dB(A) but should not exceed 79 dB(A).[3] Construction noise levels are not specifically addressed by this guidance.

Further, per Part 360. Solid Waste Management Facilities General Requirements, 360.19 Operating requirements, the proposed Asphalt and Concrete Crushing and Screening Facility will be mandated to maintain sound levels equivalent to suburban areas as provided in the ordinance. This is noted in 360.19 as 62 dB(A) between the hours of 7 AM to 10 PM and 52 dB(A) between the hours of 10PM to 7AM. However, if ambient sound levels exceed the regulated levels, the combined level must not surpass the combined sound level of the sources by more than 3 dB(A).

The U.S. Department of Transportation Federal Highway Administration provides noise abatement criteria depicting noise levels for varying land use categories that are used to determine if and where traffic noise impacts occur, as defined in 23 CFR 772.5. Table 3A below depicts each criterion.

[3] Per EPA 550/9-79-100, November 1979.

Table 3: FHWA 23 CFR 772.5 Noise Abatement Criteria (NAC) Hourly A-Weighted Sound Level in Decibels (dBA)*			
Activity Category	**L_{eq}(h)**	**L_{10}(h)**	**Description of Activity Category**
A	57 (Exterior)	60 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	75 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	--	Undeveloped lands.
E	52 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

* Either L_{eq}(h) or L_{10}(h) (but not both) may be used on a project.

In this case, the majority of land use within the vicinity of the project site fall in the "industrial" category C. Any receptors located south of Middle Road/Manor Road intersection and Manor Road already have potentially higher sound levels due to the current zoning and land use.

The FHWA 1995 Highway Traffic Noise Guidance specifies a level of 67 dB(A) or less at most exterior locations for public use such as parks, residences, hotels, churches, libraries, etc. See Table 3A.

3.0 PROPOSED ACTION ANALYSIS

3.1 Traffic Noise Analysis

As provided above, the proposed project site will experience varied sound levels as a result of existing vehicular traffic from local industrial/commercial land use. Noise levels associated with vehicular traffic are a function mainly of traffic speed, vehicle mix (automobiles, medium trucks, heavy trucks) and volume. Posted vehicle traffic speeds will not be affected by the Proposed Action. Vehicle mixes are also anticipated to be essentially the same. Therefore, any changes in traffic related noise will be a function of the change in volume. For example, a doubling of traffic volume (assuming speeds and vehicle mixes do not significantly change) equates to an increase in noise of 3 dBA utilizing this screening type approach per Approximate Addition of Sound Levels in NYSDEC's Assessing and Mitigating Noise Impacts. A 3-dBA increase is unnoticed to tolerable according to the same guidance in Assessing and Mitigating Noise Impacts. See Table 4 below.

Table **4A**

HUMAN REACTION TO INCREASES IN SOUND PRESSURE LEVEL

Increase in Sound Pressure (dB)	Human Reaction
Under 5	Unnoticed to tolerable
5 - 10	Intrusive
10 - 15	Very noticeable
15 - 20	Objectionable
Over 20	Very objectionable to intolerable

(Down and Stocks - 1978)

According to the FHWA, noise impact will occur when projected sound levels approach or exceed abatement criteria (see Table 4 above) or when noise levels substantially exceed existing ambient levels in the area.

That portion of local Town roads in the immediate vicinity of project site will experience a slight increase in traffic as a result of the Asphalt and Concrete Crushing and Screening Facility development and other background traffic growth. Traffic analyses by Nelson & Pope Engineers and Surveyors, April 2020, were performed at this location, analyzing the proposed trip generation for the site improvements. In summary, the proposed project is projected to generate 15 trips (9 entering and 6 exiting) during the weekday AM peak hour, 15 trips (6 entering and 9 exiting) during the weekday PM peak hour and 18 trips (9 entering and 9 exiting) during the Saturday midday peak hour.

The traffic volume, as a result of the project, will result in noise level increases that would equate to unnoticed to tolerable per Table 4. This is because no doubling of traffic will occur as a result of the project. For example, traffic analyses by Nelson & Pope Engineers depicts existing peak AM[4] total at 125 vehicles at the intersection of Manor Road and Middle Road. This number consists of approximately 87.2% light vehicles and 12.8% trucks. The No Build scenario does not

[4] Peak hours defined in this case as 7:30 AM to 8:15 AM.

account for a traffic increase. The proposed trip generation would include 10 trucks and 5 light vehicles during peak hours. This compares to approximately 11% of Build scenario traffic volume of 138 for the intersection of Manor Road and Middle Road.

Existing ambient sound levels within the project vicinity were recorded, per Table 2, depicting an average of 63.5 dB(A) at the Manor Road project entrance. The sound levels, at this location, are a result from the existing traffic on the local road. The approximate addition of a 3 dB(A) increase (per Table 4B below) of sound with the proposed increase in traffic is considered unnoticeable to tolerable according to NYSDEC standards shown in Table 4.

TABLE 4B

Approximate Addition of Sound Levels

Difference Between Two Sound Levels	Add to the Higher of the Two Sound Levels
1 dB or less	3 dB
2 to 3 dB	2 dB
4 to 9 dB	1 dB
10 dB or more	0 dB

(USEPA, Protective Noise Levels, 1978)

As there will not be a doubling of traffic with the proposed action, no significant impacts of sound analysis are anticipated as a result of traffic growths. No changes are anticipated with vehicle speed or mix that would affect that conclusion.

It should be noted, access to the proposed project site will be provided through one full-movement truck driveway on Manor Road and one full-movement driveway for employees on Middle Road. No truck access is anticipated on Middle Road and so, will avoid additional commercial vehicle sound impact to the residences located south of the Middle Road and Manor Road intersection.

3.2 **Operational Analysis**

The proposed project includes an asphalt and concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage to office and storage space. The proposed business would have two crushing/screening equipment stations and five asphalt/concrete stockpiles. Ten-foot deep buffers would be provided along the eastern, western and southwestern property boundaries and 20-foot deep buffers would be provided along the southeastern and northerly property boundaries. Existing vegetation in the southeastern and southwestern portions of the site will remain. The proposed driveway will be surfaced with RCA and topsoil and hydro seeding is proposed in non-operational areas.

Equipment use for the proposed asphalt and concrete crushing and screening site would generate sound levels varied from the existing ambient level. These sound pressure levels will reduce with distance. Given initial source measurement standardized at 50 feet from the sound source, every

doubled distance will decrease the noise level by approximately 6 dB(A).[5] Table 6 below provides an inventory of proposed machinery sound level specifications and decrease in levels with distance.

TABLE 5

SOUND PRESSURE LEVEL WITH DISTANCE

Equipment/Sound Source	Average Exterior Sound Level	Source Distance with Sound Reduction		
		50 Feet	100 Feet	200 Feet
Cat 938 M wheel loader	101.0 dB(A)	77	71	65
Cat 966 M wheel loader	100.0 dB(A)	76	70	64
EW160 E Volvo excavators	100.0 dB	76	70	64
EC210B Prime Volvo excavator	104.0 dB(A)	80	74	68
Cat 299D2 compact tract loader	104.0 dB(A)	80	74	68
DE11E3S diesel generator set	88.0 dB(A)*	64	58	52
Mobirex MR 130 Z/130 Zi EVO 2	99.0 dB **	75	69	63
Chieftain 1700	104 dB(A)***	80	74	68
* coming from CAT sound pressure levels in an enclosure				
** source Mobirex dealer, 99.0 dB from side with engine, and 88.5 dB from the other side				
*** source CDC Noise Assessment of Stone/Aggregate Mines				

Sound levels, as a result of the facility, will have an insignificant effect on the south property line located along Middle Road. Distances from equipment to Middle Road measure greater than 300 feet and, although it may see an increase in sound level, is not projected on to residential occupied lots.

Noise emanating from property lines along the west and southwest will also have insignificant effect on the adjacent properties. These lots are zoned for industrial and vacant land in industrial area. The Town of Riverhead Chapter 251, §251-5 L (5) limits noise generated by the project and entering adjoining properties zoned industrial use by the chart in §251-5(a). Per the ordinance, continuous sound-in-air for 16 hours cannot exceed 82 dB(A)[6]. Thus, sound level is reasonable in these areas.

As proposed, facility will operate from 6 AM to 8 PM (Mondays through Fridays), from 6:30 AM to 5 PM (Saturday), and between the hours of 7 AM and 2 PM on Sundays. Materials truck

[5] Assessing and Mitigation Noise Impacts.
[6] Based on Sound level 80 dB(A) (slow response).

arrivals/departures and on-site activities causing significant levels of noise generated by equipment will not be allowed outside of those hours.

Although residentially occupied areas occur to the northeast and east, these properties are classified as Industrial A Zoning use district. Thus, the Town of Riverhead Chapter 251, §251-5 L (5) and use chart §251-5(a) will apply to these properties as well. Per the ordinance, continuous sound-in-air for 16 hours cannot exceed 82 dB(A)[7]. Thus, sound level is reasonable in these areas.

Analysis of sound levels were also analyzed per Part 360. Solid Waste Management Facilities General Requirements. Per, 360.19 Operating requirements, the proposed Asphalt and Concrete Crushing and Screening Facility could be mandated to maintain sound levels equivalent to suburban areas as provided in the ordinance. Sound levels beyond the property line must adhere to the L_{eq} sound level limit presented in 360.19(d)(8)(j) if locations are authorized for residential use. Although residentially occupied areas occur to the east, these properties are classified/zoned as Industrial A Zoning use district. Per Town of Riverhead, NY / Part III: Zoning And Land Development / Zoning and Land Development / Districts Article XXIII Industrial A (Ind A) Zoning Use District "is to allow industrial and warehousing uses in defined areas, primarily located north and west of the terminus of the Long Island Expressway." Thus, it is not authorized for residential purposes.

Exploring options for existing or proposed noise abatement to alleviate sound levels to residentially occupied properties was undertaken during this analysis. The existing house and garage structure to the immediate easterly property, identified as 1776 Middle Road will act as a barrier which attenuates noise dispersion further to the east. Per the FHWA, "a two-story building can reduce noise levels on the side of the building away from the noise source by about 13dBA."

Proper locations of site activities will allow noise level reduction from the source equipment, thus minimizing noise to the adjacent receptors. The proposed crusher/screening equipment have been strategically placed (1) along Manor Road where existing ambient sound levels are higher and (2) in the center of the site approximately 215 feet west of the eastern property boundary. As per Table 5, sound levels 200 feet from the source are approximately 68 dB(A) for the crusher/screening equipment. In order to further reduce potential noise impacts on its residential neighbors, crushing operations (which would generate the most noise) may be limited in time, possibly to the hours between 10 AM and 4 PM.

In addition, per NYSDEC's Assessing and Mitigation Noise, "stockpiles of raw material or finished product can be an effective sound barrier if strategically placed." Stockpiles have been intentionally placed along the western side of the eastern leg of the driveway/ring road. Lastly, site design includes ten-foot deep buffers along the eastern, western and southwestern property boundaries and 20-foot deep buffers along the southeastern and northerly property boundaries.

It should be noted that on August 11, 2020, B. Laing Associates, Inc. conducted sound monitoring efforts at a similar facility located on Grand Boulevard, Westbury, New York. Four (4) samples were obtained around the existing facility and one (1) sample within the residential area to the south. Although these sampling results were not representative of the subject site, because of the intensity of development surrounding the Westbury site, the reduction of sound level, as it pertains to distance, was evident in the sampling results. For example, the L_{eq} in the residential area was 52.2 dB(A). This sample was taken approximately 265 feet south of the Westbury facility where L_{eq} sample results were 69.6 dB(A).

[7] Based on Sound level 80 dB(A) (slow response).

3.3 **Construction Sound Analysis**

During construction, noise levels will be (1) temporary and (2) will occur at two distinctly different levels. First, the temporary component results from the transient nature of the construction process. The U.S. EPA reports sound levels at construction projects range from a high of 88 dB(A) to a low of 75 dB(A) from grading through finishing operations (U.S. EPA, Construction Noise Control Technology Initiatives, 1980, Table 2.2-as measured at 50 feet).

The approximate location of the proposed construction occurs between both Manor Road and Middle Road. The noise generated during construction is due mainly from diesel engines that run the equipment. Exhaust is typically the predominant source of diesel engine noise, which is the reason that maintaining mufflers on all equipment is imperative. Noise measurements from some common equipment used in construction (aside from referenced above) can be found in *Assessing and Mitigating Noise Impacts* (October 6, 2000 revised February 2, 2001). See Tables 6A and 6B below.

TABLE 6A
CONSTRUCTION SOUND LEVELS

Sound Source	Measurements	1,000 feet	2,000 feet	3,000 feet
Primary and Secondary crusher	89 dB(A) at 100 ft	69.0 dB(A)	63.0 dB(A)	59.5 dB(A)
Hitachi 501 shovel loading	92 dB(A) at 50 ft	66.0 dB(A)	60.0 dB(A)	56.5 dB(A)
Euclid R-50 pit truck loaded	90 dB(A) at 50ft	64.0 dB(A)	58.0 dB(A)	54.4 dB(A)
Caterpillar 988 loader	80 dB(A) at 300 ft	69.5 dB(A)	63.5 dB(A)	60.0 dB(A)
(The Aggregate Handbook, 1991)				

TABLE 6B CONSTRUCTION EQUIPMENT SOUND LEVELS		
Equipment	Decibel Level	Distance in feet
Augered earth drill	80	50
Backhoe	83-86	50
Cement mixer	63-71	50
Chain saw cutting trees	75-81	50
Compressor	67	50
Garbage Truck	71-83	50
Jackhammer	82	50
Paving breaker	82	50
Wood Chipper	89	50
Bulldozer	80	50
Grader	85	50
Truck	91	50
Generator	78	50
Rock drill	98	50
(excerpt and derived from Cowan, 1994)		

No sensitive receptors are within the immediate vicinity of this project. The noise created by the initial phase of the construction process, levels ranging from 75 to 88 dB(A) on site will decrease as a function of distance. Given initial noise measurement standardized at 50 feet from the sound source, every doubled distance will decrease the noise level by approximately 6 dB(A).

Once "rough grading" has been finalized and foundations have been poured then, peak upper sound levels will decline in duration as the construction uses tools which are (1) smaller, (2) less continuous in use and (3) begin to move "indoors." During the subsequent phase of construction, heavy equipment is generally replaced by internal work and hand-equipment for external work. Consequently, it is expected that sound levels at the point of generation will further be reduced to 55 to 75 dB(A). This level of intermittent noise (up to several hours per day) is expected to occur for approximately one year.

At present, the ambient sound levels are primarily a function of traffic on the adjacent local roadways. Temporary noise impacts (i.e., sounds will be audible and distinct but not significantly higher than the current ambient levels for long periods) are anticipated during site construction due to the already amplified ambient sound levels due to traffic.

4.0 MITIGATION

4.1 Mitigation Measures

Few guidelines to assist with noise abatement include preservation of existing vegetation for noise attenuation, utilizing and maintaining exhaust silencers and mechanical equipment for trucks, compressors, cranes and other equipment, equipment baffles/mufflers and shut-down equipment when not in use (no idling of unused equipment in excess of State regulations). To the extent practical, noisy equipment shall be kept far from site boundaries and scheduling several noisy operations concurrently to reduce long exposure to noticeable sound levels. Air compressors shall have critical environmental silencers with maximum noise attenuation. Strobe lights shall be substituted for back up signals when possible. In addition, the proposed Project will limit operations from 6 AM to 8 PM (Mondays through Fridays), from 6:30 AM to 5 PM (Saturday), and between the hours of 7 AM and 2 PM on Sundays.

The analysis revealed that potential, minor noise impact may occur to adjacent, residentially zoned properties to the east as a result of the proposed action. Noise mitigation measures are discussed herein and recommendations are provided to be put in-place to reduce any potential intrusive or very noticeable sound levels that could occur.

In addition, as provided in Section 3.0 above, design elements of the proposed action have provided further means of abatement. These include proper locations of site activities including placement of the crusher/screening equipment distant from property boundaries, utilizing stockpiles as a sound barrier close to the source and limiting hours of operations that would affect neighbors.

In order to further abate sound levels that may impact residentially zoned properties to the east, it is recommended to install a sound barrier along the eastern portion of the site along the driveway/ring road. These barriers can include an absorptive sound wall, earthen berms or gabion basket retaining wall. Berms can provide up to a 5-6 dB(A) sound reduction when designed accurately. However, type of barrier would require adequate room on-site due to shape and height. Analysis of existing available land must be undertaken to determine if a berm can be constructed on-site. Gabions can be very absorptive (10 to 20 decibels for sound directed towards them) and their randomized surface faces cause a very scattered reflection of the remaining sounds (resulting from the broken rocks they contain). Any of these options would provide an adequate noise barrier for the properties to the east.

No significant, adverse noise impacts would be expected from the slight increase of vehicular traffic associated with the project. Per Chapter 2 of this analysis, a doubling of traffic volume (assuming speeds and vehicle mixes do not change) equates to an increase in noise of 3 dBA utilizing this screening type approach. A 3dBA increase is unnoticed to tolerable according to the NYSDEC noise evaluation guidelines in "Assessing and Mitigating Noise Impacts." No doubling of traffic will occur as a result of this project.

APPENDIX A

Measurement Reports

Measurement Report

Measurement Details

Date and Time: 8/25/2020 9:40 AM

Sound Level Meter: Cirrus Research plc

Run Duration: 00:09:21 hh:mm:ss

Range: 40-110 dB

Overload: no

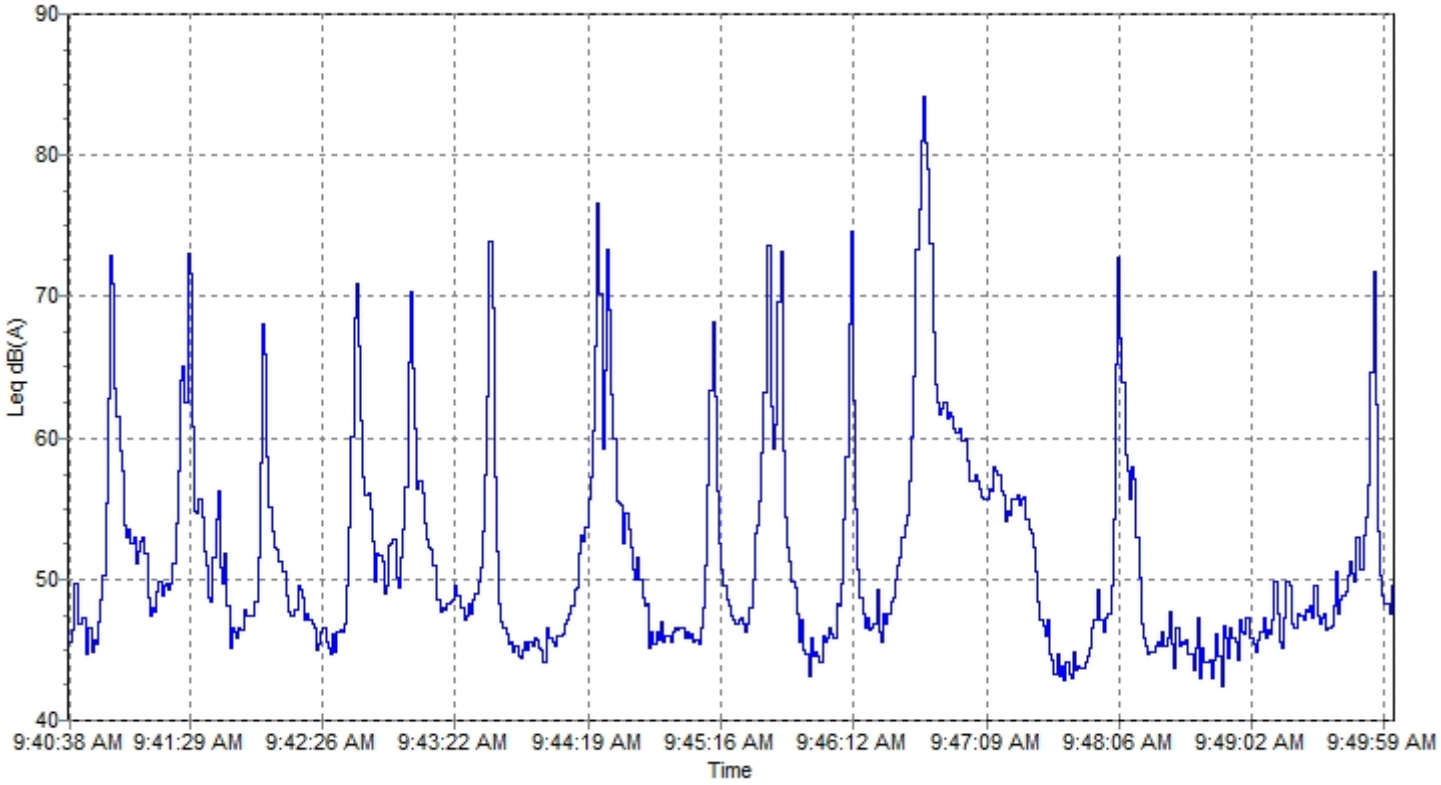
Location: NPVCVT01- Manor Road Entry

Notes:

81 Degrees, Sunny, Minimal wind

Data

Leq	63.5 dBA	L1.0	84.8 dBA
Lepd	46.4 dBA	L5.0	84.8 dBA
LAE	90.8 dBA	L10.0	84.8 dBA
LAFmax	84.8 dBA	L50.0	51.9 dBA
Peak	104.1 dBC	L90.0	44.6 dBA
		Lmin	42.0 dBA



Measurement Report□

Measurement Details□

Date and Time:□□ 8/25/2020 10:10 AM□□

Sound Level Meter:□□ Cirrus Research plc □□

Run Duration:□□ 00:09:56□hh:mm:ss□□

Range:□□ 40-110 □dB□□

Overload:□□ no□□

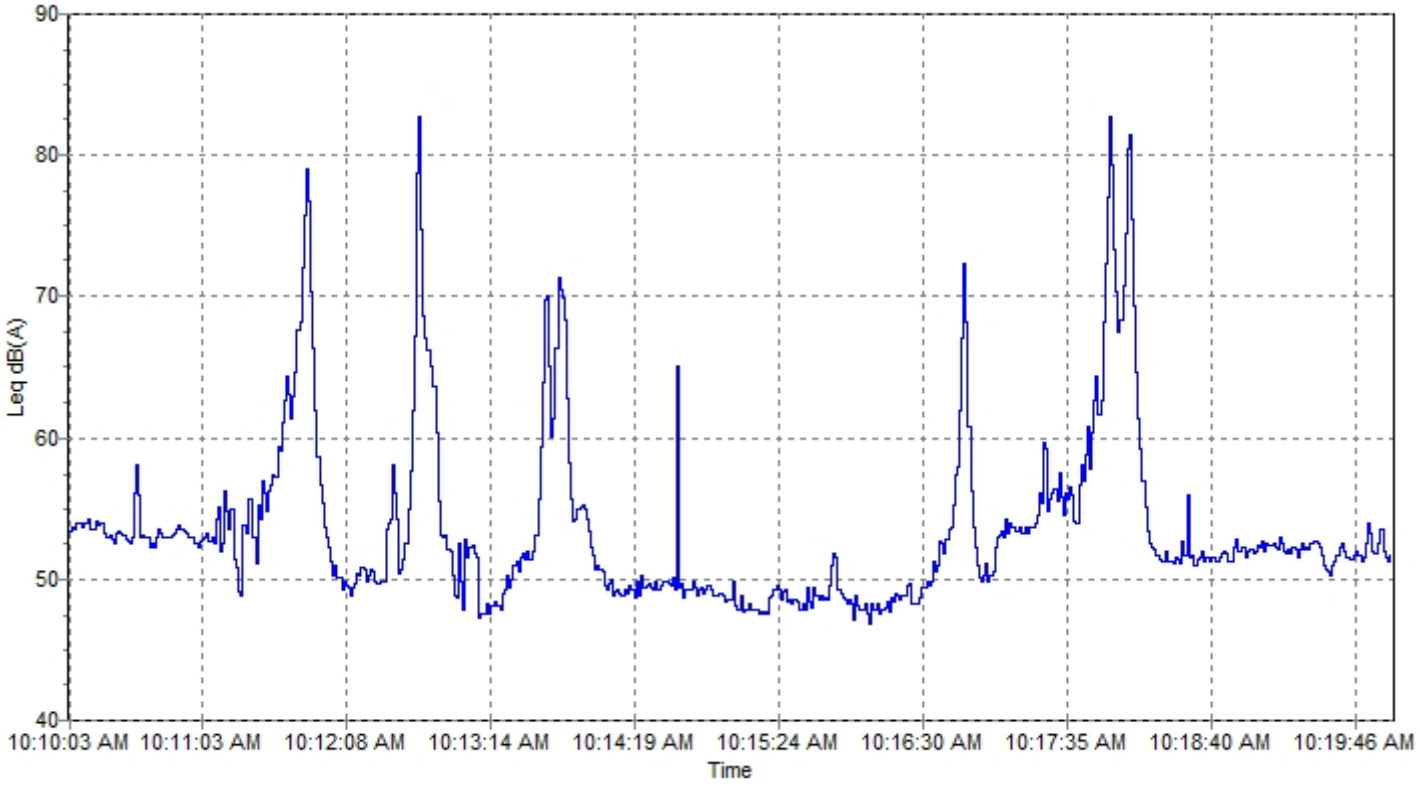
Location:□□ NPVCVT01- Middle Road Entry□□

Notes:□□

81 Degrees, Sunny, Minimal wind□□

Data□

Leq□□	64.2□□dBA□□	L1.0□□	85.2□□dBA□□
Lepd□□	47.3□□dBA□□	L5.0□□	85.2□□dBA□□
LAE□□	91.7□□dBA□□	L10.0□□	85.2□□dBA□□
LAFmax□□	85.2□□dBA□□	L50.0□□	53.2□□dBA□□
Peak□□	102.3□□dBC□□	L90.0□□	48.4□□dBA□□
		Lmin□□	46.4□□dBA□□



Measurement Report□

Measurement Details□

Date and Time:□□ 8/25/2020 10:20 AM□□

Sound Level Meter:□□ Cirrus Research plc □□

Run Duration:□□ 00:09:21□hh:mm:ss□□

Range:□□ 40-110 □dB□□

Overload:□□ no□□

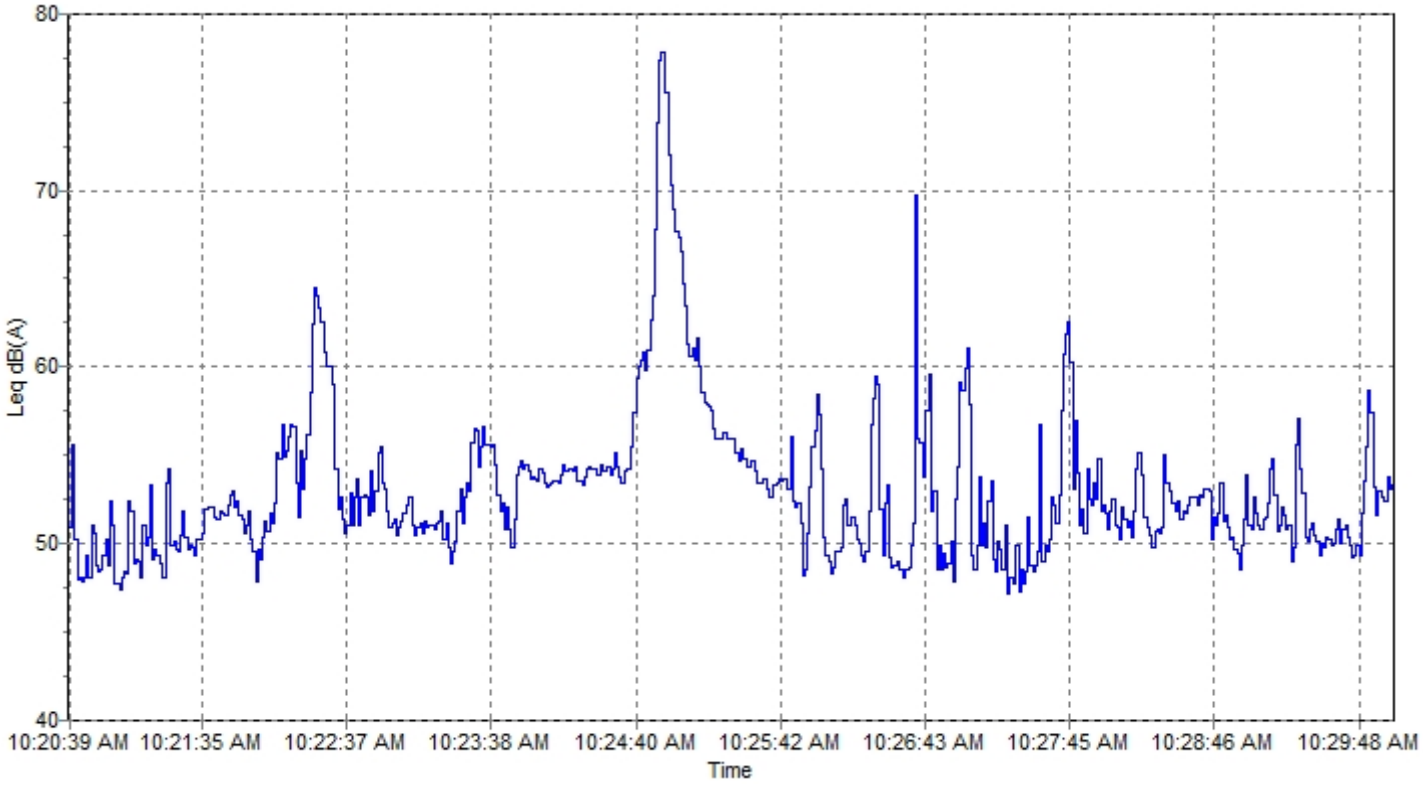
Location:□□ NPVCVT01- Indus. Yards Along Middle Road□□

Notes:□□

81 Degrees, Sunny, Minimal wind□□

Data□

Leq□□	58.9□□dBA□□	L1.0□□	67.3□□dBA□□
Lepd□□	41.8□□dBA□□	L5.0□□	60.4□□dBA□□
LAE□□	86.2□□dBA□□	L10.0□□	57.5□□dBA□□
LAFmax□□	79.3□□dBA□□	L50.0□□	51.6□□dBA□□
Peak□□	97.7□□dBC□□	L90.0□□	48.3□□dBA□□
		Lmin□□	46.1□□dBA□□



Measurement Report□

Measurement Details□

Date and Time:□□ 8/25/2020 11:50 AM□□

Sound Level Meter:□□ Cirrus Research plc □□

Run Duration:□□ 00:09:56□hh:mm:ss□□

Range:□□ 40-110 □dB□□

Overload:□□ no□□

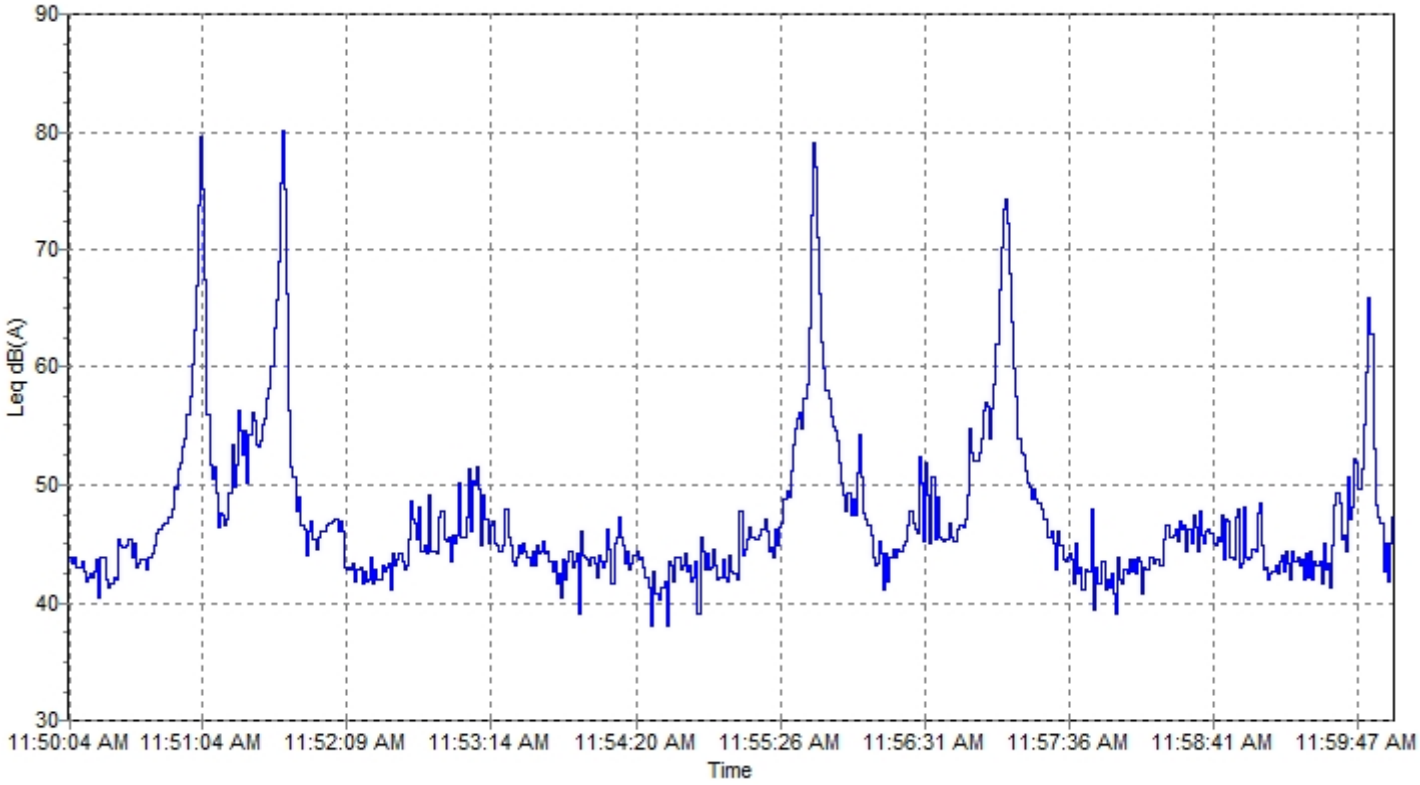
Location:□□ NPVCVT01- Residential Area Along Middle Rd□□

Notes:□□

81 Degrees, Sunny, Minimal wind□□

Data□

Leq□□	60.6□□dBA□□	L1.0□□	81.3□□dBA□□
Lepd□□	43.8□□dBA□□	L5.0□□	81.3□□dBA□□
LAE□□	88.2□□dBA□□	L10.0□□	81.3□□dBA□□
LAFmax□□	81.3□□dBA□□	L50.0□□	49.2□□dBA□□
Peak□□	97.8□□dBC□□	L90.0□□	41.8□□dBA□□
		Lmin□□	39.4□□dBA□□



APPENDIX H
PROPOSED C&D PROCESS FACILITY, VIBRATION REPORT

Analysis & Computing, Inc.
September 2020

Breezy Hill Group, LLC

Proposed Construction and Demolition Processing Facility

at

1792 Middle Road, Calverton, NY 11933

Prepared for

NELSON, POPE & VOORHIS
Melville, NY

Prepared by

ANALYSIS & COMPUTING, INC.
Hicksville, NY

September, 2020

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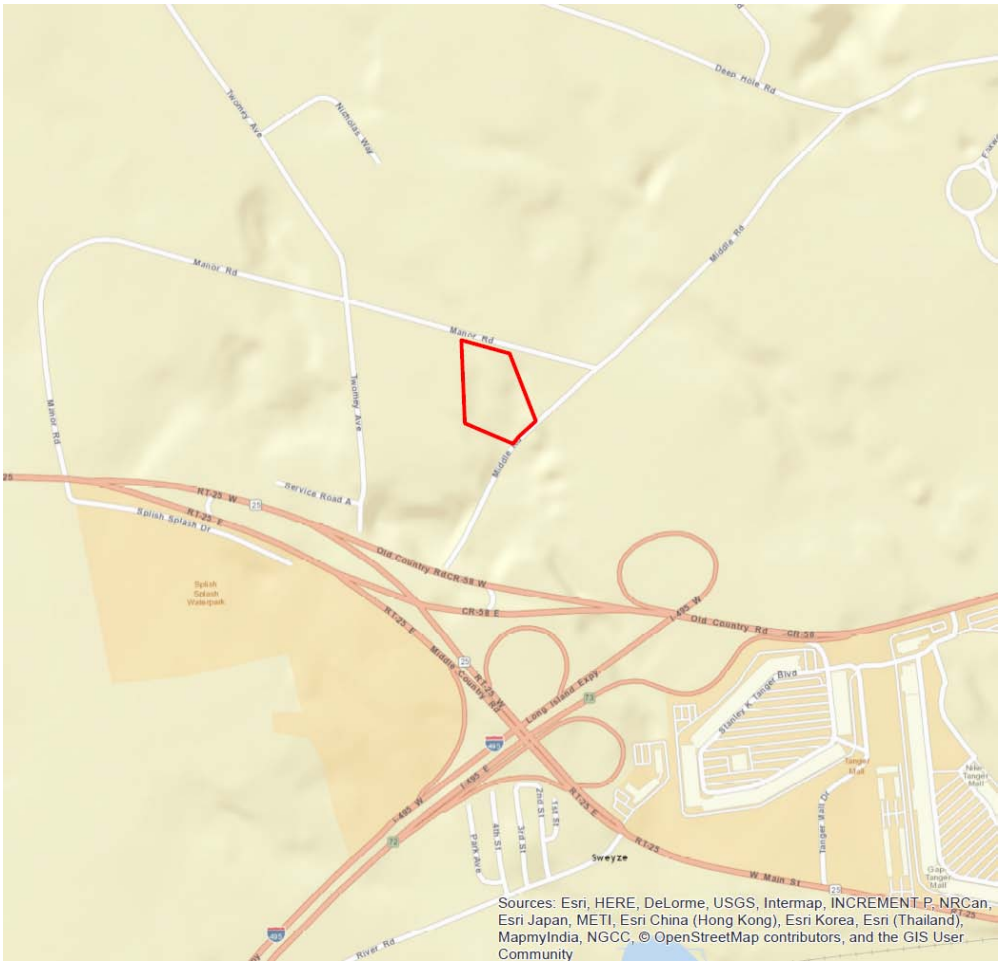
1.0 INTRODUCTION

Breezy Hill Group, Inc. proposes an asphalt and concrete construction and demolition (C&D) processing facility at 1792 Middle Road, Calverton, in the Town of Riverhead, New York. The Suffolk County Tax Map designates the location as District 600, Section 100, Block 2, Lot 4.2. (See Figure 1) This study evaluates potential environmental vibration impacts as per applicable Federal, State and Local criteria, standards, and guidelines.

Figure 1-1 Project Location (site boundaries outlined in red)



Source: Extracted from Full Environmental Assessment Form submitted January 23, 2018.

Onsite operation will consist of primarily asphalt and concrete crushing with two crushing/screening equipment stations and five asphalt/concrete stockpiles. Figure 1-2 presents the proposed layout of the site. The bulk of the operation will occur in the northern two-thirds of

the site. Two crushing stations are planned with five piles. The truck entrance is from Manor Road at the north of the property. An internal roadway is proposed for the trucks, which encompasses the work area.

Figure 1-2 Project Site Layout

Source: Extracted Draft EIS by Nelson & Pope, Engineers & Surveyors, Figure 1-3b dated March 25, 2020.

The land-use immediately to the west and north (across Manor Road) of the site is predominantly farmland. Residences can be found to the east and southeast (across Middle Road), within districts presently zoned as industrial. A concrete production facility is located to the south and southwest. The nearest habitable residential structure is located at 1776 Middle Road, immediately east of the site.

Onsite equipment with the greatest potential for generating vibrational impacts include a Caterpillar 966M Loader, Kleemann Mobirex MR130 EV02 Track Mounted Crusher and loaded heavy trucks. One rock crusher is to be located near the northwest corner of the site with a second near the center. A roadway for heavy trucks encompasses the rock crushers and asphalt and concrete piles. The loaders will mainly operate within the roadway.

1.1 NOISE AND VIBRATION TERMINOLOGY

1.1.1 Ground-borne Vibration

Ground-borne vibration is influenced by such factors as generating source characteristics, soil characteristics and building structure (receptor) design. In general, ground-borne vibration generators radiate vibrational energy into the soil in the form of Compression, Shear, and Rayleigh surface waves. The nearest face of the foundation or underground building wall responds to the incident ground-borne vibration and propagates the waves throughout the building. The resulting ground-borne vibration is a function of the magnitude of the energy source, distance from the source, response characteristics of the transmitting media (rock/soil), and response characteristics of the structural element (e.g. foundation, building, etc.).

The waves spread as they propagate away from the source thus decreasing in intensity with distance, known as divergence or spreading loss. In addition to this spreading loss, the waves also lose some of their energy through absorption by the soil particles, known as absorption loss. When vibration energy is transmitted from one medium to another (e.g. soil to a concrete foundation), there is a further reduction in energy, referred to as the coupling loss.

There is much less consensus about the scales and indices used in the measurement of ground-borne vibration. For some fields of interest such as mining and construction industries, structural damage potentials are of interest and measurements are typically made in inches per second (ips)

for Peak Particle Velocity (PPV). This descriptor is recommended by the U. S. Bureau of Mines and is widely adopted by the mining and construction industries for structural damage potential assessment with many Federal, State, and Municipal construction codes prescribed in peak ground particle velocities. Environmental vibration levels inside buildings typically range between 0.0002 ips and 0.004 ips resulting from general traffic outside. The approximate vibration limit for a room designed to house supercomputers is 0.08 ips. The US Bureau of Mines specifies 0.5 ips as the safety limit to protect old buildings from ground vibration.

However, the use of PPV is not suited for gauging human response. Human response is more sensitive to the average vibration amplitude, such as the root-mean-squared (RMS). The Federal Transit Administration (FTA) utilizes a standard vibration decibel level (VdB), defined as:

$$VdB = 20 \log_{10} \left(\frac{v}{v_{ref}} \right)$$

where v_{ref} is the reference velocity in RMS at 10^{-6} ips and 1g for acceleration levels[1].

The vibration frequency range of interest may be very small or very large. A large number of studies on ground motions and structure response have indicated that the typical residential structure responds to and is most susceptible to damage by low frequency excitations around 10 - 30 Hz. With this reasoning, and the fact that higher frequency vibrations suffer a much greater ground absorption loss, the frequency range for many vibration studies is typically limited to below 200 Hz.

[1] Federal Transit Administration/USDOT. Transit Noise and Vibration Impact Assessment. May 2006. FTA-VA-90-1003-06.

1.2 REPORT ORGANIZATION

This report has been organized into six sections. Section 2.0 presents the regulations, policies, and guidelines for vibration impact assessments. Section 3.0 describes the approach taken by this study. Section 4.0 presents the results of an equipment vibration measurement program. Section 5.0 presents the vibration impact assessment and comparison with project vibration impact criteria. Section 6.0 provides the study's conclusions.

2.0 REGULATIONS, POLICIES AND GUIDELINES

Currently there is no Federal, State or Local regulations that set vibration design standards for C&D operations. There are, however, governmental and professional guidelines, which recommend vibration levels for structural damage, human comfort and annoyance.

In April 1995, the US Department of Transportation - Federal Transit Administration (FTA) published "Transit Noise and Vibration Impact Assessment", a guidance manual for the assessment of transit noise and vibration impacts, updated on May 2006. This assessment manual contains guidelines for transit-related vibration.[2] However, the methodology can readily be utilized for more generic applications and as can the criteria.

The FTA ground-borne vibration guidelines, indicated in Table 2-1 below, are based on the maximum velocity levels by land use categories. The criteria for vibration are expressed in terms of RMS velocity levels in decibels (VdB) referenced to 10^{-6} ips. A vibration level of 65 VdB is considered to be the threshold of perception for a typical person. The human body does not respond to cumulative vibration at the level found in the environment. However, studies have shown that there is an increased annoyance as the frequency of vibration events increases. Consequently, the criteria for vibration impacts to people subject to frequent events are weighted by 8 VdB.

For buildings, the PPV vibration damage threshold criterion of 0.50 inches per second (approximately 102 VdB) is used, and 0.20 inches per second (approximately 94 VdB) for fragile buildings.

There are no State of New York or Town of Riverhead vibration regulations or standards specifically addressing impact on the community.

[2] Federal Transit Administration/USDOT. Transit Noise and Vibration Impact Assessment. April 1995, rev. May 2006.

Table 2-1 FTA Ground-Borne Vibration and Noise Impact Criteria

Land Use Category	Ground-Borne Vibration Impact Levels (VdB re 1 micro inch/sec)		Ground-Borne Noise Impact Levels (dB re 20 micro Pascals)	
	Frequent[1] Events	Infrequent[2] Events	Frequent[1] Events	Infrequent[2] Events
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB[3]	65 VdB[3]	N/A[4]	N/A[4]
Category 2: Residences and buildings where people normally sleep.	72 VdB	80 VdB	35 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB	83 VdB	40 dBA	48 dBA

Notes:

1. *Frequent Events* is defined as more than 70 vibration events per day.
2. *Infrequent Events* is defined as fewer than 70 vibration events per day.
3. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.
4. Vibration-sensitive equipment is not sensitive to ground-borne noise.

3.0 STUDY APPROACH AND IMPACT CRITERIA

The assessment utilized the methodologies presented in FTA's Transit Noise and Vibration Impact Assessment Report, revised May 2006.

3.1 EQUIPMENT VIBRATION LEVELS

The FTA guidance manual lists conservative vibration levels for various construction equipment, similar to the equipment to be used in the proposed facility. However, none of the equipment listed is similar and equivalent to a rock crusher. Consequently, a vibration measurement program was conducted to collect data from an operating rock crusher. These equipment vibration levels were then used to predict vibration levels near the nearest sensitive receptors.

3.2 PROJECT VIBRATION IMPACT CRITERIA

Federal vibration standards and guidelines with respect to community response are very consistent and often adopted by various State and Local governments, making their standards suitable for this project for both its operation and construction.

The project's operational vibration levels shall be assessed against the FTA's 72 VdB vibration threshold for residences subject to frequent events, a more stringent limit than that for residences with infrequent vibration events.

For the construction vibration impact assessment, vibration levels during construction will be conservatively assess against the FTA's building damage threshold of 0.20 ips for fragile buildings.

4.0 ROCK CRUSHER VIBRATION MEASUREMENT PROGRAM

Access was gained to an operating rock crusher, a Lippmann 3548 with 200 hp. Measurements were taken on August 24, 2020, utilizing an EDR-3C-2 recorder with a built-in triaxial accelerometers. The calibration certificate can be found in the Appendix.

The accelerometer was tightly affixed to metal stakes driven in to the ground. Two rock crushers were in operation, one behind the other. The stakes were driven in approximately 50 feet from the nearest rock crusher, which was the Lippmann 3548, the more powerful of the two. Typically, vibration levels from different sources do not add since it is difficult for multiple sources to synchronize into a constructive wave.

4.1 VIBRATION MEASUREMENT RESULTS

The seven highest vibration measurement results (RMS) from the rock crusher measurements, based on the resultant values (i.e. the combined value from the x-, y-, and z-axes), at approximately 50 feet are presented in Table 4.1-1 below.

Table 4.1-1 Measured Rock Crusher Vibration Levels at 50 Feet

Sample	Vibration Level (ips, RMS)	Vibration Level (VdB, RMS)	Peak Frequency (Hz)
A	0.00417	72	64
B	0.00378	72	69
C	0.00382	72	69
D	0.00411	72	66
E	0.00379	72	67
F	0.00385	72	67
G	0.00397	72	67

It can be seen that the vibration levels are very consistent at 72 VdB and the peak frequency in a very tight frequency range, between 64 Hz to 69 Hz.

5.0 GROUND-BORNE VIBRATION IMPACT ASSESSMENT

The main variables for assessing ground-borne vibration impacts are:

- Vibration levels of the vibration generating source;
- Soil characteristics regarding vibration propagation;
- Distance from source to receptor; and
- Coupling loss from soil to building structure.

5.1 REFERENCE VIBRATION LEVELS

The equipment reference vibration levels used in the assessment are presented in Table 5.1-1. These equipment have the highest vibration generation used in the daily operation at the site.

Table 5.1-1 Reference Vibration Levels

Equipment	Reference Dist (ft)	Vibration Level (VdB)	
		VdB	PPV (ips)
Rock Crusher	50	78	.033
Front Loader	25	87	.089
Loaded Truck	25	86	.076

The project plans on using a Kleemann Mobirex MR130 EVO2 Track Mounted Crusher, which has been rated at about twice the horsepower (416 hp) than the Lippmann 2048 rock crusher (200 hp). Consequently, the vibration level utilized for the purposes of the assessment has been increased by 208% to account for the increase in power. It should be noted that the Lippmann 2048 measured is a stationary rock crusher, firmly affixed to concrete foundations imbedded into the ground, potentially result in much better vibration energy transmission from the rock crusher into the soil than a rock crusher mounted on tracks, such as the Kleemann Mobirex. Since a Kleemann Mobirex was not available at the time of this study for vibration level measurements, the coupling losses from the rock crushers into the soil were not considered, resulting in a more conservative estimate.

Reference vibration levels from Table 12-2 in the FTA guidance manual were used for the front loader and loaded trucks.[3] No vibration levels for front loaders were available. Instead, the reference vibration level for a large bulldozer was used in lieu of a front loader. Large bulldozers typically are tracked equipment and could potentially generate greater vibration levels. The

[3] Federal Transit Administration/USDOT. Transit Noise and Vibration Impact Assessment. April 1995, rev. May 2006.

Caterpillar 966M front loader planned for this project is a wheeled front loader. Consequently, reference vibration levels for the front loader can be expected to be conservative.

The FTA manual does provide a reference vibration level for loaded trucks.

5.2 ESTIMATED VIBRATION LEVELS

Reference vibration levels were adjusted for distance using the formula provided in the FTA manual:

$$PPV_{equip} = PPV_{ref} \times \left(\frac{D_{ref}}{D}\right)^{1.5}$$

Where PPV_{equip} is the vibration level of the equipment in PPV (ips) adjusted for distance, PPV_{ref} is the reference velocity in PPV (ips) at a reference distance, D_{ref} is the reference distance, and D is the distance from the equipment to the receptor. The distance for the rock crusher is measured from the center of the southernmost rock crusher to the nearest corner (northwest corner) of the residential structure at 1776 Middle Road. The distance from the front loader and loaded truck is measured from the roadway centerline of the southeast curve of the roadway encircling the work area, to the nearest corner (northwest corner) of the residential structure at 1776 Middle Road.

The resultant vibration levels at the nearest residence are presented in Table 5.2-1. Vibration levels transitioning from the soil into a building experience a coupling loss. According to Table 10-2 from the FTA guidance manual, a coupling loss of 5 VdB is typical for lightly constructed wood-framed buildings.[4] It can be seen that the projected vibration levels are below what is considered the threshold of perception for the average person, 65 dBA.

Table 5.2-1 Vibration Levels at Receptor

Equipment	Ref Dist (ft)	Ref Vibration Lvl (VdB)		Dist (ft)	Vibration Lvl (VdB)	
		VdB	PPV (ips)		Exterior	Interior
Rock Crusher	50	78	.033	330	54	49
Front Loader	25	87	.089	145	64	59
Loaded Truck	25	86	.076	145	63	58

[4] Federal Transit Administration/USDOT. Transit Noise and Vibration Impact Assessment. April 1995, rev. May 2006.

5.3 CONSTRUCTION VIBRATION

Construction activities generally have a temporary impact on sensitive receptors in the immediate vicinity of the construction site. The extent of the construction associated vibration impact depends upon the nature of the construction, the construction schedule and vibration characteristics of the construction equipment deployed. Complaints typically arise when construction efforts interfere with people's activities, especially when the community is caught unaware or has insufficient information about the extent or duration of the construction. Construction at the site is expected to be between three to six months due to the nature of this project. The bulk of the construction for this project involves the vegetative clearing, earth moving, and grading. However, construction close to residential receptors is expected to be of very short durations since the much of the vegetation closest to the residence at 1776 Middle Road is to be left untouched. The construction equipment with highest vibration generating potential is expected to be a bulldozer. For the construction assessment, a large bulldozer is assumed to be used. The closest the equipment is expected to come to the residence at 1776 Middle Road is 60 feet. The PPV expected at this distance is 0.0239 ips, or 76 VdB.

5.4 COMPARISON WITH PROJECT IMPACT CRITERIA

The project adopts the criteria presented in FTA's Transit Noise and Vibration Impact Assessment guidance manual.

5.4.1 Operational Vibration Impacts

The predicted vibration levels at the nearest residence with the project impact criteria are presented in Table 5.4.1-1.

Table 5.4.1-1 Worst Case Vibration Levels Comparison to Impact Criteria

Equipment	Ref Vibration Lvl (VdB)		Dist (ft)	Project Criteria (VdB)	Vibration Lvl (VdB)	
	VdB	PPV (ips)			Exterior	Interior
Rock Crusher	78	.033	330	72	54	49
Front Loader	87	.089	145	72	64	59
Loaded Truck	86	.076	145	72	63	58

It can be seen from Table 5.4.1-1 that the expected vibration levels form all three equipment are well below the impact criteria. The estimated vibration levels indoors are well below what is commonly considered the threshold of perception, 65 VdB.

5.4.2 **Construction Vibration Impacts**

The predicted vibration levels at the nearest residence with the project construction impact criteria for fragile buildings are presented in Table 5.4.1-1. Unlike the impact criteria for operations, which focus on community response, the construction impact criteria focus damage to structures. The project construction impact threshold presented is the damage threshold of fragile buildings. Presently, there is no indication that the residential structures are fragile, but are conservatively assumed to be for the purposes of this assessment. The vibration levels in VdB have been presented for informational purposes.

Table 5.4.2-1 Worst Case Projected Vibration Levels Comparison to Construction Impact Criteria

Equipment	Ref Vibration Lvl		Dist (ft)	Project Criteria		Vibration Lvl	
	VdB	PPV (ips)		VdB	PPV (ips)	VdB	PPV (ips)
Large Bulldozer	87	.089	60	100	0.200	76	.0239
			145	100	0.200	64	.0064

It can be seen from Table 5.4.1-1 that the expected construction vibration level does not even approach the project construction vibration criteria level of 0.2 ips. The front loader is expected to be in operation at 60 feet only a short length of time.

The predicted vibration level of 76 VdB at 60 feet is the exterior vibration level. Factoring a coupling loss of 5 VdB, the interior vibration level would be 71 VdB, just below the FTA residential vibration impact threshold for residences subject to frequent events and well below the 80-VdB threshold for residences subject to infrequent events.

6.0 CONCLUSION

The proposed project proposes the construction and operation of an asphalt and concrete construction and demolition processing facility. Asphalt and construction debris will be trucked in, processed, and trucked out.

Vibration impacts were assessed based on the results of the detailed analysis and measurements, using Federal methodologies and criteria for estimating and assessing future impacts from the proposed facility.

The results show that the C&D facility is not expected to generate vibration levels that exceed vibration impact thresholds for residences or approach the damage thresholds for fragile structures, even though there are no known structures in the immediate vicinity of the project site that would be considered structurally fragile.

It is, therefore, concluded that the proposed C&D operation and construction are not expected to exceed applicable vibration criteria and are not expected to cause vibration impacts.

Appendix

CERTIFICATE OF CALIBRATION

Model Number: EDR-3C-2
Serial Number: 1587
Memory: 4 MB

Hardware Version: HC11v5A
Firmware Version: 3Cv1.61
Logic Version: 9100

Internal Accelerometers:	**CH1 (*x*)**	**CH2 (*y*)**	**CH3 (*z*)**
Channel Gains (mV/cnt):	*I1V:* 0.01918	*I2V:* 0.01918	*I3V:* 0.01918
Accelerometer Sensitivities (mV/g):	*I1A:* 4.266	*I2A:* 4.315	*I3A:* 3.978
Accelerometer Measurement Range (g):	2.3	2.3	2.5
Accelerometer Measurement Resolution (g):	.004	.004	.005

Temperature Coefficient (per °C): *ATC:* -0.2 % Calibration Temperature: 25 °C

Accelerometer Frequency Response: 250 Hz
Accelerometer Resonant Frequency: 700 Hz

External Accelerometers:

Channel Gains (mV/cnt):	*E1V:* N/A	*E2V:* N/A	*E3V:* N/A

Temperature Sensor, Humidity and Battery Voltage:

Internal Temperature Sensor (°C per cnt):	*ITS:* .6241
Accelerometer Temperature Sensor (°C per cnt):	*ATS:* .6241
External Temperature Sensor (°C per cnt):	*ETS:* N/A

Humidity Sensor: *HSO:* N/A *HSG:* N/A

Battery Voltage Sensor (V/cnt): *BVS:* .01333

Fixed Hardware Operating Characteristics:

Accelerometer Channel Low-Pass Filter (Anti-Aliasing) 3db Cut-Off:

Internal: 200 Hz
External: 200 Hz

Power-Up Voltage: 5.02
Automatic Power-Down Voltage: 4.83
Software Power-Down: 5DFF

Instrumented Sensor Technology, Inc.'s calibration procedure is traceable to NIST through the following:

Temperature/Humidity Probe:	61419308	Date: 09/23/19
DVM:	3146A25274	Date: 11/08/19
Accelerometer(s):	102660	Date: 11/15/19

Calibrated by: Tri Huynh Date: 08/06/20

IST Instrumented Sensor Technology

4704 Moore Street
Okemos, Michigan 48864
517-349-8487

APPENDIX I
COMMUNITY SERVICES-RELATED CORRESPONDENCE

NELSON POPE VOORHIS

environmental • land use • planning

September 4, 2020

Town of Riverhead
Administrative Office
Sanitation Department
1295 Pulaski Street
Riverhead, NY 11901
Attn.: Drew Dillingham, PE; Town Engineer

RE: Breezy Hill DEIS, 1792 Middle Road, Calverton

Dear Sir:
Nelson Pope Voorhis is presently preparing a Draft Environmental Impact Statement (DEIS) for the above-referenced project, which is an asphalt and concrete crushing and recycling facility on a developed 6.68-acre site. The contents of the DEIS were specified by the Town Planning Board, and include a description and discussion of the project's conformance to the Update to the Town's Solid Waste Management Plan, which is currently in preparation.

Consequently, this office visited the Town's website on Thursday, September 3, 2020 but was unable to find any Town documents on this issue. Therefore, I called the Sanitation Department and spoke with you to obtain verbal input on this matter. You said that there is presently no Update document extant, and that the Sanitation Department is presently discussing the Update with the NYS Department of Environmental Conservation.

For purposes of inclusion in the DEIS, please review my above description of the status of the Update to the Town Solid Waste Management Plan and provide any corrections or more recent information on this matter.

If you should have any questions, please do not hesitate to call or e-mail me at: pmalicki@nelsonpopevoorhis.com.

Very Truly Yours,
Nelson Pope Voorhis

Phillip A. Malicki, CEP, AICP, LEED® AP
Senior Environmental Planner

cc:

NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • LAND USE • PLANNING
www.nelsonpopevoorhis.com

September 17, 2019

Town of Riverhead Police Department (RPD)
Riverhead Town Justice
210 Howell Avenue
Riverhead, New York 11901
attn: David Hegermiller, Chief of Police

Re: Breezy Hill Group, LLC
Asphalt & Concrete Crushing Facility
Draft EIS
NPV #17060

Dear Chief Hegermiller:

Nelson, Pope & Voorhis, LLC is preparing a Draft Environmental Impact Statement (Draft EIS) for the above-referenced proposal for the 6.68-acre project site (at 1792 Middle Road in Calverton; see attached figure). The site is presently zoned for industrial use. The proposed project would utilize the site for an asphalt and a concrete crushing and screening business. An existing dwelling and barn/garage would be reused for office and storage space for the facility, respectively.

The site is accessible via driveways on Middle Road and Manor Road; the access on Middle Road will be configured to serve the office area, while the Manor Road access will serve trucks delivering and removing the crushed asphalt/concrete material. In this way, all truck traffic will preferentially be directed onto Manor Road. Both accesses will be "stop"-controlled for departing vehicles.

I am writing to obtain information on RPD facilities, services, and capabilities that may be pertinent to the project, to be included in the Draft EIS. Specifically, I am requesting the following:

- Precinct in which the project site is located;
- Location of the stationhouse; and
- Patrol sector assigned to the site.

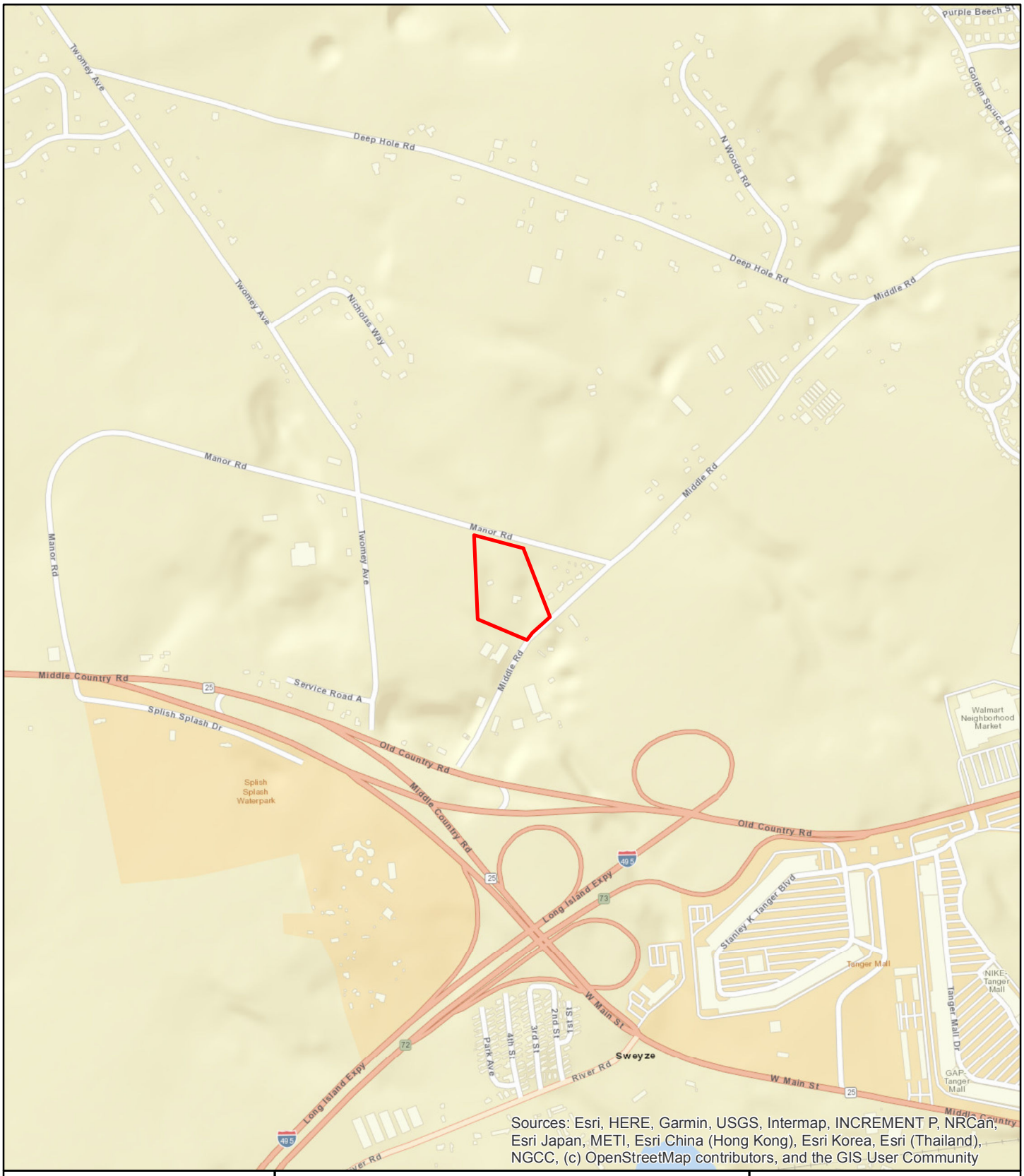
All information provided in your responses will be included in the Draft EIS. If you have any additional information or comments which would be pertinent, please include them. Finally, if you have any questions or require additional information to provide your responses, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE AND VOORHIS, LLC

Phil Malicki, CEP, AICP, LEED® AP
Senior Environmental Planner

LONG ISLAND OFFICE
572 WALT WHITMAN ROAD, MELVILLE, NY 11747-2188
PHONE: (631) 427-5665 • FAX: (631) 427-5620

HUDSON VALLEY OFFICE
156 Route 59, Suite C6, SUFFERN, NY 10901
PHONE: (845) 368-1472 • FAX: (845) 368-1572



NELSON, POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING

FIGURE 1-1b
LOCATION MAP, LOCAL

Source: ESRI Web Mapping Service

Scale: 1 inch = 1,000 feet

N

Breezy Hill Group, LLC
Calverton

Draft EIS

RIVERHEAD POLICE DEPARTMENT

210 Howell Avenue, Riverhead, New York 11901

David J. Hegermiller
Chief of Police

Tel (631) 727-4500 Ext 335
Fax (631) 727-8630

October 7, 2019

RECEIVED
OCT 10 2019
NELSON & POPE

Mr. Phillip Malicki, CEP, AICP, LEED AP
Senior Environmental Planner
Nelson, Pope & Voorhis, LLC
572 Walt Whitman Road
Melville, NY 11747-2188

Dear Mr. Malicki:

I am in receipt of your letter with regards to the Draft EIS for the Breezy Hill Group Asphalt & Concrete Crushing Facility, located at 1792 Middle Road, Calverton and offer the following responses to your questions:

1. The Riverhead Police Department does not consist of various precincts. The project site is located entirely within the Department's jurisdiction.

2. Riverhead Police Headquarters is located at 210 Howell Avenue, Riverhead, New York.

3. The proposed site lies within the 603 patrol sector.

Also, be advised that Middle Road is a weight restricted road. All trucks exiting the facility must exit onto Manor Road, heading west to S.R. 25/Middle Country Road.

If you have any questions or if I can be of further assistance, please feel free to contact me at (631) 727-4500, ext. 335.

Yours for service,

David J. Hegermiller
Chief of Police

DJH/mk

CC: file

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ENVIRONMENTAL • LAND USE • PLANNING
www.nelsonpopevoorhis.com

September 17, 2019

Riverhead Volunteer Fire Department
540 Roanoke Avenue
Riverhead, New York 11901
attn: Peter Jackman, Chief of Department

Re: Breezy Hill Group, LLC
Asphalt & Concrete Crushing Facility
Draft EIS
NPV #17060

Dear Chief Jackman:

Nelson, Pope & Voorhis, LLC is preparing a Draft Environmental Impact Statement (Draft EIS) for the above-referenced proposal for the 6.68-acre project site (at 1792 Middle Road in Calverton; see attached figure). The site is presently zoned for industrial use. The proposed project would utilize the site for an asphalt and a concrete crushing and screening business. An existing dwelling and barn/garage would be reused for office and storage space for the facility, respectively.

The site is accessible via driveways on Middle Road and Manor Road; the access on Middle Road will be configured to serve the office area, while the Manor Road access will serve trucks delivering and removing the crushed asphalt/concrete material. In this way, all truck traffic will preferentially be directed onto Manor Road. Both accesses will be "stop"-controlled for departing vehicles. The project site obtains its potable water from an on-site private well.

I am writing to obtain information on the facilities, services, and capabilities of the department that may be pertinent to the project, to be included in the Draft EIS. Specifically, I am requesting the following:

- The location of the substation(s) which would serve the site;
- A listing of the major pieces of firefighting equipment at each facility;
- The number of firefighters assigned to each facility;
- Indicate any specialized firefighting capabilities of the Department;
- Indicate whether the firefighters are volunteers or full-time.
- Whether the project would or may significantly add to the existing potential need for fire department services; and
- Whether the project would or may significantly increase the need for additional equipment, facilities, training or personnel.

All information provided in your responses will be included in the Draft EIS. If you have any additional information or comments which would be pertinent, please include them. Finally, if

you have any questions or require additional information to provide your responses, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE AND VOORHIS, LLC

Phil Malicki, CEP, AICP, LEED® AP
Senior Environmental Planner

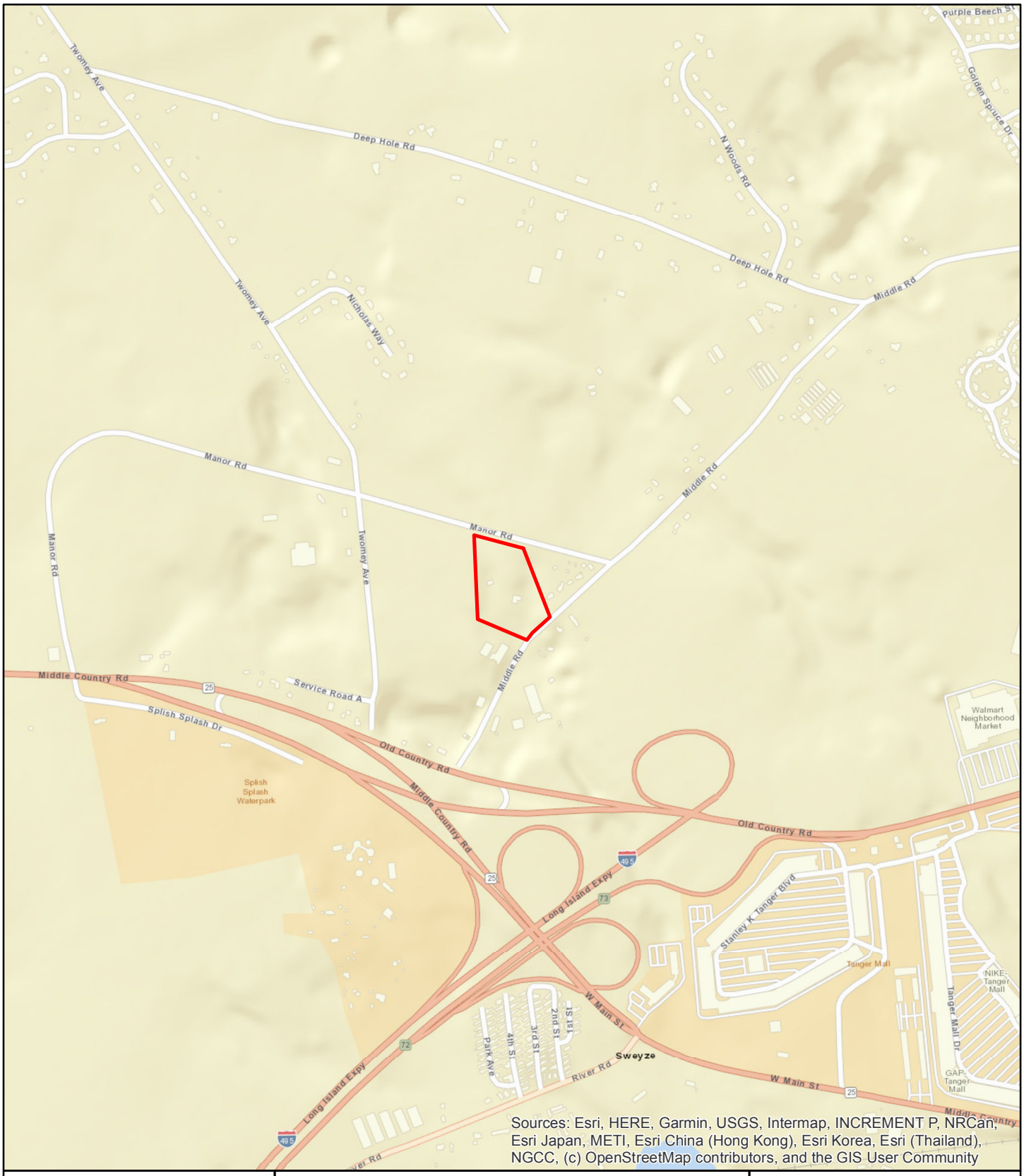

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FIGURE 1-1b
LOCATION MAP, LOCAL

Source: ESRI Web Mapping Service

Scale: 1 inch = 1,000 feet

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Breezy Hill Group, LLC
Calverton

Draft EIS

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www.nelsonpopevoorhis.com

September 17, 2019

Riverhead Volunteer Ambulance Corps, Inc.
PO Box 924
Riverhead, New York 11901
attn: Albert Gehres, District Manager

Re: Breezy Hill Group, LLC
Asphalt & Concrete Crushing Facility
Draft EIS
NPV #17060

Dear Mr. Gehres:

Nelson, Pope & Voorhis, LLC is preparing a Draft Environmental Impact Statement (Draft EIS) for the above-referenced proposal for the 6.68-acre project site (at 1792 Middle Road in Calverton; see attached figure). The site is presently zoned for industrial use. The proposed project would utilize the site for an asphalt and a concrete crushing and screening business. An existing dwelling and barn/garage would be reused for office and storage space for the facility, respectively.

The site is accessible via driveways on Middle Road and Manor Road; the access on Middle Road will be configured to serve the office area, while the Manor Road access will serve trucks delivering and removing the crushed asphalt/concrete material. In this way, all truck traffic will preferentially be directed onto Manor Road. Both accesses will be "stop"-controlled for departing vehicles.

I am writing to obtain information on the public ambulance service facilities and capabilities that may be pertinent to the project, to be included in the Draft EIS. Specifically, I am requesting the following:

- The location of the ambulance substation(s) which would serve the site;
- The number of emergency medical technicians (EMTs) assigned to each facility;
- Indicate any specialized emergency medical capabilities;
- Indicate whether the EMTs are volunteers or full-time.
- Whether the project would or may significantly add to the existing potential need for Corps services; and
- Whether the project would or may significantly increase the need for additional Corps equipment, facilities, training or personnel.

All information provided in your responses will be included in the Draft EIS. If you have any additional information or comments which would be pertinent, please include them. Finally, if you have any questions or require additional information to provide your responses, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE AND VOORHIS, LLC

Phil Malicki, CEP, AICP, LEED® AP
Senior Environmental Planner

LONG ISLAND OFFICE
572 WALT WHITMAN ROAD, MELVILLE, NY 11747-2188
PHONE: (631) 427-5665 • FAX: (631) 427-5620

HUDSON VALLEY OFFICE
156 Route 59, Suite C6, SUFFERN, NY 10901
PHONE: (845) 368-1472 • FAX: (845) 368-1572

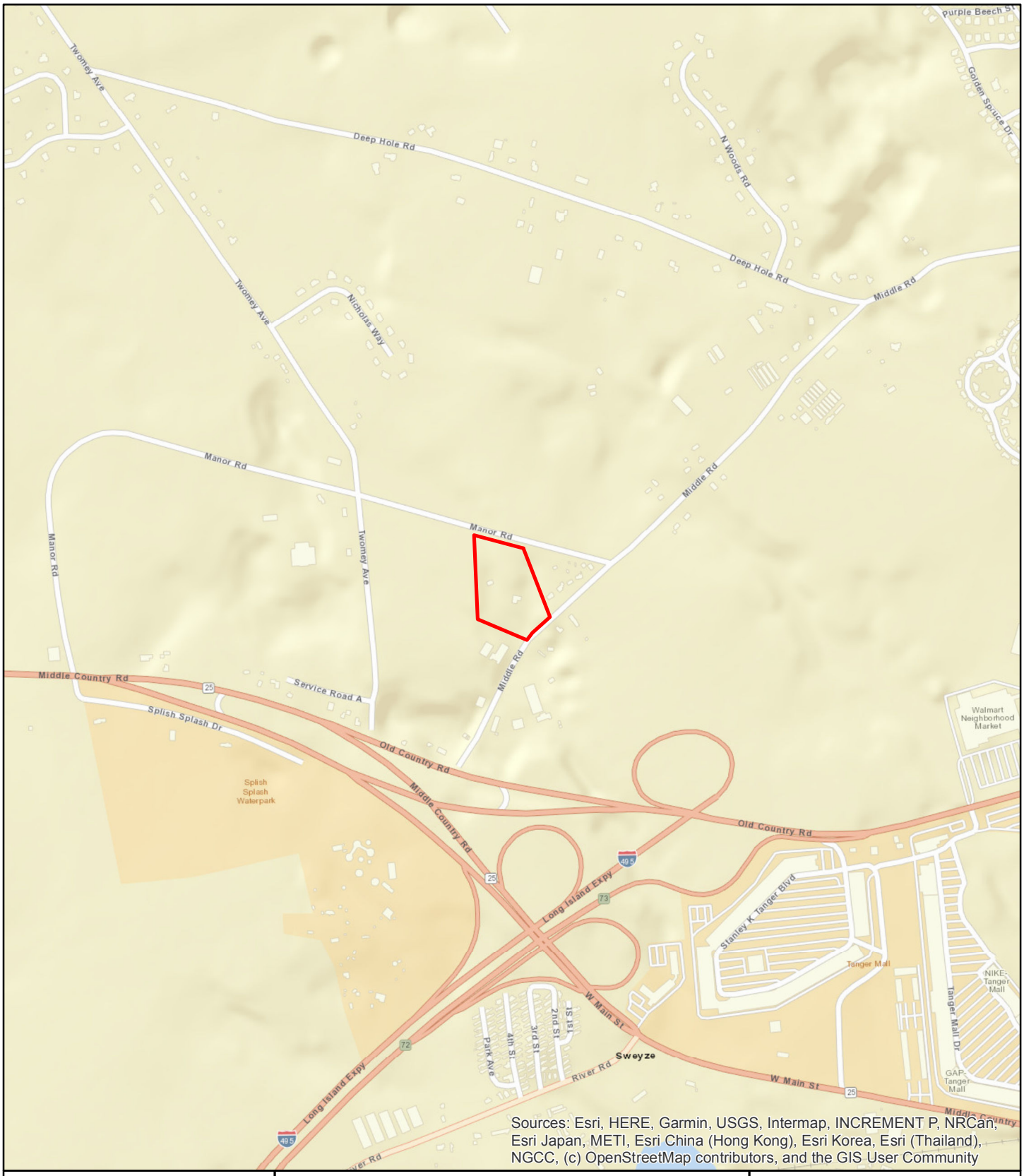

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FIGURE 1-1b
LOCATION MAP, LOCAL

Source: ESRI Web Mapping Service

Scale: 1 inch = 1,000 feet

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Breezy Hill Group, LLC
Calverton

Draft EIS

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www.nelsonpopevoorhis.com

September 17, 2019

Riverhead Water District (RWD)
1035 Pulaski Street
Riverhead, NY 11901
attn.: Mark Conklin, Superintendent

Re: Breezy Hill Group, LLC
Asphalt & Concrete Crushing Facility
Draft EIS
NPV #17060

Dear Mr. Conklin:

Nelson, Pope & Voorhis, LLC is preparing a Draft Environmental Impact Statement (Draft EIS) for the above-referenced proposal for the 6.68-acre project site (at 1792 Middle Road in Calverton; see attached figure). The site is presently zoned for industrial use. The proposed project would utilize the site for an asphalt and a concrete crushing and screening business. An existing dwelling and barn/garage would be reused for office and storage space for the facility, respectively.

Though the subject site is within the RWD, there is no public water supply network in the area. As a result, the project site obtains its potable water from an on-site private well. Sanitary wastewater from the project will continue to be retained and recharged on-site in the existing septic system serving the residence. Assuming the wastewater flow design rates of the SCDHS, it is anticipated that the project will consume at total of about 328 gallons of water daily.

I am writing to obtain information on water supply facilities that may be pertinent to the project, to be included in the Draft EIS. Specifically, I am requesting the following:

- Confirmation that the site is not presently served by the RWD;
- The locations of the wells nearest the subject site, and the aquifer from which the wells pump;
- A copy of the district's 2018 Expanded Data Package; and
- Whether the project would or may significantly increase the need for RWD to expand its water supply network in the area of the project site.

All information provided in your responses will be included in the Draft EIS. If you have any additional information or comments which would be pertinent, please include them. Finally, if you have any questions or require additional information to provide your responses, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE AND VOORHIS, LLC

Phil Malicki, CEP, AICP, LEED® AP
Senior Environmental Planner

LONG ISLAND OFFICE
572 WALT WHITMAN ROAD, MELVILLE, NY 11747-2188
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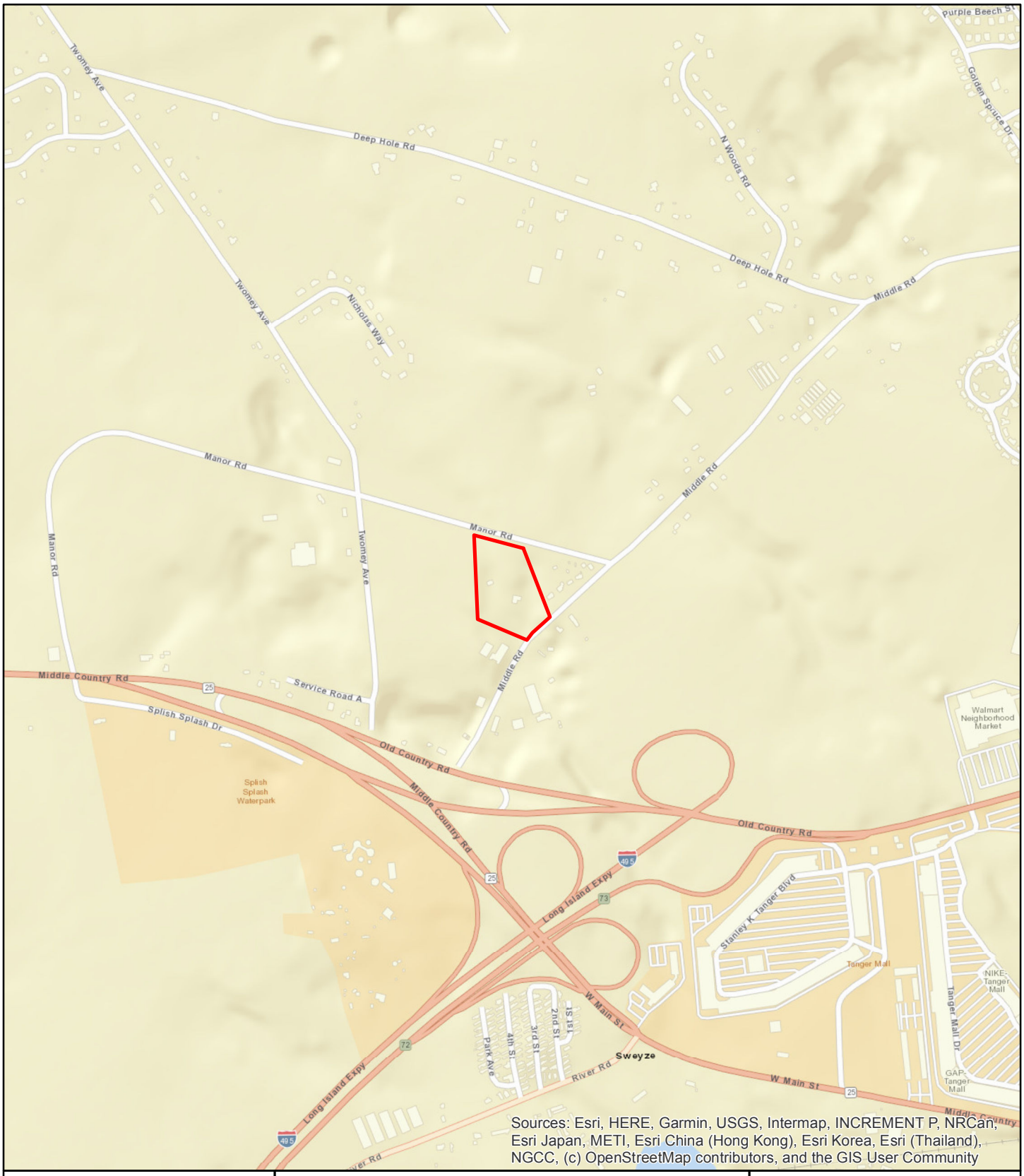

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FIGURE 1-1b
LOCATION MAP, LOCAL

Source: ESRI Web Mapping Service

Scale: 1 inch = 1,000 feet

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Breezy Hill Group, LLC
Calverton

Draft EIS

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www.nelsonpopevoorhis.com

September 17, 2019

PSEG Long Island (PSEG LI)
117 Doctors Path
Riverhead, NY 11901
attn.: Rich Inserra or Chris Hawks

Re: Breezy Hill Group, LLC
Asphalt & Concrete Crushing Facility
Draft EIS
NPV #17060

Gentlemen:

Nelson, Pope & Voorhis, LLC is preparing a Draft Environmental Impact Statement (Draft EIS) for the above-referenced proposal for the 6.68-acre project site (at 1792 Middle Road in Calverton; see attached figure). The site is presently zoned for industrial use. The proposed project would utilize the site for an asphalt and a concrete crushing and screening business. An existing dwelling and barn/garage would be reused for office and storage space for the facility, respectively.

The project is expected to use electricity; however, an estimate as to the amount of such usage is not presently available.

I am writing to obtain information on PSEG LI electric facilities, services, and capabilities that may be pertinent to the project, to be included in the Draft EIS. Specifically, I am requesting the following:

- The location and capacity of the electric lines serving the site or area;
- Written confirmation that PSEG LI can and would serve the project with electricity;
- Whether the project would significantly add to the existing level of electrical service demand; and
- Whether the project would significantly increase the need for PSEG LI to expand its electrical generating capacity and/or distribution network.

All information provided in your responses will be included in the Draft EIS. If you have any additional information or comments which would be pertinent, please include them. Finally, if you have any questions or require additional information to provide your responses, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE AND VOORHIS, LLC

Phil Malicki, CEP, AICP, LEED® AP
Senior Environmental Planner

LONG ISLAND OFFICE
572 WALT WHITMAN ROAD, MELVILLE, NY 11747-2188
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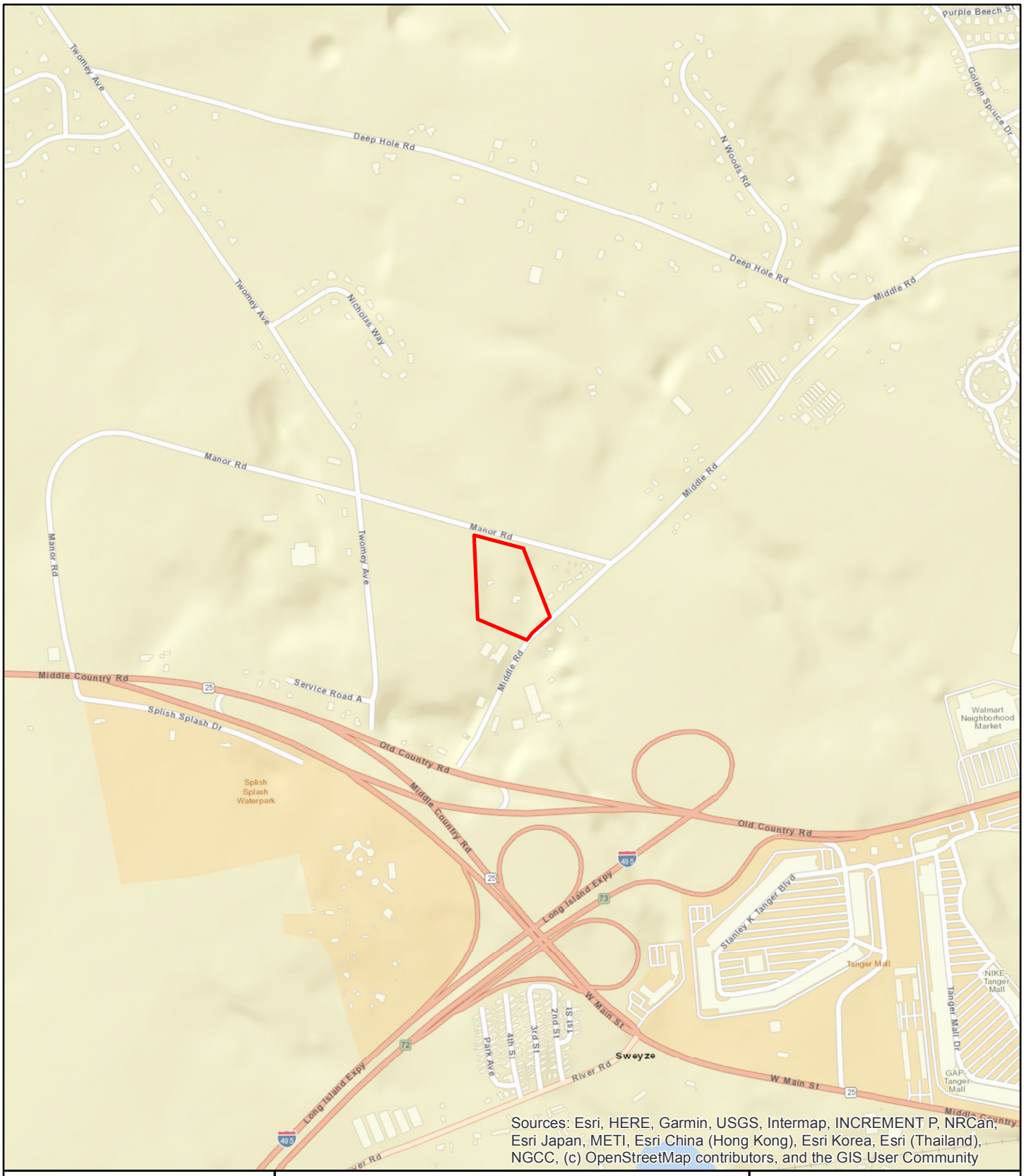

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FIGURE 1-1b
LOCATION MAP, LOCAL

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Breezy Hill Group, LLC
Calverton

Draft EIS

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ENVIRONMENTAL • PLANNING • CONSULTING
www.nelsonpopevoorhis.com

September 17, 2019

National Grid
25 Hub Drive
Melville, NY 11747
attn: Valarie Hunter Account Representative

Re: Breezy Hill Group, LLC
Asphalt & Concrete Crushing Facility
Draft EIS
NPV #17060

Dear Ms. Hunter:

Nelson, Pope & Voorhis, LLC is preparing a Draft Environmental Impact Statement (Draft EIS) for the above-referenced proposal for the 6.68-acre project site (at 1792 Middle Road in Calverton; see attached figure). The site is presently zoned for industrial use. The proposed project would utilize the site for an asphalt and a concrete crushing and screening business. An existing dwelling and barn/garage would be reused for office and storage space for the facility, respectively.

The residence currently is heated using propane fuel from tanks; the project may use natural gas as a heating source, but a final decision on this issue is premature. As a result, an estimate as to the amount of such usage is not presently available.

I am writing to obtain information on natural gas facilities, services, and capabilities that may be pertinent to the project, to be included in the Draft EIS. Specifically, I am requesting the following:

- Confirmation on whether the site is presently served by natural gas;
- A map or text description of the location(s) and sizes of the nearest natural gas lines in the vicinity, if any;
- A letter confirming that natural gas service can and would be provided to the project or that such service is not practicable; and
- Whether the project would significantly increase the need for National Grid to expand its natural gas supply or distribution network.

All information provided in your responses will be included in the Draft EIS. If you have any additional information or comments which would be pertinent, please include them. Finally, if you have any questions or require additional information to provide your responses, please do not hesitate to contact me.

Very truly yours,
NELSON, POPE AND VOORHIS, LLC

Phil Malicki, CEP, AICP, LEED® AP
Senior Environmental Planner

CORPORATE OFFICE
572 WALT WHITMAN ROAD, MELVILLE, NY 11747-2188
PHONE: (631) 427-5665 • FAX: (631) 427-5620

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156 Route 59, Suite C6, SUFFERN, NY 10901
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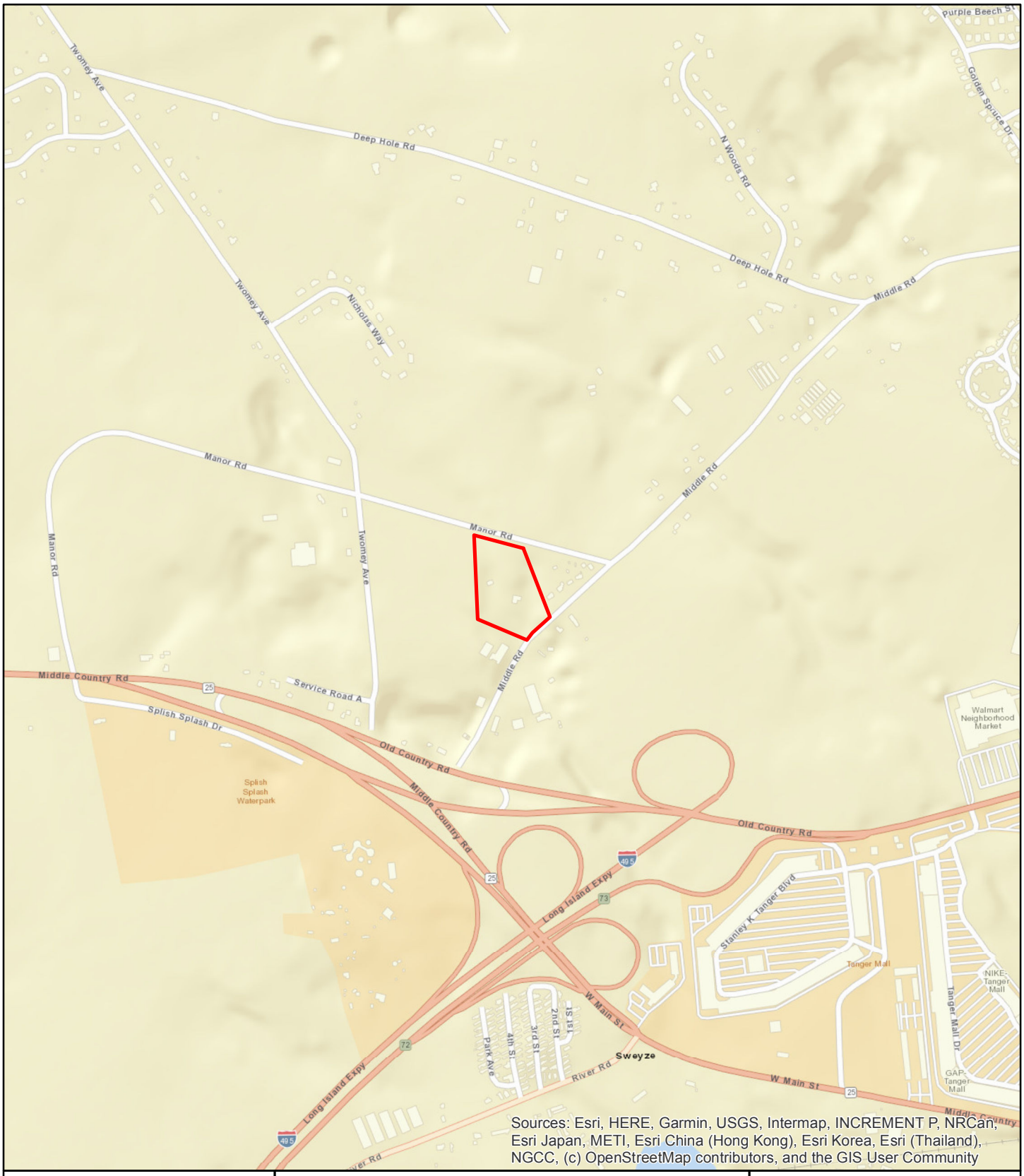

NELSON, POPE & VOORHIS, LLC
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FIGURE 1-1b
LOCATION MAP, LOCAL

Source: ESRI Web Mapping Service

Scale: 1 inch = 1,000 feet

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Breezy Hill Group, LLC
Calverton

Draft EIS

APPENDIX J
TRAFFIC IMPACT STUDY

N+P Engineering, Architecture & Land Surveying, PLLC
April 2020

TRAFFIC IMPACT STUDY

BREEZY HILL
1792 MIDDLE ROAD AT CALVERTON

TOWN OF RIVERHEAD

April 2020

N & P JOB NO.17060

NELSON & POPE
ENGINEERS & SURVEYORS

572 WALT WHITMAN ROAD, MELVILLE, NY 11747-2188 . (631)427-5665 . FAX(631)427-5620 . www.nelsonpope.com

Study Purpose and Methodology

Nelson & Pope conducted a Traffic Impact Study to identify traffic impacts that may be associated with the proposed project to be located at 1792 Middle Road, Calverton, New York. The site is a 6.68-acre industrially zoned parcel which currently contains a residence and residential accessory structure and is proposed to be converted to an asphalt and a concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and one and a half-story frame barn/garage to office and storage space.

Access to the site will be provided via one full movement truck driveway on Manor Road and one full movement driveway for employees on Middle Road.

This study was accomplished by conducting the following tasks:

- Performed a field inventory of existing roadway features including geometry, lane widths, traffic control, pavement markings, parking restrictions, traffic signal timing and phasing.

- Installed Automatic Traffic Recorders (ATR) on Manor Road and Middle Road in the vicinity of the site for a period of seven (7) days in to obtain vehicle classification data (auto and trucks) and hourly and daily volumes to supplement the turning movement counts.

- Conducted turning movement counts at the following intersections during a typical weekday AM (6-9am), weekday PM (4-7pm) and Saturday (11am-2pm) peak hours.

    - Middle Country Road and Manor Road
    - Manor Road at Twomey Avenue
    - Manor Road at Middle Road

- Tabulated traffic count data and identified peak hour factors.

- The Town of Riverhead Planning Department was contacted to obtain information on other planned projects that may impact traffic flow in the study area. The traffic generated by the other planned projects is referred to the Other Planned Projects Traffic Volumes.

- The Existing volumes were adjusted to future 2022 No Build Volumes using annual growth factors derived from information developed for the New York Metropolitan Transportation Council's Best Practices Model (BMP) and from the NYSDOT LITP2000 Study. These traffic volumes are referred to as Ambient Traffic Volumes. Since there are no significant other planned projects in the study area, the Ambient Traffic Volumes also represent the 2022 No Build Volumes.

- Estimates of traffic that would be generated by the proposed developments were prepared utilizing anticipated operation data obtained from the applicant. The site-generated traffic volumes were assigned to the adjacent street system based upon the anticipated directional trip distribution forecasted by Nelson & Pope.

- Capacity analyses were performed at the study intersections identified above for Existing, No Build, and Build Conditions for weekday AM, PM and Saturday midday peak hours. The analyses were performed using Synchro Version 10 software to provide level of service results at the intersections.

- The results of the analyses for the 2022 No Build Conditions and 2022 Build Conditions were compared to identify any significant impact associated with the proposed project.

- Prepared a Traffic Study Report of the findings for submission to the Town of Riverhead.

Roadway Conditions

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

- *Middle Country Road (NYS Route 25)* is an east/west urban principal arterial under the jurisdiction of the New York State Department of Transportation (NYSDOT). NYS Route 25 in the vicinity of the site provides one lane per travel direction with left turn lanes at the intersection of Middle Country Road and Manor Road. The section of Middle Country Road in the vicinity of the site has an average annual daily traffic (AADT) volume of approximately 15,616 vehicles per day (source: ATR data collected by the New York State Department of Transportation in May 2009). The horizontal alignment is slightly curving, and the vertical alignment is rolling in the vicinity of the site. The posted speed limit is 50 miles per hour. The land uses along this roadway in the vicinity of the site are predominantly farmlands.

- *Manor Road* is a local Town Road that extends from Middle Country Road in a north/south direction to Middle Road in an east/west direction. Manor Road provides one lane per travel direction. Manor Road in the vicinity of the site has an average annual daily traffic (AADT) volume of approximately 2,565 vehicles per day (source: ATR data collected by Nelson & Pope in February 2020). The horizontal alignment is curving, and the vertical alignment is rolling in the vicinity of the site. The posted speed limit is 35 miles per hour. The land uses along this roadway in the vicinity of the site are predominantly farmlands.

- *Middle Road* is a local Town Road that extends from Doctors Path in the east in an east/west direction to a dead-end at its westerly terminus in a north/south. Middle Road provides one lane per travel direction. Middle Road in the vicinity of the site has an average annual daily traffic (AADT) volume of approximately 437 vehicles per day (source: ATR data collected by Nelson & Pope in February 2020). The horizontal alignment is curving, and the vertical alignment is rolling in the vicinity of the site. The posted speed limit is 35 miles per hour. The land uses along this roadway in the vicinity of the site are predominantly farmlands.

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

Table 1: Intersection Geometry

Intersection	Approach	Lane Designation*	Traffic Control
Middle Country Road (NYS Route 25) at Manor Road	EB	L-TR	Traffic Signal
	WB	L-TR	
	NB	LTR	
	SB	LTR	
Manor Road at Twomey Avenue	EB	LTR	Stop Control on Twomey Avenue
	WB	LTR	
	NB	LTR	
	SB	LTR	
Manor Road at Middle Road	EB	LR	Stop Control on Manor Road
	NB	LT	
	SB	TR	

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

Existing Traffic Volumes Data

Weekday turning movement counts were collected at the study intersections on Thursday January 30, 2020 during the weekday AM (6:00-9:00 AM) and weekday PM (4:00-7:00 PM) peak periods. The weekend turning movement counts were collected on February 1, 2020 during the Saturday midday peak period (11:00 AM – 2:00 PM). The volume data was tabulated to identify the peak hours at each of the study intersections. In order to perform a conservative analysis, the peak hour volumes at each intersection were utilized in this study. The existing intersection peak hour volumes are contained in Appendix A.

No Build Conditions

The No Build Condition represents traffic conditions expected at study intersections in the future year 2022 without the construction of the proposed project. The No Build Condition traffic volumes are estimated based on two factors as follows:

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

Growth Rate

Based on the Average Annual Growth Rate for Vehicle-Miles Travel (VMT) developed by New York Metropolitan Transportation Council (NYMTC), the average annual growth rate for Suffolk County ranges from 0.37% to 0.71% depending on the functional classification of the roadway. Based on the functional classifications of roadways within the study area, the growth rate will either be 0.47% or 0.71%.

Other Planned Projects

“Other Planned Projects” is a term that refers to developments located near the project site that are currently under construction or in the planning stages. Traffic generated by these projects may

significantly influence the operations of the study intersections and would not be represented in the field data collected. The Town of Riverhead was contacted to obtain information on any planned projects in the area. However, no information was provided to us by the Town. In order to account for traffic from other planned projects an annual growth factor of 1.3% instead of 0.71% per year was utilized. The existing traffic volumes were increased by a factor 1.3% a year for a period of two (2) years to project volumes to the year 2022. The No Build traffic volumes for the weekday AM, weekday PM and Saturday midday peak hours are included in the Appendix A.

Build Condition

Proposed project

The proposed project is to convert a 6.68-acre industrially zoned parcel which currently contains a residence and residential accessory structure to an asphalt and a concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and one and a half-story frame barn/garage to office and storage space.

Site Access

Access to the site will be provided via one full movement truck driveway on Manor Road and one full movement driveway for employees on Middle Road. The proposed Truck Driveway om Manor Road will be 40 feet wide with 35 feet radii. The Truck driveway is designed for the easy access of trucks.

Trip Generation

In order to identify the impacts the proposed project will have on the adjacent street system, it is necessary to estimate the magnitude of traffic volume generated during the peak hours and to estimate the directional distribution of the site traffic when entering and exiting the subject property. The trip generation estimates for the proposed project were prepared utilizing anticipated site vehicle usage data provided by the applicant. The following site information was provided to us by the applicant:

- The site operating hours will be Monday – Friday from 6:30am to 5:30pm, Saturday from 7am-7pm and Sunday from 9am-12pm.
- Between 10-15 trucks are expected to access the site per day.
- Between 3-4 employees per day.

Based on this information, we conservatively assume 5 trucks will enter and exit the site during each peak hour (weekday AM, Weekday PM and Saturday midday peak hours). We assume all the employees enter the site during the weekday AM peak hour and exit during weekday PM peak hour.

The following table summarizes the trip generation estimates for the proposed project.

Table 2: Trip Generation (Proposed Project)

Time Period	Distribution	Trucks	Employees (Cars)	Total
Weekday AM Peak Hour	Enter	5	4	9
	Exit	5	1	6
	Total	**10**	**5**	**15**
Weekday PM Peak Hour	Enter	5	1	6
	Exit	5	4	9
	Total	**10**	**5**	**15**
Saturday Midday Peak Hour	Enter	5	4	9
	Exit	5	4	9
	Total	**10**	**8**	**18**

As can be seen from Table 2 above, the proposed project is projected to generate15 trips (9 entering and 6 exiting) during the weekday AM peak hour, 15 trips (6 entering and 9 exiting) during the weekday PM peak hour and 18 trips (9 entering and 9 exiting) during the Saturday midday peak hour.

Trip Distribution and Assignment

The volume of site traffic expected to be generated by the proposed project during peak hours was distributed and assigned to each intersection movement based on existing roadway volumes and travel patterns. The nature of the proposed land use and its associated travel patterns were considered as well. The site generated traffic volumes were then added to the weekday AM, PM and Saturday midday No Build Condition volumes resulting in the Build Condition volumes. The Site Generated and Build volumes are in Appendix A of the report.

Traffic Analyses

Levels of service descriptions

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

In order to identify the operational characteristics of the study intersections, LOS and capacity analyses and arterial network analyses for the study intersections were performed using *SYNCHRO Version 10* Software. *SYNCHRO*, in conjunction with *SimTraffic*, is a software package that allows for an interactive analysis of a single intersection or a network of intersections and can also be

used for modeling and optimizing traffic signal timings. The *SimTraffic* component provides simulations of operations with animation features. *SYNCHRO* implements the Intersection Capacity Utilization (ICU) 2003 method for determining intersection capacity. This method compares the current volume to the intersections ultimate capacity. *SYNCHRO* also implements the methods of the 2010 Highway Capacity Manual (HCM) for Urban Streets, Signalized intersections, and unsignalized intersections for determining intersection capacity analyses. The *HCM* contains procedures and methodologies for estimating capacity and determining LOS for many transportation facilities and modes including signalized and unsignalized intersections.

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

The capacity of a signalized intersection is evaluated in terms of the ratio of demand flow rate to capacity (V/C ratio). The capacity for each approach represents the maximum rate of flow (for the subject approach) which may pass through the intersection under prevailing traffic, roadway and signal conditions. The LOS of a signalized intersection is evaluated on the basis of average control-delay measured in seconds per vehicle (sec/veh). The control-delay is calculated using an equation that combines the stopped-delay with the vehicle acceleration/deceleration delay that is caused by the signalized intersection. At the signalized intersections, factors that affect the various approach capacities include width of approach, number of lanes, signal "green time", turning percentages, truck volumes, etc. However, delay cannot be related to capacity in a simple one-to-one fashion. For example, it is possible to have delays in the LOS "F" range without exceeding roadway capacity. Substantial delays can exist without exceeding capacity if one or more of the following conditions exist: long signal cycle length; a particular traffic movement experience a long red time; or progressive movements for a particular lane is poor.

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

Intersection capacity and level-of-service (LOS) analyses were conducted at the study intersections for the Existing, No Build and Build conditions during the weekday AM, Weekday PM and Saturday midday peak hours using *SYNCHRO Version 10* Software. *SYNCHRO*, as described above. The detailed LOS worksheets are contained in Appendix C.

The following table is a summary of the LOS results.

Table 3: Level of Service at Signalized Intersections
AM Peak Hour

Signalized Intersection	Approach	Movement	2020 Existing Conditions		2022 No Build Condition		2022 Build Condition	
			LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)
Middle Country Road (NYS 25) Manor Road	EB	L	A	5.4	A	5.5	A	5.9
		TR	B	13.6	B	13.9	B	14.6
	WB	L	A	5.5	A	5.5	A	5.9
		TR	B	14.8	B	14.9	B	15.9
	NB	LTR	C	24.5	C	25.5	C	25.2
	SB	LTR	C	27.0	C	27.8	C	29.1
	Overall		**B**	**15.2**	**B**	**15.5**	**B**	**16.4**

Table 4: Level of Service Summary at Unsignalized Intersections
AM Peak Hour

Unsignalized Intersection	Approach	Movement	2020 Existing Conditions		2022 No Build Condition		2022 Build Condition	
			LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)
Manor Road at Twomey Avenue	EB	LTR	A	2.7	A	2.7	A	2.5
	WB	LTR	A	0.4	A	0.4	A	0.5
	NB	LTR	B	10.0	B	10.1	B	10.5
	SB	LTR	A	9.2	A	9.2	A	9.3
Manor Road at Middle Road	EB	LR	A	9.3	A	9.3	A	9.3
	WB	LT	A	7.6	A	7.6	A	7.0
Manor Road at Truck Driveway	WB	LT					A	0.0
	NB	LR					B	10.5
Middle Road at Site Driveway	EB	LR					A	8.7
	NB	LT					A	0.0

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

Table 5: Level of Service at Signalized Intersections
PM Peak Hour

Signalized Intersection	Approach	Movement	2020 Existing Conditions LOS	2020 Existing Conditions Delay (sec.)	2022 No Build Condition LOS	2022 No Build Condition Delay (sec.)	2022 Build Condition LOS	2022 Build Condition Delay (sec.)
Middle Country Road (NYS 25) Manor Road	EB	L	A	4.4	A	4.5	A	5.1
		TR	A	6.0	A	5.9	A	6.5
	WB	L	A	0.0	A	0.0	A	0.0
		TR	B	18.9	B	19.2	C	20.7
	NB	LTR	A	0.4	A	0.4	A	0.5
	SB	LTR	C	32.9	C	34.6	D	37.1
	Overall		**B**	**16.1**	**B**	**16.5**	**B**	**17.8**

Table 6: Level of Service Summary at Unsignalized Intersections
PM Peak Hour

Unsignalized Intersection	Approach	Movement	2020 Existing Conditions LOS	2020 Existing Conditions Delay (sec.)	2022 No Build Condition LOS	2022 No Build Condition Delay (sec.)	2022 Build Condition LOS	2022 Build Condition Delay (sec.)
Manor Road at Twomey Avenue	EB	LTR	A	3.4	A	3.4	A	3.2
	WB	LTR	A	0.1	A	0.1	A	0.2
	NB	LTR	B	11.3	B	11.4	B	12.0
	SB	LTR	A	9.7	A	9.8	B	10.2
Manor Road at Middle Road	EB	LR	A	9.6	A	9.6	A	9.7
	WB	LT	A	4.8	A	4.6	A	5.1
Manor Road at Truck Driveway	WB	LT					A	0.0
	NB	LR					B	11.2
Middle Road at Site Driveway	EB	LR					A	8.7
	NB	LT					A	0.0

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

Table 7: Level of Service at Signalized Intersections
Saturday Peak Hour

Signalized Intersection	Approach	Movement	2020 Existing Conditions LOS	2020 Existing Conditions Delay (sec.)	2022 No Build Condition LOS	2022 No Build Condition Delay (sec.)	2022 Build Condition LOS	2022 Build Condition Delay (sec.)
Middle Country Road (NYS 25) Manor Road	EB	L	A	4.1	A	4.1	A	4.5
		TR	A	9.7	A	9.7	B	10.1
	WB	L	A	4.0	A	4.0	A	4.5
		TR	B	15.3	B	15.2	B	16.3
	NB	LTR	A	0.0	A	0.0	A	0.0
	SB	LTR	C	22.7	C	24.1	C	26.7
	Overall		**B**	**13.3**	**B**	**13.4**	**B**	**14.4**

Table 8: Level of Service Summary at Unsignalized Intersections
Saturday Peak Hour

Unsignalized Intersection	Approach	Movement	2020 Existing Conditions LOS	2020 Existing Conditions Delay (sec.)	2022 No Build Condition LOS	2022 No Build Condition Delay (sec.)	2022 Build Condition LOS	2022 Build Condition Delay (sec.)
Manor Road at Twomey Avenue	EB	LTR	A	3.3	A	3.3	A	3.1
	WB	LTR	A	0.2	A	0.3	A	0.3
	NB	LTR	B	11.0	B	11.2	B	11.7
	SB	LTR	A	9.7	A	9.7	A	9.9
Manor Road at Middle Road	EB	LR	A	9.5	A	9.5	A	9.7
	WB	LT	A	6.1	A	6.1	A	6.0
Manor Road at Truck Driveway	WB	LT					A	0.0
	NB	LR					B	10.9
Middle Road at Site Driveway	EB	LR					A	8.6
	NB	LT					A	0.0

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

Middle Country Road (NYS Route 25) at Manor Road

Currently the signalized intersection of Middle Country (NYS Route 25) and Middle Road operate at overall LOS B during the weekday AM, PM and Saturday midday peak hours. During the No Build Condition, this intersection will operate at overall LOS B during the weekday AM, weekday PM and Saturday midday peak hours respectively. After the completion of the project, the intersection will continue to operate at No Build LOS during the analyzed peak periods. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Manor Road at Twomey Avenue

Currently, all the traffic movements at the intersection of Manor Road and Twomey Avenue operates at LOS B or better during the weekday AM weekday PM and Saturday midday peak hours. During the No Build condition, the traffic movements at the intersection will operate at LOS B or better during the weekday AM, weekday PM and Saturday midday peak hours. After the completion of the project, all the approach movements at the intersection will continue to operate at No Build levels of service. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Manor Road at Middle Road

Currently, all the traffic movements at the intersection of Manor Road and Middle Road operates at LOS A during the weekday AM weekday PM and Saturday midday peak hours. During the No Build condition, the traffic movements at the intersection will operate at LOS A during the weekday AM, weekday PM and Saturday midday peak hours. After the completion of the project, all the approach movements at the intersection will continue to operate at No Build levels of service. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Manor Road at Truck Site Driveway

After the completion of the project, the westbound approach at the intersection of Manor Road and the truck driveway will operate at LOS A and the northbound approach will operate at LOS B during the weekday AM, PM and Saturday midday peak hours. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Middle Road at Site Driveway

After the completion of the project, the eastbound approach at the intersection of Middle Road and the Site driveway will operate at LOS A during the weekday AM, PM and Saturday midday peak hours. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Conclusion

Nelson & Pope has investigated the potential traffic impacts associated with the proposed project to be located at 1792 Middle Road, Calverton, New York. The site is a 6.68-acre industrially zoned parcel which currently contains a residence and residential accessory structure and is proposed to be converted to an asphalt and a concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and one and a half-story frame barn/garage to office and storage space. The following is a summary of this investigation and the findings thereof:

1. The following intersections were studied:
    - Middle Country Road and Manor Road
    - Manor Road at Twomey Avenue
    - Manor Road at Middle Road

2. The proposed project is projected to generate15 trips (9 entering and 6 exiting) during the weekday AM peak hour, 15 trips (6 entering and 9 exiting) during the weekday PM peak hour and 18 trips (9 entering and 9 exiting) during the Saturday midday peak hour.

3. As depicted on the site plan, access to the proposed project site will be provided via one full movement truck driveway on Manor Road and one full movement driveway for employees on Middle Road. The proposed Truck Driveway om Manor Road will be 40 feet wide with 35 feet radii. The Truck driveway is designed for the easy access of trucks.

4. Capacity analyses were conducted at all the study intersections for the 2020 Existing, 2022 No Build and 2022 Build conditions during the weekday AM, weekday PM and Saturday midday peak hours. The results of the analyses are described below:
    - Currently the signalized intersection of Middle Country (NYS Route 25) and Middle Road operate at overall LOS B during the weekday AM, PM and Saturday midday peak hours. During the No Build Condition, this intersection will operate at overall LOS B during the weekday AM, weekday PM and Saturday midday peak hours respectively. After the completion of the project, the intersection will continue to operate at No Build LOS during the analyzed peak periods. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

    - Currently, all the traffic movements at the intersection of Manor Road and Twomey Avenue operates at LOS B or better during the weekday AM weekday PM and Saturday midday peak hours. During the No Build condition, the traffic movements at the intersection will operate at LOS B or better during the weekday AM, weekday PM and Saturday midday peak hours. After the completion of the project, all the approach movements at the intersection will continue to operate at No Build levels of service. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

    - Currently, all the traffic movements at the intersection of Manor Road and Middle Road operates at LOS A during the weekday AM weekday PM and Saturday midday peak hours. During the No Build condition, the traffic movements at the intersection will operate at LOS A during the weekday AM, weekday PM and Saturday midday peak hours. After the completion of the project, all the approach movements at the intersection

will continue to operate at No Build levels of service. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

- After the completion of the project, the westbound approach at the intersection of Manor Road and the truck driveway will operate at LOS A and the northbound approach will operate at LOS B during the weekday AM, PM and Saturday midday peak hours. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

- After the completion of the project, the eastbound approach at the intersection of Middle Road and the Site driveway will operate at LOS A during the weekday AM, PM and Saturday midday peak hours. Therefore, no significant impacts are created, and no mitigation measures are proposed at this intersection.

Based on the results of the Traffic Study as detailed in the body of this report, it is the professional opinion of Nelson & Pope that, the construction of the proposed project will not result in an adverse traffic impact at the study intersections.

APPENDIX A – Traffic Data

NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 1-MIDDLE_COUNTRY_RD_AT_MANOR_RD-THURS_745528_01-30-2020
Site Code :
Start Date : 1/30/2020
Page No : 1

Groups Printed- Lights - Trucks

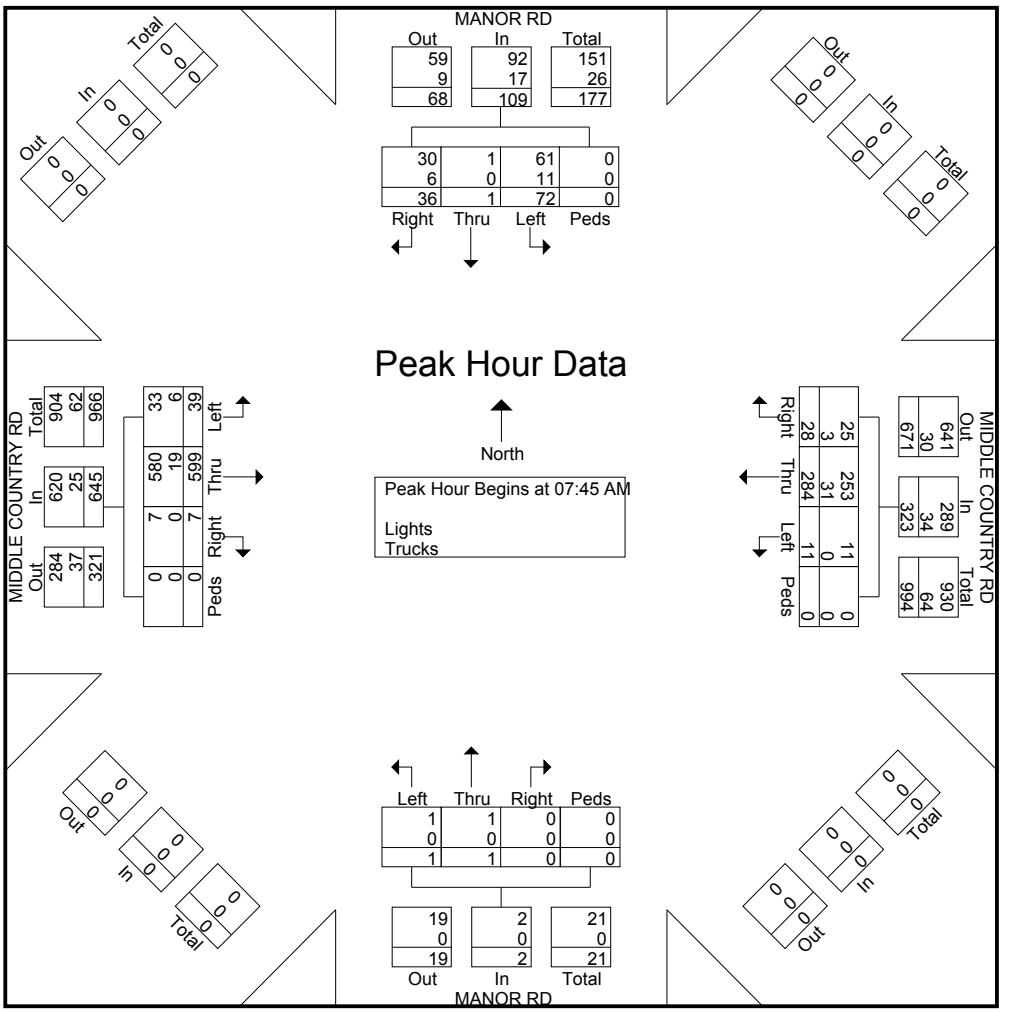
	MANOR RD Southbound					MIDDLE COUNTRY RD Westbound					MANOR RD Northbound					MIDDLE COUNTRY RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	9	0	4	0	13	0	35	2	0	37	0	0	0	0	0	0	51	0	0	51	101
06:15 AM	10	0	6	0	16	1	34	7	0	42	0	0	0	0	0	6	59	0	0	65	123
06:30 AM	7	0	8	0	15	0	51	11	0	62	0	0	0	0	0	10	73	0	0	83	160
06:45 AM	12	0	8	0	20	0	55	10	0	65	0	0	0	0	0	6	138	0	0	144	229
Total	38	0	26	0	64	1	175	30	0	206	0	0	0	0	0	22	321	0	0	343	613
07:00 AM	10	0	3	0	13	0	59	10	0	69	0	0	0	0	0	0	102	0	0	102	184
07:15 AM	12	0	2	0	14	0	64	8	0	72	0	0	0	0	0	7	111	0	0	118	204
07:30 AM	10	0	11	0	21	0	85	7	0	92	0	0	0	0	0	8	120	0	0	128	241
07:45 AM	13	0	11	0	24	5	77	8	0	90	0	0	0	0	0	12	158	1	0	171	285
Total	45	0	27	0	72	5	285	33	0	323	0	0	0	0	0	27	491	1	0	519	914
08:00 AM	14	1	11	0	26	5	82	6	0	93	0	1	0	0	1	14	149	5	0	168	288
08:15 AM	22	0	2	0	24	1	71	6	0	78	0	0	0	0	0	7	142	1	0	150	252
08:30 AM	23	0	12	0	35	0	54	8	0	62	1	0	0	0	1	6	150	0	0	156	254
08:45 AM	22	1	5	0	28	0	60	10	0	70	0	0	0	0	0	10	166	1	0	177	275
Total	81	2	30	0	113	6	267	30	0	303	1	1	0	0	2	37	607	7	0	651	1069
04:00 PM	27	0	10	0	37	0	139	18	0	157	3	0	6	0	9	9	127	0	0	136	339
04:15 PM	23	0	23	0	46	0	150	18	0	168	0	0	5	0	5	14	108	0	0	122	341
04:30 PM	27	0	13	0	40	0	145	19	0	164	0	0	0	0	0	9	104	0	0	113	317
04:45 PM	18	0	13	0	31	0	151	11	0	162	0	0	0	0	0	10	98	0	0	108	301
Total	95	0	59	0	154	0	585	66	0	651	3	0	11	0	14	42	437	0	0	479	1298
05:00 PM	24	0	17	0	41	0	183	14	0	197	2	0	1	0	3	16	103	0	0	119	360
05:15 PM	22	0	9	0	31	0	154	16	0	170	1	0	2	0	3	7	93	0	0	100	304
05:30 PM	17	0	15	0	32	2	148	15	0	165	0	0	0	0	0	6	78	0	0	84	281
05:45 PM	15	0	8	0	23	1	134	20	0	155	1	0	4	0	5	7	98	1	0	106	289
Total	78	0	49	0	127	3	619	65	0	687	4	0	7	0	11	36	372	1	0	409	1234
06:00 PM	12	0	16	0	28	0	105	10	0	115	0	0	0	0	0	11	75	0	0	86	229
06:15 PM	14	0	13	0	27	0	109	16	0	125	0	0	0	0	0	3	73	0	0	76	228
06:30 PM	12	0	11	0	23	0	80	9	0	89	0	0	0	0	0	4	51	0	0	55	167
06:45 PM	6	0	3	0	9	0	118	8	0	126	0	0	0	0	0	6	63	0	0	69	204
Total	44	0	43	0	87	0	412	43	0	455	0	0	0	0	0	24	262	0	0	286	828
Grand Total	381	2	234	0	617	15	2343	267	0	2625	8	1	18	0	27	188	2490	9	0	2687	5956
Apprch %	61.8	0.3	37.9	0		0.6	89.3	10.2	0		29.6	3.7	66.7	0		7	92.7	0.3	0		
Total %	6.4	0	3.9	0	10.4	0.3	39.3	4.5	0	44.1	0.1	0	0.3	0	0.5	3.2	41.8	0.2	0	45.1	
Lights	358	2	224	0	584	15	2259										2429				
% Lights	94	100	95.7	0	94.7	100	96.4	93.3	0	96.1	100	100	100	0	100	93.1	97.6	100	0	97.2	96.5
Trucks	23	0	10	0	33	0	84	18	0	102	0	0	0	0	0	13	61	0	0	74	209
% Trucks	6	0	4.3	0	5.3	0	3.6	6.7	0	3.9	0	0	0	0	0	6.9	2.4	0	0	2.8	3.5

NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 1-MIDDLE_COUNTRY_RD_AT_MANOR_RD-THURS_745528_01-30-2020
Site Code :
Start Date : 1/30/2020
Page No : 2

	MANOR RD Southbound					MIDDLE COUNTRY RD Westbound					MANOR RD Northbound					MIDDLE COUNTRY RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	13	0	11	0	24	**5**	77	**8**	0	90	0	0	0	0	0	12	**158**	1	0	**171**	285
08:00 AM	14	**1**	11	0	26	5	**82**	6	0	**93**	0	**1**	0	0	**1**	**14**	149	**5**	0	168	**288**
08:15 AM	22	0	2	0	24	1	71	6	0	78	0	0	0	0	0	7	142	1	0	150	252
08:30 AM	**23**	0	**12**	0	**35**	0	54	8	0	62	**1**	0	0	0	1	6	150	0	0	156	254
Total Volume	72	1	36	0	109	11	284	28	0	323	1	1	0	0	2	39	599	7	0	645	1079
% App. Total	66.1	0.9	33	0		3.4	87.9	8.7	0		50	50	0	0		6	92.9	1.1	0		
PHF	.783	.250	.750	.000	.779	.550	.866	.875	.000	.868	.250	.250	.000	.000	.500	.696	.948	.350	.000	.943	.937
Lights	61	1	30	0	92	11	253	25	0	289	1	1	0	0	2	33	580	7	0	620	1003
% Lights	84.7	100	83.3	0	84.4	100	89.1	89.3	0	89.5	100	100	0	0	100	84.6	96.8	100	0	96.1	93.0
Trucks	11	0	6	0	17	0	31	3	0	34	0	0	0	0	0	6	19	0	0	25	76
% Trucks	15.3	0	16.7	0	15.6	0	10.9	10.7	0	10.5	0	0	0	0	0	15.4	3.2	0	0	3.9	7.0

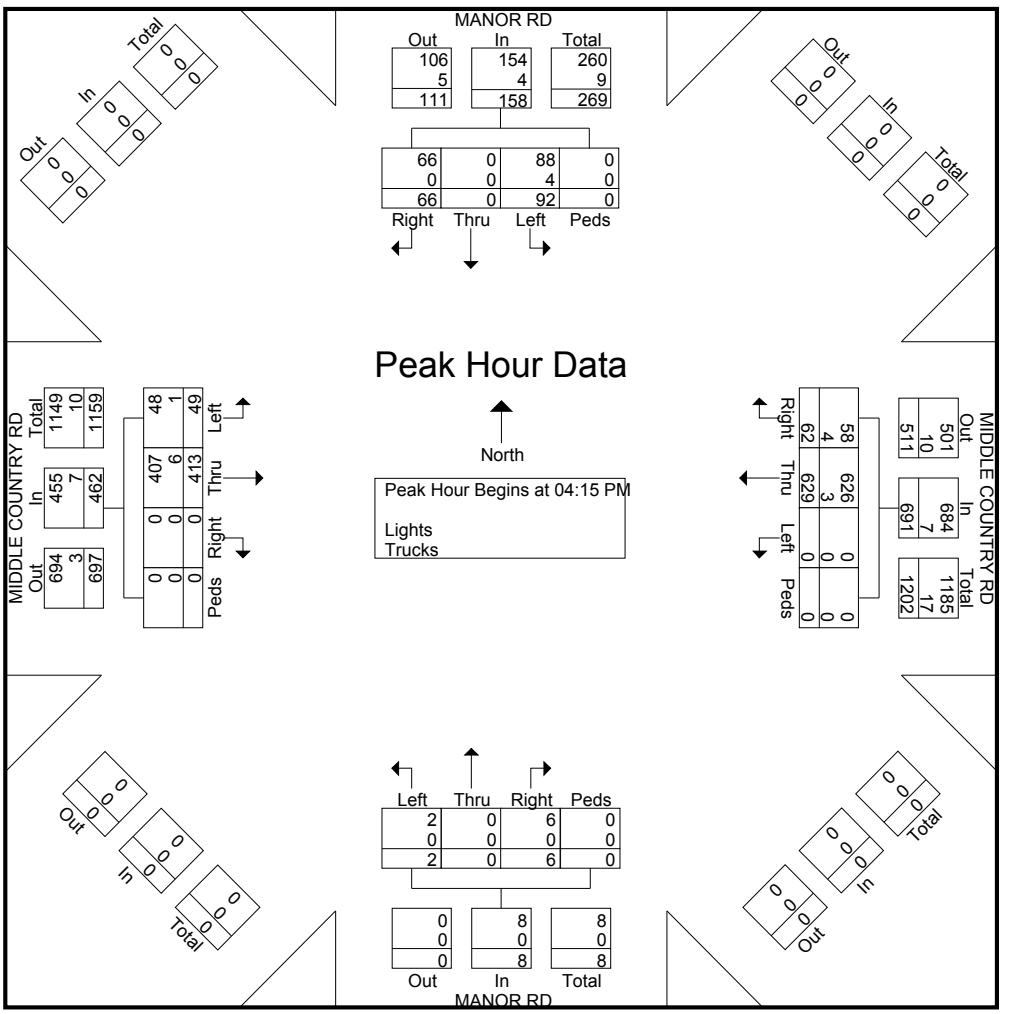


NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 1-MIDDLE_COUNTRY_RD_AT_MANOR_RD-THURS_745528_01-30-2020
Site Code :
Start Date : 1/30/2020
Page No : 3

	MANOR RD Southbound					MIDDLE COUNTRY RD Westbound					MANOR RD Northbound					MIDDLE COUNTRY RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	23	0	**23**	0	**46**	0	150	18	0	168	0	0	**5**	0	**5**	14	**108**	0	0	**122**	341
04:30 PM	**27**	0	13	0	40	0	145	**19**	0	164	0	0	0	0	0	9	104	0	0	113	317
04:45 PM	18	0	13	0	31	0	151	11	0	162	0	0	0	0	0	10	98	0	0	108	301
05:00 PM	24	0	17	0	41	0	**183**	14	0	**197**	**2**	0	1	0	3	**16**	103	0	0	119	**360**
Total Volume	92	0	66	0	158	0	629	62	0	691	2	0	6	0	8	49	413	0	0	462	1319
% App. Total	58.2	0	41.8	0		0	91	9	0		25	0	75	0		10.6	89.4	0	0		
PHF	.852	.000	.717	.000	.859	.000	.859	.816	.000	.877	.250	.000	.300	.000	.400	.766	.956	.000	.000	.947	.916
Lights	88	0	66	0	154	0	626	58	0	684	2	0	6	0	8	48	407	0	0	455	1301
% Lights	95.7	0	100	0	97.5	0	99.5	93.5	0	99.0	100	0	100	0	100	98.0	98.5	0	0	98.5	98.6
Trucks	4	0	0	0	4	0	3	4	0	7	0	0	0	0	0	1	6	0	0	7	18
% Trucks	4.3	0	0	0	2.5	0	0.5	6.5	0	1.0	0	0	0	0	0	2.0	1.5	0	0	1.5	1.4



NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 1-MIDDLE_COUNTRY_RD_AT_MANOR_RD-SAT_745571_02-01-2020
Site Code :
Start Date : 2/1/2020
Page No : 1

Groups Printed- Lights - Trucks

	MANOR RD Southbound					MIDDLE COUNRTY RD Westbound					MANOR RD Northbound					MIDDLE COUNTRY RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
11:00 AM	10	0	12	0	22	1	108	8	0	117	1	0	0	0	1	8	124	0	0	132	272
11:15 AM	7	1	8	0	16	0	118	10	0	128	0	1	1	0	2	5	149	0	0	154	300
11:30 AM	16	1	6	0	23	1	107	10	0	118	0	0	1	0	1	11	107	0	0	118	260
11:45 AM	18	0	9	0	27	1	118	12	0	131	0	0	0	0	0	9	151	0	0	160	318
Total	51	2	35	0	88	3	451	40	0	494	1	1	2	0	4	33	531	0	0	564	1150
12:00 PM	11	0	10	0	21	0	141	12	0	153	0	0	1	0	1	10	135	0	0	145	320
12:15 PM	19	0	15	0	34	1	126	17	0	144	0	0	1	0	1	4	141	0	0	145	324
12:30 PM	12	0	17	0	29	0	117	21	0	138	0	0	0	0	0	13	154	0	0	167	334
12:45 PM	23	0	15	0	38	0	146	15	0	161	0	0	0	0	0	12	143	0	0	155	354
Total	65	0	57	0	122	1	530	65	0	596	0	0	2	0	2	39	573	0	0	612	1332
01:00 PM	16	0	7	0	23	0	129	16	0	145	0	0	0	0	0	10	137	0	0	147	315
01:15 PM	23	0	17	0	40	0	126	15	0	141	0	0	0	0	0	9	137	0	0	146	327
01:30 PM	9	0	15	0	24	0	126	20	0	146	0	0	0	0	0	9	153	0	0	162	332
01:45 PM	18	0	12	0	30	0	135	18	0	153	0	0	1	0	1	8	137	0	0	145	329
Total	66	0	51	0	117	0	516	69	0	585	0	0	1	0	1	36	564	0	0	600	1303
Grand Total	182	2	143	0	327	4	1497	174	0	1675	1	1	5	0	7	108	1668	0	0	1776	3785
Apprch %	55.7	0.6	43.7	0		0.2	89.4	10.4	0		14.3	14.3	71.4	0		6.1	93.9	0	0		
Total %	4.8	0.1	3.8	0	8.6	0.1	39.6	4.6	0	44.3	0	0	0.1	0	0.2	2.9	44.1	0	0	46.9	
Lights	181	2	136	0	319	4	1478										1655				
% Lights	99.5	100	95.1	0	97.6	100	98.7	96.6	0	98.5	100	100	100	0	100	98.1	99.2	0	0	99.2	98.7
Trucks	1	0	7	0	8	0	19	6	0	25	0	0	0	0	0	2	13	0	0	15	48
% Trucks	0.5	0	4.9	0	2.4	0	1.3	3.4	0	1.5	0	0	0	0	0	1.9	0.8	0	0	0.8	1.3

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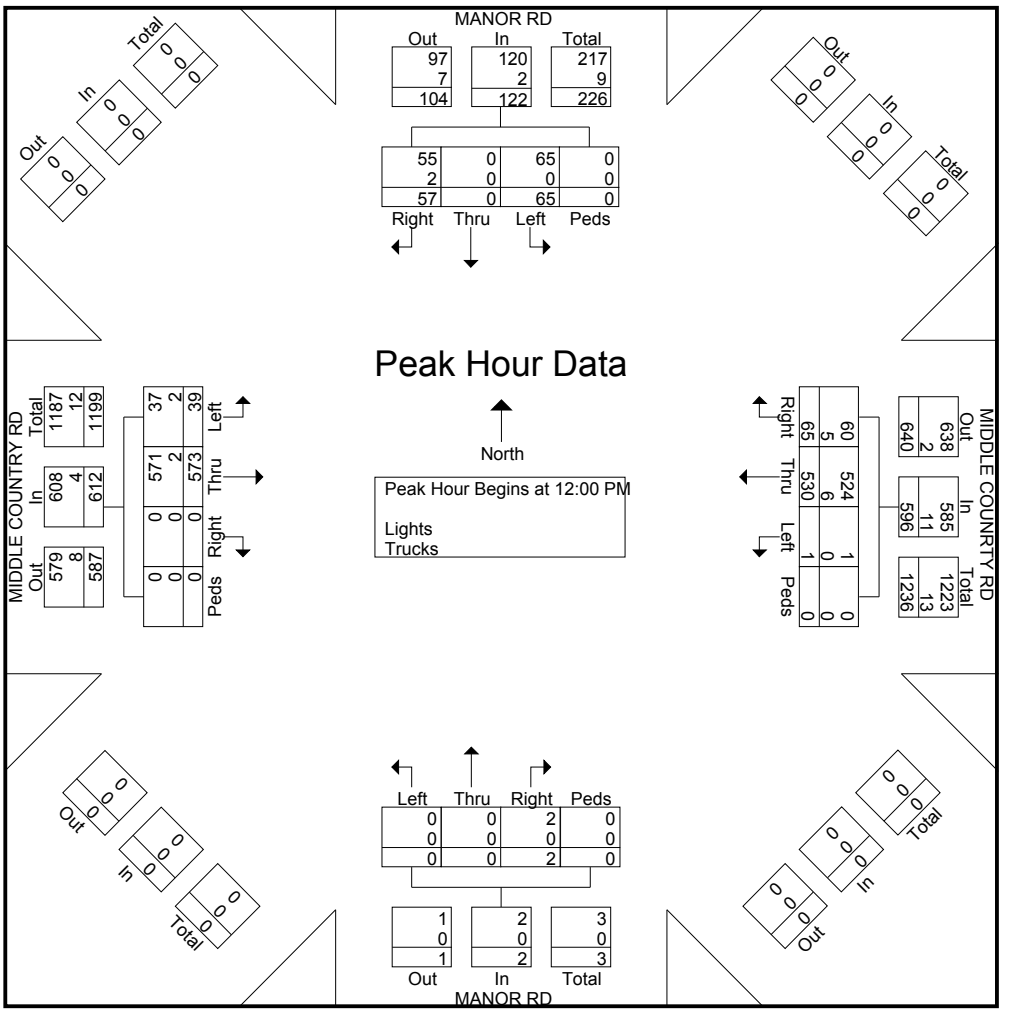
572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 1-MIDDLE_COUNTRY_RD_AT_MANOR_RD-SAT_745571_02-01-2020
Site Code :
Start Date : 2/1/2020
Page No : 2

	MANOR RD Southbound					MIDDLE COUNRTY RD Westbound					MANOR RD Northbound					MIDDLE COUNTRY RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	11	0	10	0	21	0	141	12	0	153	0	0	**1**	0	**1**	10	135	0	0	145	320
12:15 PM	19	0	15	0	34	**1**	126	17	0	144	0	0	1	0	1	4	141	0	0	145	324
12:30 PM	12	0	**17**	0	29	0	117	**21**	0	138	0	0	0	0	0	**13**	**154**	0	0	**167**	334
12:45 PM	**23**	0	15	0	**38**	0	**146**	15	0	**161**	0	0	0	0	0	12	143	0	0	155	**354**
Total Volume	65	0	57	0	122	1	530	65	0	596	0	0	2	0	2	39	573	0	0	612	1332
% App. Total	53.3	0	46.7	0		0.2	88.9	10.9	0		0	0	100	0		6.4	93.6	0	0		
PHF	.707	.000	.838	.000	.803	.250	.908	.774	.000	.925	.000	.000	.500	.000	.500	.750	.930	.000	.000	.916	.941
Lights	65	0	55	0	120	1	524	60	0	585	0	0	2	0	2	37	571	0	0	608	1315
% Lights	100	0	96.5	0	98.4	100	98.9	92.3	0	98.2	0	0	100	0	100	94.9	99.7	0	0	99.3	98.7
Trucks	0	0	2	0	2	0	6	5	0	11	0	0	0	0	0	2	2	0	0	4	17
% Trucks	0	0	3.5	0	1.6	0	1.1	7.7	0	1.8	0	0	0	0	0	5.1	0.3	0	0	0.7	1.3



NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 2-MANOR_RD_AT_TWOMEY_AVE-THURS_745520_01-30-2020
Site Code :
Start Date : 1/30/2020
Page No : 1

Groups Printed- Lights - Trucks

	TWOMEY AVE Southbound					MANOR RD Westbound					TWOMEY AVE Northbound					MANOR RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	1	0	4	0	5	0	10	1	0	11	0	0	0	0	0	0	1	1	0	2	18
06:15 AM	0	0	6	0	6	1	11	0	0	12	0	0	1	0	1	2	8	2	0	12	31
06:30 AM	0	1	8	0	9	6	6	0	0	12	0	0	0	0	0	4	7	7	0	18	39
06:45 AM	3	1	11	0	15	5	8	0	0	13	1	0	1	0	2	2	7	8	0	17	47
Total	4	2	29	0	35	12	35	1	0	48	1	0	2	0	3	8	23	18	0	49	135
07:00 AM	1	0	6	0	7	0	10	1	0	11	0	0	0	0	0	3	4	5	0	12	30
07:15 AM	0	0	4	0	4	0	9	1	0	10	0	0	2	0	2	6	3	4	0	13	29
07:30 AM	3	2	6	0	11	1	15	0	0	16	1	0	0	0	1	2	11	3	0	16	44
07:45 AM	0	0	13	0	13	0	13	1	0	14	1	0	0	0	1	5	9	2	0	16	44
Total	4	2	29	0	35	1	47	3	0	51	2	0	2	0	4	16	27	14	0	57	147
08:00 AM	1	0	8	0	9	2	20	2	0	24	1	0	1	0	2	5	16	3	0	24	59
08:15 AM	1	0	12	0	13	0	19	2	0	21	0	0	3	0	3	5	4	1	0	10	47
08:30 AM	2	0	16	0	18	2	16	0	0	18	3	1	1	0	5	7	6	1	0	14	55
08:45 AM	0	0	12	0	12	0	14	1	0	15	0	1	1	0	2	6	11	1	0	18	47
Total	4	0	48	0	52	4	69	5	0	78	4	2	6	0	12	23	37	6	0	66	208
04:00 PM	1	1	12	0	14	1	24	2	0	27	1	1	1	0	3	7	18	2	0	27	71
04:15 PM	1	1	5	0	7	0	42	1	0	43	0	0	0	0	0	10	20	1	0	31	81
04:30 PM	1	0	8	0	9	0	26	2	0	28	5	1	2	0	8	11	16	0	0	27	72
04:45 PM	1	0	11	0	12	0	21	0	0	21	1	0	1	0	2	10	12	2	0	24	59
Total	4	2	36	0	42	1	113	5	0	119	7	2	4	0	13	38	66	5	0	109	283
05:00 PM	1	0	6	0	7	2	30	3	0	35	4	1	1	0	6	16	14	0	0	30	78
05:15 PM	0	0	10	0	10	0	21	1	0	22	2	0	1	0	3	11	11	1	0	23	58
05:30 PM	4	0	4	0	8	0	22	0	0	22	4	1	1	0	6	7	12	0	0	19	55
05:45 PM	2	0	6	0	8	0	13	0	0	13	6	0	4	0	10	13	13	1	0	27	58
Total	7	0	26	0	33	2	86	4	0	92	16	2	7	0	25	47	50	2	0	99	249
06:00 PM	0	1	4	0	5	0	22	1	0	23	2	0	3	0	5	9	13	1	0	23	56
06:15 PM	2	1	5	0	8	2	17	3	0	22	2	0	3	0	5	10	8	1	0	19	54
06:30 PM	0	1	4	0	5	2	14	2	0	18	5	0	1	0	6	3	10	0	0	13	42
06:45 PM	6	0	2	0	8	2	5	1	0	8	2	0	3	0	5	4	10	0	0	14	35
Total	8	3	15	0	26	6	58	7	0	71	11	0	10	0	21	26	41	2	0	69	187
Grand Total	31	9	183	0	223	26	408	25	0	459	41	6	31	0	78	158	244	47	0	449	1209
Apprch %	13.9	4	82.1	0		5.7	88.9	5.4	0		52.6	7.7	39.7	0		35.2	54.3	10.5	0		
Total %	2.6	0.7	15.1	0	18.4	2.2	33.7	2.1	0	38	3.4	0.5	2.6	0	6.5	13.1	20.2	3.9	0	37.1	
Lights	30	7	174	0	211	25	382	21	0	428	37	6	27	0	70	149	233	38	0	420	1129
% Lights	96.8	77.8	95.1	0	94.6	96.2	93.6	84	0	93.2	90.2	100	87.1	0	89.7	94.3	95.5	80.9	0	93.5	93.4
Trucks	1	2	9	0	12	1	26	4	0	31	4	0	4	0	8	9	11	9	0	29	80
% Trucks	3.2	22.2	4.9	0	5.4	3.8	6.4	16	0	6.8	9.8	0	12.9	0	10.3	5.7	4.5	19.1	0	6.5	6.6

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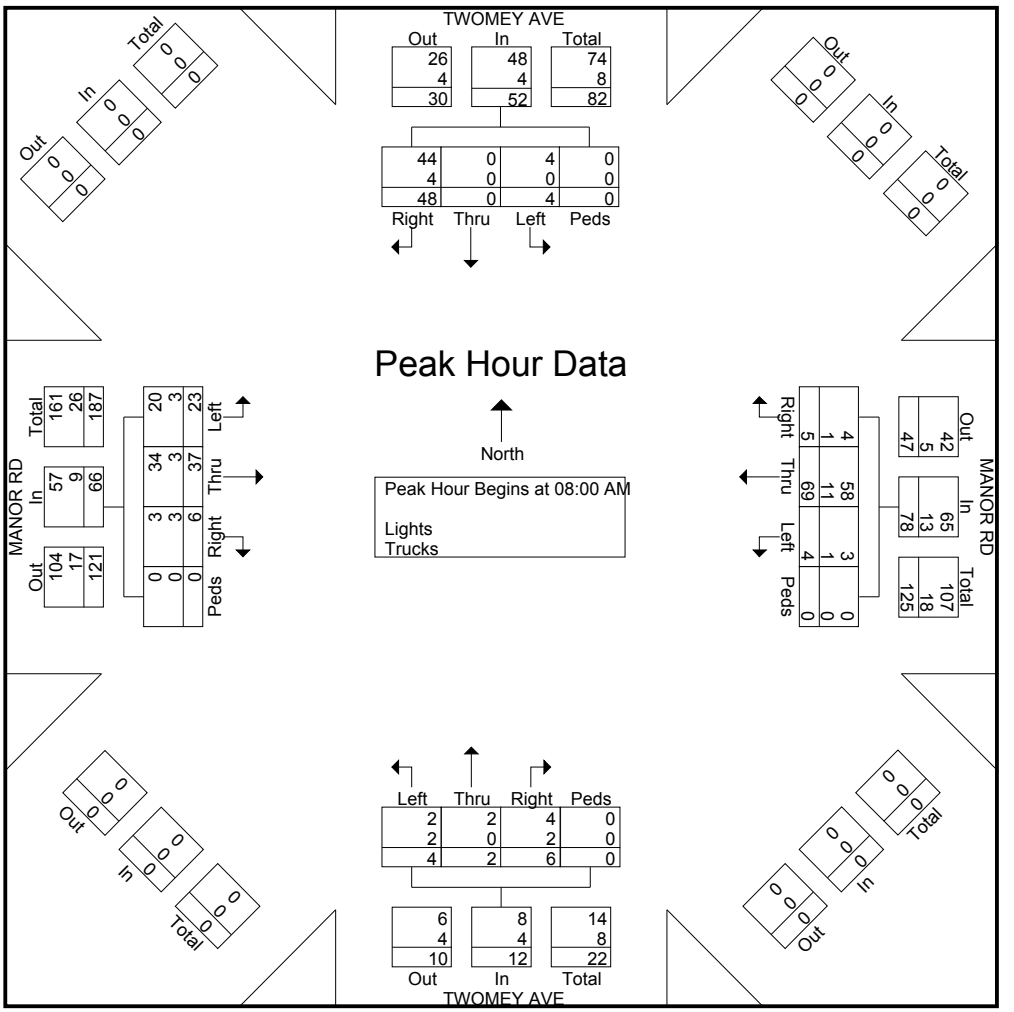
572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 2-MANOR_RD_AT_TWOMEY_AVE-THURS_745520_01-30-2020
Site Code :
Start Date : 1/30/2020
Page No : 2

	TWOMEY AVE Southbound					MANOR RD Westbound					TWOMEY AVE Northbound					MANOR RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	0	8	0	9	**2**	**20**	**2**	0	**24**	1	0	1	0	2	5	**16**	**3**	0	**24**	**59**
08:15 AM	1	0	12	0	13	0	19	2	0	21	0	0	**3**	0	3	5	4	1	0	10	47
08:30 AM	**2**	0	**16**	0	**18**	2	16	0	0	18	**3**	**1**	1	0	**5**	**7**	6	1	0	14	55
08:45 AM	0	0	12	0	12	0	14	1	0	15	0	1	1	0	2	6	11	1	0	18	47
Total Volume	4	0	48	0	52	4	69	5	0	78	4	2	6	0	12	23	37	6	0	66	208
% App. Total	7.7	0	92.3	0		5.1	88.5	6.4	0		33.3	16.7	50	0		34.8	56.1	9.1	0		
PHF	.500	.000	.750	.000	.722	.500	.863	.625	.000	.813	.333	.500	.500	.000	.600	.821	.578	.500	.000	.688	.881
Lights	4	0	44	0	48	3	58	4	0	65	2	2	4	0	8	20	34	3	0	57	178
% Lights	100	0	91.7	0	92.3	75.0	84.1	80.0	0	83.3	50.0	100	66.7	0	66.7	87.0	91.9	50.0	0	86.4	85.6
Trucks	0	0	4	0	4	1	11	1	0	13	2	0	2	0	4	3	3	3	0	9	30
% Trucks	0	0	8.3	0	7.7	25.0	15.9	20.0	0	16.7	50.0	0	33.3	0	33.3	13.0	8.1	50.0	0	13.6	14.4

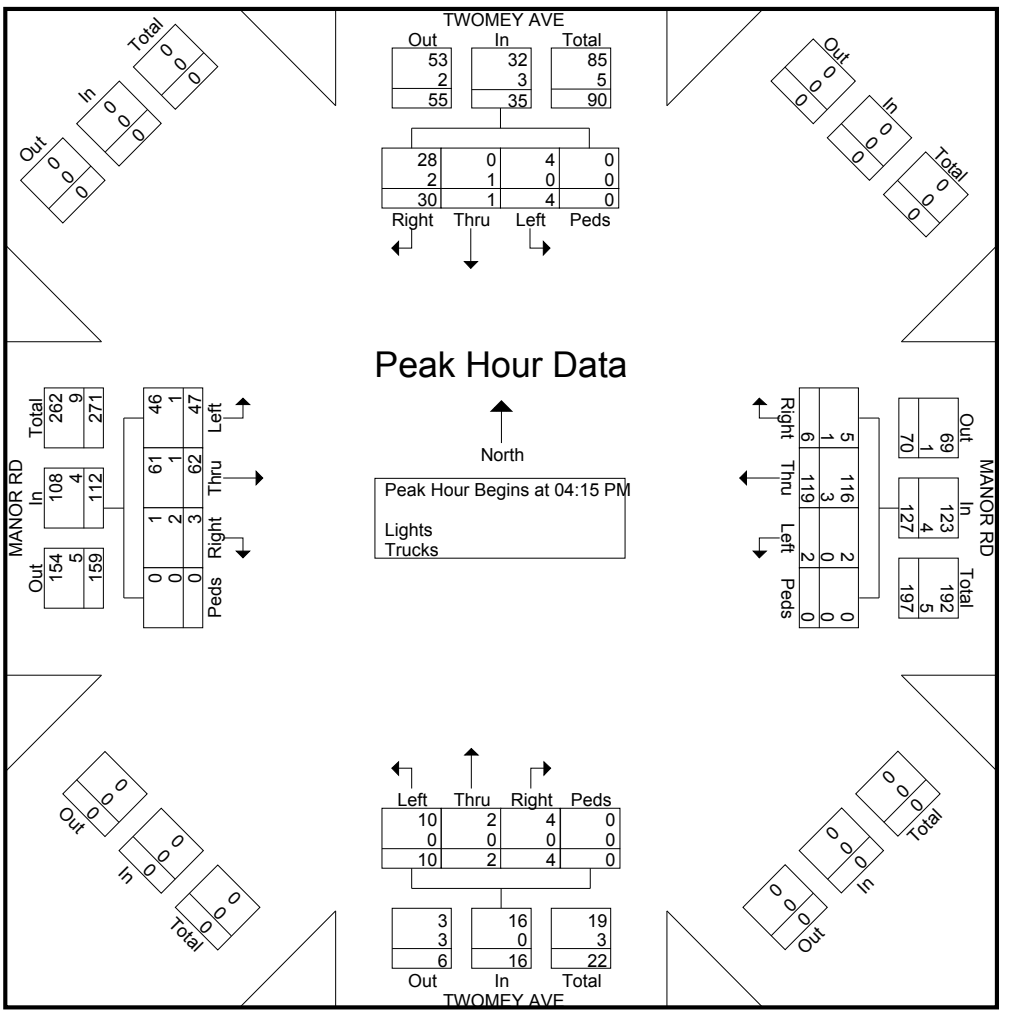


NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 2-MANOR_RD_AT_TWOMEY_AVE-THURS_745520_01-30-2020
Site Code :
Start Date : 1/30/2020
Page No : 3

	TWOMEY AVE Southbound					MANOR RD Westbound					TWOMEY AVE Northbound					MANOR RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	**1**	**1**	5	0	7	0	**42**	1	0	**43**	0	0	0	0	0	10	**20**	1	0	**31**	**81**
04:30 PM	1	0	8	0	9	0	26	2	0	28	**5**	**1**	**2**	0	**8**	11	16	0	0	27	72
04:45 PM	1	0	**11**	0	**12**	0	21	0	0	21	1	0	1	0	2	10	12	**2**	0	24	59
05:00 PM	1	0	6	0	7	**2**	30	**3**	0	35	4	1	1	0	6	**16**	14	0	0	30	78
Total Volume	4	1	30	0	35	2	119	6	0	127	10	2	4	0	16	47	62	3	0	112	290
% App. Total	11.4	2.9	85.7	0		1.6	93.7	4.7	0		62.5	12.5	25	0		42	55.4	2.7	0		
PHF	1.00	.250	.682	.000	.729	.250	.708	.500	.000	.738	.500	.500	.500	.000	.500	.734	.775	.375	.000	.903	.895
Lights	4	0	28	0	32	2	116	5	0	123	10	2	4	0	16	46	61	1	0	108	279
% Lights	100	0	93.3	0	91.4	100	97.5	83.3	0	96.9	100	100	100	0	100	97.9	98.4	33.3	0	96.4	96.2
Trucks	0	1	2	0	3	0	3	1	0	4	0	0	0	0	0	1	1	2	0	4	11
% Trucks	0	100	6.7	0	8.6	0	2.5	16.7	0	3.1	0	0	0	0	0	2.1	1.6	66.7	0	3.6	3.8



NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 2-MANOR_RD_AT_TWOMEY_AVE-SAT_745524_02-01-2020
Site Code :
Start Date : 2/1/2020
Page No : 1

Groups Printed- Lights - Trucks

	TWOMEY AVE Southbound					MANOR RD Westbound					TWOMEY AVE Northbound					MANOR RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
11:00 AM	3	2	10	0	15	0	10	0	0	10	1	0	1	0	2	12	8	0	0	20	47
11:15 AM	0	1	7	0	8	1	10	1	0	12	0	1	0	0	1	5	10	0	0	15	36
11:30 AM	2	1	10	0	13	1	12	2	0	15	0	0	4	0	4	4	11	1	0	16	48
11:45 AM	2	0	15	0	17	1	11	1	0	13	0	0	1	0	1	8	12	3	0	23	54
Total	7	4	42	0	53	3	43	4	0	50	1	1	6	0	8	29	41	4	0	74	185
12:00 PM	1	1	7	0	9	1	11	0	0	12	2	1	6	0	9	10	13	2	0	25	55
12:15 PM	0	0	9	0	9	0	22	2	0	24	3	0	4	0	7	6	7	3	0	16	56
12:30 PM	3	0	4	0	7	1	23	1	0	25	1	0	2	0	3	12	10	1	0	23	58
12:45 PM	1	0	17	0	18	1	21	2	0	24	2	0	3	0	5	15	24	0	0	39	86
Total	5	1	37	0	43	3	77	5	0	85	8	1	15	0	24	43	54	6	0	103	255
01:00 PM	1	1	5	0	7	1	16	2	0	19	2	0	0	0	2	9	13	1	0	23	51
01:15 PM	1	0	12	0	13	0	23	4	0	27	6	0	1	0	7	9	14	1	0	24	71
01:30 PM	1	0	3	0	4	0	17	2	0	19	2	0	0	0	2	6	20	3	0	29	54
01:45 PM	1	0	7	0	8	0	22	0	0	22	0	0	0	0	0	11	14	1	0	26	56
Total	4	1	27	0	32	1	78	8	0	87	10	0	1	0	11	35	61	6	0	102	232
Grand Total	16	6	106	0	128	7	198	17	0	222	19	2	22	0	43	107	156	16	0	279	672
Apprch %	12.5	4.7	82.8	0		3.2	89.2	7.7	0		44.2	4.7	51.2	0		38.4	55.9	5.7	0		
Total %	2.4	0.9	15.8	0	19	1	29.5	2.5	0	33	2.8	0.3	3.3	0	6.4	15.9	23.2	2.4	0	41.5	
Lights	15	6	101	0	122	7	195	17	0	219	19	2	22	0	43	104	154	13	0	271	655
% Lights	93.8	100	95.3	0	95.3	100	98.5	100	0	98.6	100	100	100	0	100	97.2	98.7	81.2	0	97.1	97.5
Trucks	1	0	5	0	6	0	3	0	0	3	0	0	0	0	0	3	2	3	0	8	17
% Trucks	6.2	0	4.7	0	4.7	0	1.5	0	0	1.4	0	0	0	0	0	2.8	1.3	18.8	0	2.9	2.5

NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 2-MANOR_RD_AT_TWOMEY_AVE-SAT_745524_02-01-2020
Site Code :
Start Date : 2/1/2020
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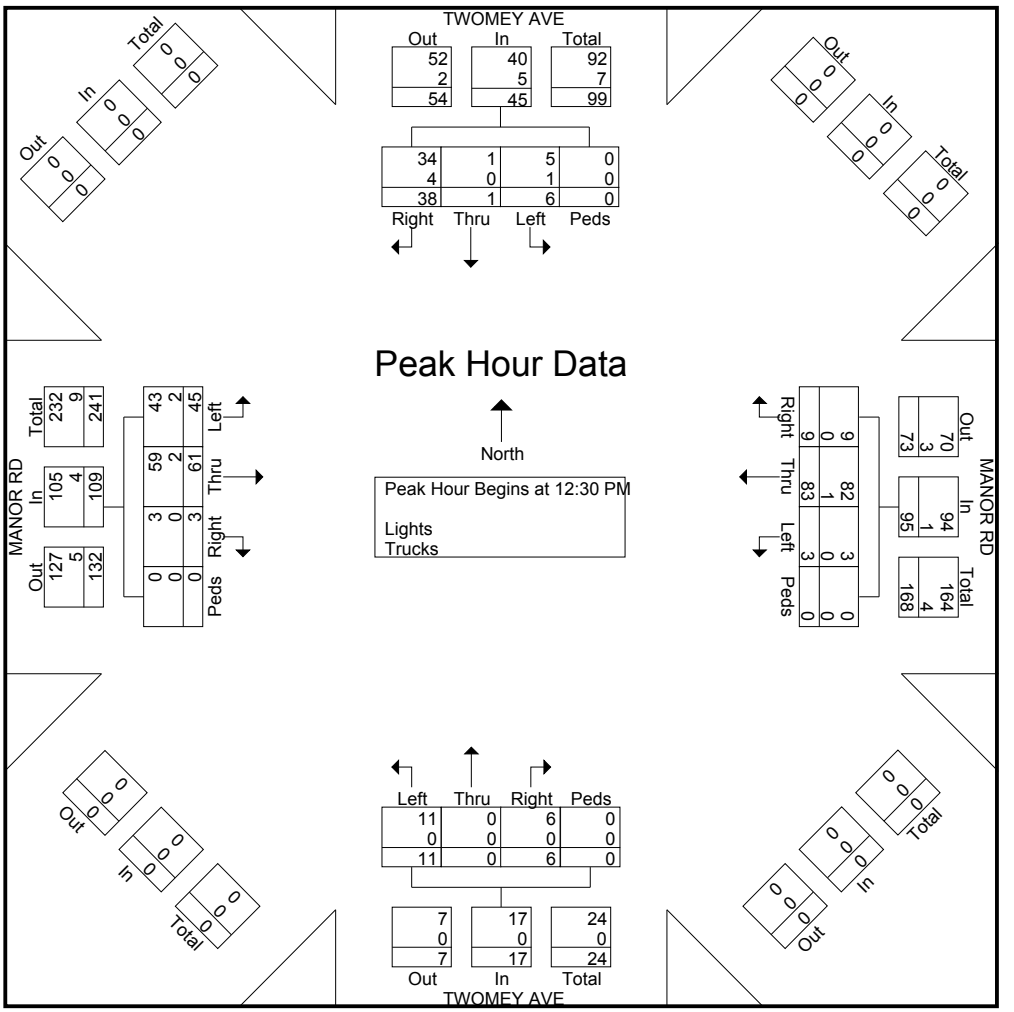
	TWOMEY AVE Southbound					MANOR RD Westbound					TWOMEY AVE Northbound					MANOR RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	**3**	0	4	0	7	**1**	**23**	1	0	25	1	0	2	0	3	12	10	**1**	0	23	58
12:45 PM	1	0	**17**	0	**18**	1	21	2	0	24	2	0	**3**	0	5	**15**	**24**	0	0	**39**	**86**
01:00 PM	1	**1**	5	0	7	1	16	2	0	19	2	0	0	0	2	9	13	1	0	23	51
01:15 PM	1	0	12	0	13	0	23	**4**	0	**27**	**6**	0	1	0	**7**	9	14	1	0	24	71
Total Volume	6	1	38	0	45	3	83	9	0	95	11	0	6	0	17	45	61	3	0	109	266
% App. Total	13.3	2.2	84.4	0		3.2	87.4	9.5	0		64.7	0	35.3	0		41.3	56	2.8	0		
PHF	.500	.250	.559	.000	.625	.750	.902	.563	.000	.880	.458	.000	.500	.000	.607	.750	.635	.750	.000	.699	.773
Lights	5	1	34	0	40	3	82	9	0	94	11	0	6	0	17	43	59	3	0	105	256
% Lights	83.3	100	89.5	0	88.9	100	98.8	100	0	98.9	100	0	100	0	100	95.6	96.7	100	0	96.3	96.2
Trucks	1	0	4	0	5	0	1	0	0	1	0	0	0	0	0	2	2	0	0	4	10
% Trucks	16.7	0	10.5	0	11.1	0	1.2	0	0	1.1	0	0	0	0	0	4.4	3.3	0	0	3.7	3.8



NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 3-MANOR_RD_AT_MIDDLE_RD-THURS_745515_01-30-2020
Site Code :
Start Date : 1/30/2020
Page No : 1

Groups Printed- Lights - Trucks

	MIDDLE RD Southbound					Westbound					MIDDLE RD Northbound					MANOR RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	0	2	10	0	12	0	0	0	0	0	1	0	0	0	1	1	0	1	0	2	15
06:15 AM	0	4	11	0	15	0	0	0	0	0	1	2	0	0	3	1	0	8	0	9	27
06:30 AM	0	1	13	0	14	0	0	0	0	0	0	0	0	0	0	2	0	4	0	6	20
06:45 AM	0	1	10	0	11	0	0	0	0	0	2	0	0	0	2	9	0	3	0	12	25
Total	0	8	44	0	52	0	0	0	0	0	4	2	0	0	6	13	0	16	0	29	87
07:00 AM	0	0	10	0	10	0	0	0	0	0	1	0	0	0	1	2	0	3	0	5	16
07:15 AM	0	3	9	0	12	0	0	0	0	0	1	0	0	0	1	3	0	1	0	4	17
07:30 AM	0	0	14	0	14	0	0	0	0	0	3	0	0	0	3	12	0	2	0	14	31
07:45 AM	0	2	13	0	15	0	0	0	0	0	4	0	0	0	4	4	0	5	0	9	28
Total	0	5	46	0	51	0	0	0	0	0	9	0	0	0	9	21	0	11	0	32	92
08:00 AM	0	0	16	0	16	0	0	0	0	0	5	0	0	0	5	15	0	1	0	16	37
08:15 AM	0	1	16	0	17	0	0	0	0	0	3	1	0	0	4	7	0	1	0	8	29
08:30 AM	0	0	16	0	16	0	0	0	0	0	2	1	0	0	3	8	0	3	0	11	30
08:45 AM	0	0	12	0	12	0	0	0	0	0	4	0	0	0	4	10	0	1	0	11	27
Total	0	1	60	0	61	0	0	0	0	0	14	2	0	0	16	40	0	6	0	46	123
04:00 PM	0	4	22	0	26	0	0	0	0	0	3	2	0	0	5	17	0	3	0	20	51
04:15 PM	0	3	40	0	43	0	0	0	0	0	3	3	0	0	6	15	0	4	0	19	68
04:30 PM	0	1	24	0	25	0	0	0	0	0	3	3	0	0	6	17	0	1	0	18	49
04:45 PM	0	1	17	0	18	0	0	0	0	0	4	1	0	0	5	14	0	0	0	14	37
Total	0	9	103	0	112	0	0	0	0	0	13	9	0	0	22	63	0	8	0	71	205
05:00 PM	0	0	35	0	35	0	0	0	0	0	1	0	0	0	1	16	0	1	0	17	53
05:15 PM	0	1	20	0	21	0	0	0	0	0	0	0	0	0	0	13	0	1	0	14	35
05:30 PM	0	1	22	0	23	0	0	0	0	0	1	2	0	0	3	15	0	0	0	15	41
05:45 PM	0	0	14	0	14	0	0	0	0	0	0	0	0	0	0	22	0	1	0	23	37
Total	0	2	91	0	93	0	0	0	0	0	2	2	0	0	4	66	0	3	0	69	166
06:00 PM	0	0	23	0	23	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13	36
06:15 PM	0	0	24	0	24	0	0	0	0	0	0	1	0	0	1	14	0	1	0	15	40
06:30 PM	0	0	17	0	17	0	0	0	0	0	1	1	0	0	2	12	0	0	0	12	31
06:45 PM	0	1	8	0	9	0	0	0	0	0	1	0	0	0	1	10	0	3	0	13	23
Total	0	1	72	0	73	0	0	0	0	0	2	2	0	0	4	49	0	4	0	53	130
Grand Total	0	26	416	0	442	0	0	0	0	0	44	17	0	0	61	252	0	48	0	300	803
Apprch %	0	5.9	94.1	0		0	0	0	0		72.1	27.9	0	0		84	0	16	0		
Total %	0	3.2	51.8	0	55	0	0	0	0	0	5.5	2.1	0	0	7.6	31.4	0	6	0	37.4	
Lights	0	26	408	0	434	0	0	0	0	0	24	16	0	0	40	247	0	38	0	285	759
% Lights	0	100	98.1	0	98.2	0	0	0	0	0	54.5	94.1	0	0	65.6	98	0	79.2	0	95	94.5
Trucks	0	0	8	0	8	0	0	0	0	0	20	1	0	0	21	5	0	10	0	15	44
% Trucks	0	0	1.9	0	1.8	0	0	0	0	0	45.5	5.9	0	0	34.4	2	0	20.8	0	5	5.5

NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 3-MANOR_RD_AT_MIDDLE_RD-THURS_745515_01-30-2020
Site Code :
Start Date : 1/30/2020
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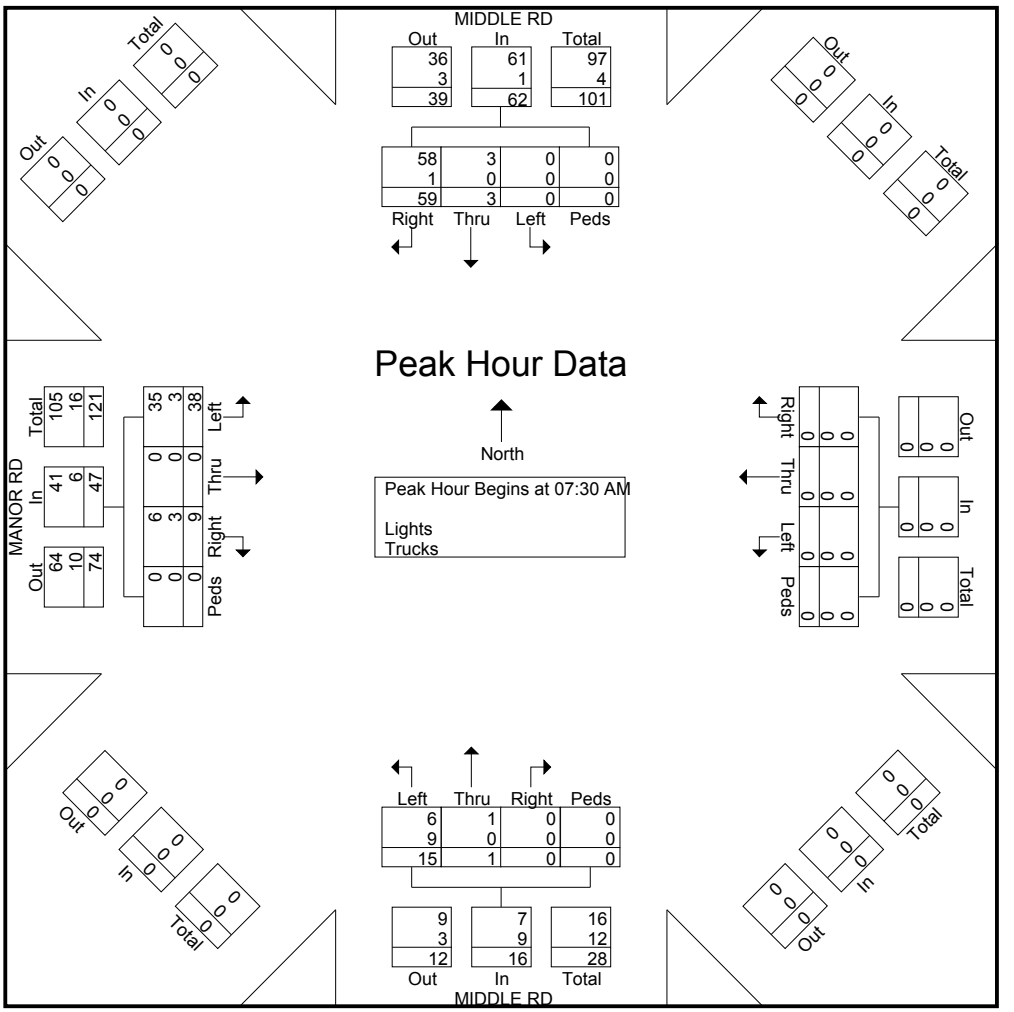
	MIDDLE RD Southbound					Westbound					MIDDLE RD Northbound					MANOR RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	14	0	14	0	0	0	0	0	3	0	0	0	3	12	0	2	0	14	31
07:45 AM	0	**2**	13	0	15	0	0	0	0	0	4	0	0	0	4	4	0	**5**	0	9	28
08:00 AM	0	0	**16**	0	16	0	0	0	0	0	**5**	0	0	0	**5**	**15**	0	1	0	**16**	**37**
08:15 AM	0	1	16	0	**17**	0	0	0	0	0	3	**1**	0	0	4	7	0	1	0	8	29
Total Volume	0	3	59	0	62	0	0	0	0	0	15	1	0	0	16	38	0	9	0	47	125
% App. Total	0	4.8	95.2	0		0	0	0	0		93.8	6.2	0	0		80.9	0	19.1	0		
PHF	.000	.375	.922	.000	.912	.000	.000	.000	.000	.000	.750	.250	.000	.000	.800	.633	.000	.450	.000	.734	.845
Lights	0	3	58	0	61	0	0	0	0	0	6	1	0	0	7	35	0	6	0	41	109
% Lights	0	100	98.3	0	98.4	0	0	0	0	0	40.0	100	0	0	43.8	92.1	0	66.7	0	87.2	87.2
Trucks	0	0	1	0	1	0	0	0	0	0	9	0	0	0	9	3	0	3	0	6	16
% Trucks	0	0	1.7	0	1.6	0	0	0	0	0	60.0	0	0	0	56.3	7.9	0	33.3	0	12.8	12.8



NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 3-MANOR_RD_AT_MIDDLE_RD-THURS_745515_01-30-2020
Site Code :
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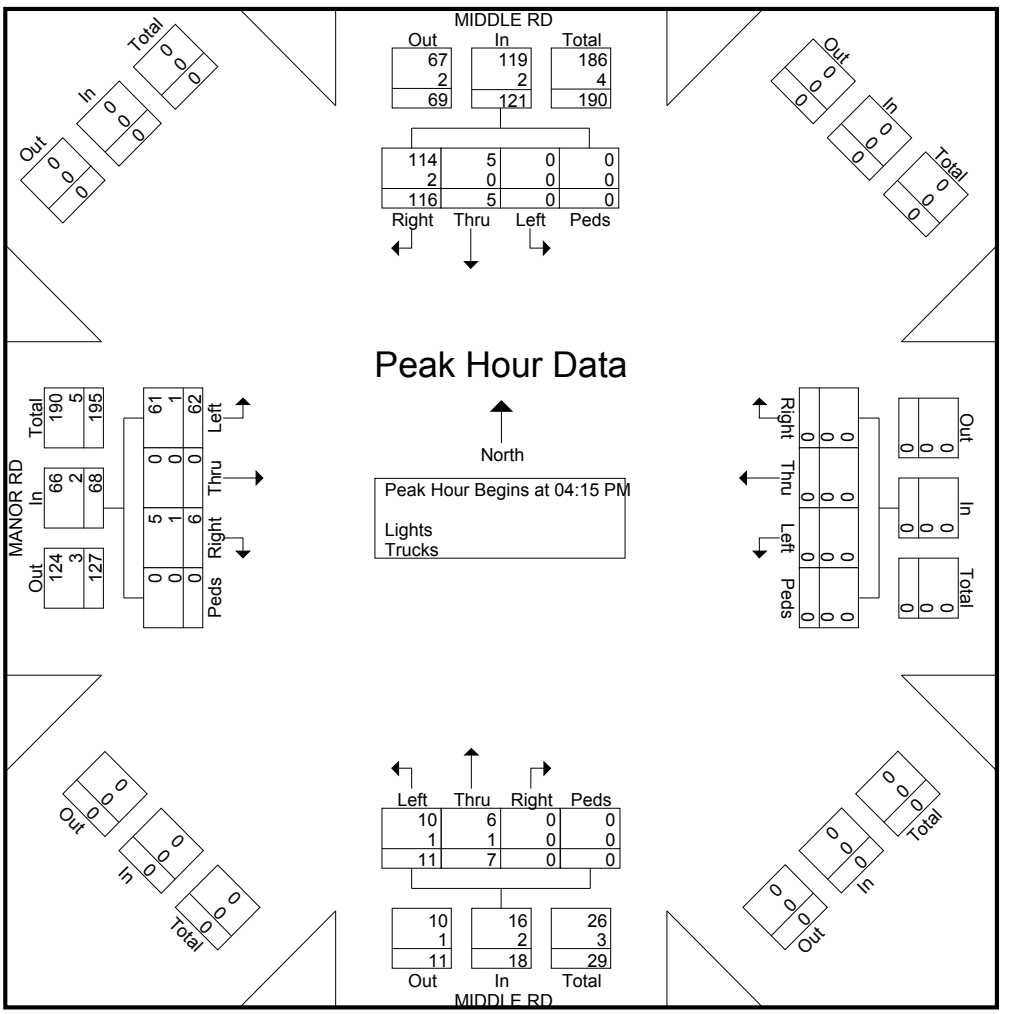
	MIDDLE RD Southbound					Westbound					MIDDLE RD Northbound					MANOR RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	**3**	**40**	0	**43**	0	0	0	0	0	3	**3**	0	0	**6**	15	0	**4**	0	**19**	**68**
04:30 PM	0	1	24	0	25	0	0	0	0	0	3	3	0	0	6	**17**	0	1	0	18	49
04:45 PM	0	1	17	0	18	0	0	0	0	0	**4**	1	0	0	5	14	0	0	0	14	37
05:00 PM	0	0	35	0	35	0	0	0	0	0	1	0	0	0	1	16	0	1	0	17	53
Total Volume	0	5	116	0	121	0	0	0	0	0	11	7	0	0	18	62	0	6	0	68	207
% App. Total	0	4.1	95.9	0		0	0	0	0		61.1	38.9	0	0		91.2	0	8.8	0		
PHF	.000	.417	.725	.000	.703	.000	.000	.000	.000	.000	.688	.583	.000	.000	.750	.912	.000	.375	.000	.895	.761
Lights	0	5	114	0	119	0	0	0	0	0	10	6	0	0	16	61	0	5	0	66	201
% Lights	0	100	98.3	0	98.3	0	0	0	0	0	90.9	85.7	0	0	88.9	98.4	0	83.3	0	97.1	97.1
Trucks	0	0	2	0	2	0	0	0	0	0	1	1	0	0	2	1	0	1	0	2	6
% Trucks	0	0	1.7	0	1.7	0	0	0	0	0	9.1	14.3	0	0	11.1	1.6	0	16.7	0	2.9	2.9



NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 3-MANOR_RD_AT_MIDDLE_RD-SAT_745517_02-01-2020
Site Code :
Start Date : 2/1/2020
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Groups Printed- Lights - Trucks

	MIDDLE RD Southbound					Westbound					MIDDLE RD Northbound					MANOR RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
11:00 AM	0	0	10	0	10	0	0	0	0	0	1	4	0	0	5	10	0	1	0	11	26
11:15 AM	0	0	10	0	10	0	0	0	0	0	2	2	0	0	4	10	0	1	0	11	25
11:30 AM	0	5	12	0	17	0	0	0	0	0	2	3	0	0	5	15	0	1	0	16	38
11:45 AM	0	0	11	0	11	0	0	0	0	0	1	2	0	0	3	14	0	0	0	14	28
Total	0	5	43	0	48	0	0	0	0	0	6	11	0	0	17	49	0	3	0	52	117
12:00 PM	0	1	9	0	10	0	0	0	0	0	2	1	0	0	3	19	0	1	0	20	33
12:15 PM	0	1	23	0	24	0	0	0	0	0	2	3	0	0	5	9	0	0	0	9	38
12:30 PM	0	1	22	0	23	0	0	0	0	0	2	1	0	0	3	16	0	0	0	16	42
12:45 PM	0	1	19	0	20	0	0	0	0	0	3	0	0	0	3	25	0	2	0	27	50
Total	0	4	73	0	77	0	0	0	0	0	9	5	0	0	14	69	0	3	0	72	163
01:00 PM	0	1	16	0	17	0	0	0	0	0	3	1	0	0	4	15	0	0	0	15	36
01:15 PM	0	0	28	0	28	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13	41
01:30 PM	0	0	18	0	18	0	0	0	0	0	0	0	0	0	0	22	0	1	0	23	41
01:45 PM	0	2	20	0	22	0	0	0	0	0	3	0	0	0	3	13	0	2	0	15	40
Total	0	3	82	0	85	0	0	0	0	0	6	1	0	0	7	63	0	3	0	66	158
Grand Total	0	12	198	0	210	0	0	0	0	0	21	17	0	0	38	181	0	9	0	190	438
Apprch %	0	5.7	94.3	0		0	0	0	0		55.3	44.7	0	0		95.3	0	4.7	0		
Total %	0	2.7	45.2	0	47.9	0	0	0	0	0	4.8	3.9	0	0	8.7	41.3	0	2.1	0	43.4	
Lights	0	12	196	0	208	0	0	0	0	0	19	16	0	0	35	180	0	8	0	188	431
% Lights	0	100	99	0	99	0	0	0	0	0	90.5	94.1	0	0	92.1	99.4	0	88.9	0	98.9	98.4
Trucks	0	0	2	0	2	0	0	0	0	0	2	1	0	0	3	1	0	1	0	2	7
% Trucks	0	0	1	0	1	0	0	0	0	0	9.5	5.9	0	0	7.9	0.6	0	11.1	0	1.1	1.6

NELSON & POPE.

572 WALT WHITMAN ROAD
MELVILLE, NY 11747

File Name : 3-MANOR_RD_AT_MIDDLE_RD-SAT_745517_02-01-2020
Site Code :
Start Date : 2/1/2020
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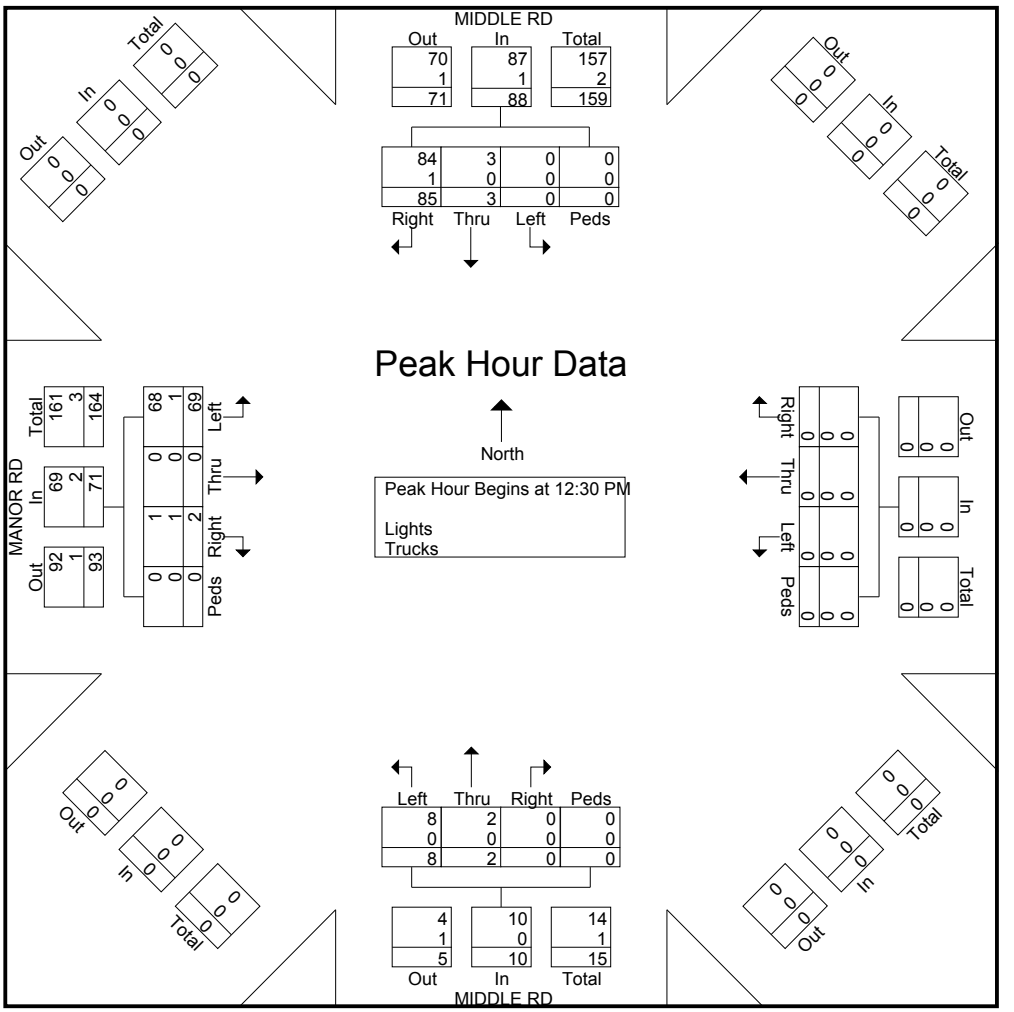
	MIDDLE RD Southbound					Westbound					MIDDLE RD Northbound					MANOR RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	0	**1**	22	0	23	0	0	0	0	0	2	**1**	0	0	3	16	0	0	0	16	42
12:45 PM	0	1	19	0	20	0	0	0	0	0	**3**	0	0	0	3	**25**	0	**2**	0	**27**	**50**
01:00 PM	0	1	16	0	17	0	0	0	0	0	3	1	0	0	**4**	15	0	0	0	15	36
01:15 PM	0	0	**28**	0	**28**	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13	41
Total Volume	0	3	85	0	88	0	0	0	0	0	8	2	0	0	10	69	0	2	0	71	169
% App. Total	0	3.4	96.6	0		0	0	0	0		80	20	0	0		97.2	0	2.8	0		
PHF	.000	.750	.759	.000	.786	.000	.000	.000	.000	.000	.667	.500	.000	.000	.625	.690	.000	.250	.000	.657	.845
Lights	0	3	84	0	87	0	0	0	0	0	8	2	0	0	10	68	0	1	0	69	166
% Lights	0	100	98.8	0	98.9	0	0	0	0	0	100	100	0	0	100	98.6	0	50.0	0	97.2	98.2
Trucks	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	3
% Trucks	0	0	1.2	0	1.1	0	0	0	0	0	0	0	0	0	0	1.4	0	50.0	0	2.8	1.8



STATION: **070043**

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 25** ROAD NAME:
DIRECTION: Eastbound FACTOR GROUP: 30
STATE DIR CODE: 1 WK OF YR: 22
DATE OF COUNT: 05/31/2009
NOTES LANE 1: EAST

FROM: **EDWARDS AVE**
REC. SERIAL #: 0659
PLACEMENT: BET CR 58 & MANOR
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS

TO: **CR 58 OLD COUNTRY RD**
FUNC. CLASS: 14
NHS: no
JURIS: NYSDOT
CC Stn:
BATCH ID: R10-DOTr10cw22

COUNTY: **Suffolk**
TOWN: **RIVERHEAD**
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

COUNT TAKEN BY: ORG CODE: DOT INITIALS: TS
PROCESSED BY: ORG CODE: DOT INITIALS: afa

DATE	DAY	AM 12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	PM 12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
31	S										**380**	**437**	**475**	**527**	**603**	**486**	**493**	**395**	**414**	**238**	**224**	**167**	**126**	**93**	**43**			
1	M	**28**	**18**	**13**	**46**	**38**	**125**	**339**	**630**	**718**	**525**	**538**	**533**	**485**	**589**	**458**	**488**	**463**	**431**	**372**	**305**	**197**	**146**	**105**	**54**	7644	718	8
2	T	**27**	**24**	**18**	**41**	**41**	**119**	**356**	**664**	**714**	**560**	**511**	**508**	**454**	**462**	**448**	**519**	**465**	**409**	**367**	**295**	**190**	**143**	**111**	**57**	7503	714	8
3	W	**40**	**21**	**21**	**19**	**62**	**136**	**349**	**662**	**697**	**557**	**503**	**512**	**484**	**486**	**442**	**515**	**542**	**414**	**379**	**273**	**165**	**113**	**90**	**49**	7531	697	8
4	T	**33**	**22**	**20**	**33**	**59**	**113**	**374**	**627**	**698**	**539**	**498**	**476**	**539**	**414**	**506**	**494**	**475**	**435**	**364**	**283**	**206**	**170**	**87**	**52**	7517	698	8
5	F	**36**	**25**	**21**	**36**	**46**	**124**	**350**	**615**	**658**	**572**	**473**	**550**	**566**	**451**	**465**	**489**	**489**	**416**	**383**	**279**	**209**	**147**	**132**	**98**	7630	658	8
6	S	**59**	**40**	**20**	**24**	**29**	**83**	**199**	**301**	**424**	**452**	**547**	**566**	**556**	**546**	**565**	**559**	**485**	**493**	**369**	**327**	**231**	**187**	**164**	**105**	7331	566	11
7	S	**64**	**26**	**22**	**23**	**25**	**59**	**136**	**197**	**263**	**379**	**493**	**492**	**494**	**505**	**488**	**442**	**448**	**398**	**330**	**212**	**168**	**113**	**94**	**38**	5909	505	13
8	M	**34**	**22**	**18**	**42**	**34**	**127**	**289**																				

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	ADT
33	**22**	**19**	**31**	**51**	**120**	**333**	**622**	**677**	**536**	**491**	**502**	**476**	**474**	**451**	**490**	**472**	**410**	**360**	**281**	**185**	**139**	**95**	**52**	**7322**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
9	190	4	103	677	9%	0.972	1.088

ESTIMATED (one way)

AADT
6730

STATION: **070043**

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 25** ROAD NAME:
DIRECTION: Westbound FACTOR GROUP: 30
STATE DIR CODE: 2 WK OF YR: 22
DATE OF COUNT: 05/31/2009
NOTES LANE 1: WEST

FROM: **EDWARDS AVE**
REC. SERIAL #: 0659
PLACEMENT: BET CR 58 & MANOR
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS

TO: **CR 58 OLD COUNTRY RD**
FUNC. CLASS: 14
NHS: no
JURIS: NYSDOT
CC Stn:
BATCH ID: R10-DOTr10cw22

COUNTY: **Suffolk**
TOWN: **RIVERHEAD**
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

COUNT TAKEN BY: ORG CODE: DOT INITIALS: TS
PROCESSED BY: ORG CODE: DOT INITIALS: afa

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
31	S										**283**	**373**	**447**	**537**	**518**	**528**	**495**	**525**	**539**	**405**	**341**	**345**	**191**	**90**	**72**			
1	M	**40**	**22**	**9**	**15**	**36**	**74**	**191**	**388**	**344**	**363**	**398**	**452**	**551**	**555**	**644**	**758**	**729**	**716**	**523**	**393**	**325**	**272**	**156**	**73**	8027	758	15
2	T	**40**	**23**	**19**	**18**	**37**	**76**	**217**	**347**	**353**	**374**	**431**	**459**	**528**	**527**	**707**	**741**	**764**	**700**	**519**	**379**	**376**	**284**	**155**	**89**	8163	764	16
3	W	**43**	**17**	**16**	**15**	**40**	**80**	**217**	**361**	**355**	**302**	**464**	**538**	**502**	**568**	**707**	**762**	**769**	**738**	**496**	**376**	**306**	**305**	**140**	**68**	8185	769	16
4	T	**37**	**27**	**16**	**20**	**28**	**70**	**216**	**357**	**328**	**316**	**395**	**461**	**517**	**535**	**673**	**748**	**790**	**738**	**503**	**411**	**316**	**325**	**152**	**88**	8067	790	16
5	F	**33**	**22**	**18**	**12**	**32**	**69**	**198**	**347**	**364**	**378**	**412**	**478**	**596**	**532**	**741**	**702**	**763**	**647**	**501**	**392**	**300**	**315**	**183**	**132**	8167	763	16
6	S	**76**	**39**	**19**	**16**	**33**	**65**	**99**	**235**	**268**	**388**	**417**	**570**	**628**	**615**	**602**	**628**	**655**	**598**	**503**	**441**	**395**	**439**	**265**	**128**	8122	655	16
7	S	**92**	**42**	**28**	**37**	**23**	**27**	**82**	**120**	**202**	**275**	**421**	**474**	**520**	**530**	**501**	**500**	**550**	**490**	**438**	**313**	**306**	**203**	**98**	**63**	6335	550	16
8	M	**39**	**24**	**14**	**12**	**44**	**72**	**190**																				

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	ADT
37	**21**	**17**	**16**	**33**	**72**	**199**	**350**	**339**	**337**	**408**	**465**	**509**	**531**	**664**	**731**	**742**	**703**	**496**	**379**	**322**	**288**	**147**	**78**	**7884**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
9	190	4	103	742	9%	0.972	1.088

ESTIMATED (one way)

AADT
7246

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

Start	27-Jan-20		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	*	*	*	*	0	0	0	0	2	2	0	0	0	0
01:00	*	*	*	*	*	*	0	1	0	1	1	0	0	0	0	0
02:00	*	*	*	*	*	*	2	0	1	0	1	1	0	1	1	0
03:00	*	*	*	*	*	*	0	1	0	1	1	3	1	1	0	2
04:00	*	*	*	*	*	*	3	8	6	4	1	2	0	0	2	4
05:00	*	*	*	*	*	*	7	24	3	22	2	13	1	4	3	16
06:00	*	*	*	*	*	*	9	**37**	16	31	9	15	0	0	8	**21**
07:00	*	*	*	*	*	*	15	20	18	19	5	9	4	4	10	13
08:00	*	*	*	*	*	*	18	13	15	12	1	7	3	0	9	8
09:00	*	*	*	*	*	*	13	24	15	**34**	9	**20**	2	4	10	20
10:00	*	*	*	*	*	*	**26**	37	**19**	22	7	11	**5**	**5**	14	19
11:00	*	*	*	*	*	*	22	31	17	28	**19**	8	2	3	**15**	18
12:00 PM	*	*	*	*	*	*	14	19	11	33	**16**	**11**	3	6	11	17
01:00	*	*	*	*	*	*	22	**30**	20	**37**	3	5	9	**7**	14	**20**
02:00	*	*	*	*	*	*	25	17	26	12	6	5	3	7	15	10
03:00	*	*	*	*	*	*	**29**	20	**41**	33	8	6	0	1	**20**	15
04:00	*	*	*	*	*	*	22	22	9	12	6	11	**11**	7	12	13
05:00	*	*	*	*	*	*	2	4	8	13	4	4	1	3	4	6
06:00	*	*	*	*	*	*	3	6	6	6	1	2	2	7	3	5
07:00	*	*	*	*	*	*	1	0	0	3	3	5	4	2	2	2
08:00	*	*	*	*	*	*	1	2	1	0	0	0	1	4	1	2
09:00	*	*	*	*	**5**	**1**	0	0	1	0	1	1	0	0	1	0
10:00	*	*	*	*	0	0	1	0	0	0	2	0	0	0	1	0
11:00	*	*	*	*	0	0	0	0	1	0	1	0	2	2	1	0
Lane	0	0	0	0	5	1	235	316	234	323	109	141	54	68	157	211
Day	0		0		6		551		557		250		122		368	
AM Peak	-	-	-	-	-	-	10:00	06:00	10:00	09:00	11:00	09:00	10:00	10:00	11:00	06:00
Vol.	-	-	-	-	-	-	26	37	19	34	19	20	5	5	15	21
PM Peak	-	-	-	-	21:00	21:00	15:00	13:00	15:00	13:00	12:00	12:00	16:00	13:00	15:00	13:00
Vol.	-	-	-	-	5	1	29	30	41	37	16	11	11	7	20	20

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

Start Time	03-Feb-20 NB	03-Feb-20 SB	Tue NB	Tue SB	Wed NB	Wed SB	Thu NB	Thu SB	Fri NB	Fri SB	Sat NB	Sat SB	Sun NB	Sun SB	Week Average NB	Week Average SB
12:00 AM	0	0	0	0	0	0	0	0	*	*	*	*	*	*	0	0
01:00	2	3	0	0	2	1	0	0	*	*	*	*	*	*	1	1
02:00	1	0	2	2	2	2	1	0	*	*	*	*	*	*	2	1
03:00	0	0	1	1	1	3	0	1	*	*	*	*	*	*	0	1
04:00	4	3	1	1	1	2	4	4	*	*	*	*	*	*	2	2
05:00	5	14	5	17	8	32	9	18	*	*	*	*	*	*	7	20
06:00	9	**41**	10	**42**	11	35	13	**40**	*	*	*	*	*	*	11	**40**
07:00	16	23	22	40	**25**	26	13	27	*	*	*	*	*	*	**19**	29
08:00	10	11	25	26	13	13	12	8	*	*	*	*	*	*	15	14
09:00	11	19	**32**	33	13	24	11	21	*	*	*	*	*	*	17	24
10:00	13	27	22	42	14	12	16	23	*	*	*	*	*	*	16	26
11:00	**18**	23	14	23	22	**41**	**21**	36	*	*	*	*	*	*	19	31
12:00 PM	9	11	17	**30**	17	23	11	20	*	*	*	*	*	*	14	21
01:00	14	**22**	15	19	9	11	**19**	**34**	*	*	*	*	*	*	14	**22**
02:00	**26**	18	17	25	**24**	**24**	16	18	*	*	*	*	*	*	21	21
03:00	24	21	**35**	20	20	13	19	5	*	*	*	*	*	*	**24**	15
04:00	21	13	25	21	15	23	0	0	*	*	*	*	*	*	15	14
05:00	6	4	6	7	10	12	0	0	*	*	*	*	*	*	6	6
06:00	1	2	2	1	6	2	0	0	*	*	*	*	*	*	2	1
07:00	0	2	0	2	1	1	0	0	*	*	*	*	*	*	0	1
08:00	5	3	1	1	1	2	*	*	*	*	*	*	*	*	2	2
09:00	0	2	1	0	1	1	*	*	*	*	*	*	*	*	1	1
10:00	0	0	0	0	0	0	*	*	*	*	*	*	*	*	0	0
11:00	0	0	0	0	0	0	*	*	*	*	*	*	*	*	0	0
Lane	195	262	253	353	216	303	165	255	0	0	0	0	0	0	208	293
Day	457		606		519		420		0		0		0		501	
AM Peak	11:00	06:00	09:00	06:00	07:00	11:00	11:00	06:00	-	-	-	-	-	-	07:00	06:00
Vol.	18	41	32	42	25	41	21	40	-	-	-	-	-	-	19	40
PM Peak	14:00	13:00	15:00	12:00	14:00	14:00	13:00	13:00	-	-	-	-	-	-	15:00	13:00
Vol.	26	22	35	30	24	24	19	34	-	-	-	-	-	-	24	22

Comb. Total	457	606	525	971	557	250	122	869

ADT ADT 437 AADT 437

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/29/20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
Percent	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.		21:00 5													

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/30/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	1	0	0	0	0	0	1	0	0	0	0	0	3
05:00	1	4	0	0	0	0	0	0	0	2	0	0	0	0	7
06:00	0	6	0	0	0	1	0	0	0	2	0	0	0	0	9
07:00	0	7	0	0	0	5	0	0	1	2	0	0	0	0	15
08:00	1	7	0	0	0	2	5	0	0	3	0	0	0	0	18
09:00	0	6	0	0	0	3	0	0	0	4	0	0	0	0	13
10:00	3	16	2	0	1	1	1	0	0	2	0	0	0	0	26
11:00	1	12	0	0	1	3	0	0	1	4	0	0	0	0	22
12 PM	0	6	1	0	1	4	0	0	0	2	0	0	0	0	14
13:00	1	12	3	0	0	2	1	0	1	2	0	0	0	0	22
14:00	6	17	1	0	0	1	0	0	0	0	0	0	0	0	25
15:00	4	24	0	0	0	0	0	0	1	0	0	0	0	0	29
16:00	4	15	1	0	0	1	0	0	1	0	0	0	0	0	22
17:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
18:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
19:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	21	142	9	0	3	23	7	0	7	23	0	0	0	0	235
Percent	8.9%	60.4%	3.8%	0.0%	1.3%	9.8%	3.0%	0.0%	3.0%	9.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	10:00	10:00		10:00	07:00	08:00		02:00	09:00					
Vol.	3	16	2		1	5	5		1	4					
PM Peak	14:00	15:00	13:00		12:00	12:00	13:00		13:00	12:00					
Vol.	6	24	3		1	4	1		1	2					

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/31/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	4	1	0	0	0	0	0	1	0	0	0	0	0	6
05:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
06:00	0	12	0	0	0	2	0	0	0	2	0	0	0	0	16
07:00	0	4	0	0	0	11	1	1	0	1	0	0	0	0	18
08:00	1	5	1	0	0	3	1	2	1	1	0	0	0	0	15
09:00	0	8	0	0	0	6	1	0	0	0	0	0	0	0	15
10:00	0	7	0	1	0	8	3	0	0	0	0	0	0	0	19
11:00	1	7	0	0	0	7	1	0	0	1	0	0	0	0	17
12 PM	2	5	0	0	0	3	0	0	0	1	0	0	0	0	11
13:00	3	11	2	0	0	3	0	0	1	0	0	0	0	0	20
14:00	5	14	0	0	1	3	2	0	0	1	0	0	0	0	26
15:00	5	29	4	0	1	1	0	0	0	1	0	0	0	0	41
16:00	2	7	0	0	0	0	0	0	0	0	0	0	0	0	9
17:00	2	5	1	0	0	0	0	0	0	0	0	0	0	0	8
18:00	2	4	0	0	0	0	0	0	0	0	0	0	0	0	6
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	24	127	9	1	2	47	9	3	4	8	0	0	0	0	234
Percent	10.3%	54.3%	3.8%	0.4%	0.9%	20.1%	3.8%	1.3%	1.7%	3.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	06:00	04:00	10:00		07:00	10:00	08:00	02:00	06:00					
Vol.	1	12	1	1		11	3	2	1	2					
PM Peak	14:00	15:00	15:00		14:00	12:00	14:00		13:00	12:00					
Vol.	5	29	4		1	3	2		1	1					

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/01/20	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
06:00	0	6	1	0	0	0	1	0	1	0	0	0	0	0	9
07:00	0	2	0	0	0	2	1	0	0	0	0	0	0	0	5
08:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
09:00	1	6	0	0	0	1	0	1	0	0	0	0	0	0	9
10:00	1	5	0	0	0	0	0	0	1	0	0	0	0	0	7
11:00	6	11	0	0	0	1	0	0	1	0	0	0	0	0	19
12 PM	2	14	0	0	0	0	0	0	0	0	0	0	0	0	16
13:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
14:00	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
15:00	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8
16:00	3	1	1	0	1	0	0	0	0	0	0	0	0	0	6
17:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4
18:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
19:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	18	75	2	0	1	5	2	1	5	0	0	0	0	0	109
Percent	16.5%	68.8%	1.8%	0.0%	0.9%	4.6%	1.8%	0.9%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	06:00			07:00	06:00	09:00	02:00						
Vol.	6	11	1			2	1	1	1						
PM Peak	16:00	12:00	16:00		16:00										
Vol.	3	14	1		1										

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
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CALVERTON,NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/02/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4
08:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
09:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
10:00	2	3	0	0	0	0	0	0	0	0	0	0	0	0	5
11:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
12 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
13:00	2	7	0	0	0	0	0	0	0	0	0	0	0	0	9
14:00	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	1	9	0	0	0	1	0	0	0	0	0	0	0	0	11
17:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
18:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
19:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	8	44	1	0	0	1	0	0	0	0	0	0	0	0	54
Percent	14.8%	81.5%	1.9%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00													
Vol.	2	3													
PM Peak	13:00	16:00	14:00			16:00									
Vol.	2	9	1			1									

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Latitude: 0' 0.0000 Undefined

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/03/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	1	0	0	0	0	0	1	0	0	0	0	0	4
05:00	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
06:00	1	4	0	0	0	2	0	0	1	1	0	0	0	0	9
07:00	1	7	0	0	0	3	3	0	1	1	0	0	0	0	16
08:00	2	2	1	0	0	1	1	0	0	3	0	0	0	0	10
09:00	1	5	0	0	0	3	0	0	0	2	0	0	0	0	11
10:00	0	5	0	0	0	5	1	0	1	1	0	0	0	0	13
11:00	2	10	1	0	0	3	0	0	0	2	0	0	0	0	18
12 PM	1	4	1	0	0	1	1	0	1	0	0	0	0	0	9
13:00	2	7	1	0	0	1	1	1	0	1	0	0	0	0	14
14:00	1	21	2	0	0	1	0	0	0	1	0	0	0	0	26
15:00	4	19	1	0	0	0	0	0	0	0	0	0	0	0	24
16:00	4	14	2	0	0	0	0	0	0	1	0	0	0	0	21
17:00	1	5	0	0	0	0	0	0	0	0	0	0	0	0	6
18:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	1	4	0	0	0	0	0	0	0	0	0	0	0	0	5
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	22	114	12	0	0	20	7	1	6	13	0	0	0	0	195
Percent	11.3%	58.5%	6.2%	0.0%	0.0%	10.3%	3.6%	0.5%	3.1%	6.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	05:00			10:00	07:00		01:00	08:00					
Vol.	2	10	2			5	3		1	3					
PM Peak	15:00	14:00	14:00			12:00	12:00	13:00	12:00	13:00					
Vol.	4	21	2			1	1	1	1	1					

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NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/04/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	2	2	0	0	0	0	0	0	0	1	0	0	0	0	5
06:00	0	7	0	0	0	1	0	0	0	2	0	0	0	0	10
07:00	1	7	1	1	0	7	3	1	0	1	0	0	0	0	22
08:00	1	13	4	1	0	4	0	0	1	1	0	0	0	0	25
09:00	3	12	6	0	0	7	1	0	0	3	0	0	0	0	32
10:00	2	8	3	0	0	5	0	0	1	3	0	0	0	0	22
11:00	1	9	0	0	0	2	1	0	0	1	0	0	0	0	14
12 PM	1	14	1	0	0	0	0	0	0	1	0	0	0	0	17
13:00	0	6	1	0	0	5	1	0	0	2	0	0	0	0	15
14:00	0	14	0	0	0	2	0	0	1	0	0	0	0	0	17
15:00	7	25	1	0	0	1	0	0	0	1	0	0	0	0	35
16:00	6	18	1	0	0	0	0	0	0	0	0	0	0	0	25
17:00	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
18:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	25	145	19	2	0	34	6	1	5	16	0	0	0	0	253
Percent	9.9%	57.3%	7.5%	0.8%	0.0%	13.4%	2.4%	0.4%	2.0%	6.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	09:00	07:00		07:00	07:00	07:00	02:00	09:00					
Vol.	3	13	6	1		7	3	1	1	3					
PM Peak	15:00	15:00	12:00			13:00	13:00		14:00	13:00					
Vol.	7	25	1			5	1		1	2					

TRAFFIC DATABANK LLC

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NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/05/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
02:00	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	3	3	0	0	0	0	0	0	0	2	0	0	0	0	8
06:00	0	4	0	0	0	4	1	0	1	1	0	0	0	0	11
07:00	1	9	1	0	0	8	4	1	0	1	0	0	0	0	25
08:00	1	7	0	0	0	4	0	0	0	1	0	0	0	0	13
09:00	1	4	1	0	0	5	0	0	1	1	0	0	0	0	13
10:00	2	4	4	0	1	2	1	0	0	0	0	0	0	0	14
11:00	2	10	1	0	1	6	1	1	0	0	0	0	0	0	22
12 PM	2	10	0	0	0	3	1	0	1	0	0	0	0	0	17
13:00	2	4	0	0	0	2	1	0	0	0	0	0	0	0	9
14:00	5	15	2	0	0	2	0	0	0	0	0	0	0	0	24
15:00	4	16	0	0	0	0	0	0	0	0	0	0	0	0	20
16:00	2	10	1	0	0	1	0	0	1	0	0	0	0	0	15
17:00	4	5	0	1	0	0	0	0	0	0	0	0	0	0	10
18:00	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
19:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	29	112	11	1	2	38	9	2	6	6	0	0	0	0	216
Percent	13.4%	51.9%	5.1%	0.5%	0.9%	17.6%	4.2%	0.9%	2.8%	2.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	11:00	10:00		10:00	07:00	07:00	07:00	02:00	05:00					
Vol.	3	10	4		1	8	4	1	1	2					
PM Peak	14:00	15:00	14:00	17:00		12:00	12:00		12:00						
Vol.	5	16	2	1		3	1		1						

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/06/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	1	1	0	0	0	0	4
05:00	2	4	1	0	0	0	0	0	0	2	0	0	0	0	9
06:00	0	7	1	0	0	2	0	0	0	3	0	0	0	0	13
07:00	1	7	0	0	0	3	2	0	0	0	0	0	0	0	13
08:00	0	5	0	0	0	3	1	0	0	3	0	0	0	0	12
09:00	0	8	0	0	0	0	0	0	1	2	0	0	0	0	11
10:00	0	12	1	0	0	2	1	0	0	0	0	0	0	0	16
11:00	2	11	2	0	0	0	1	0	1	4	0	0	0	0	21
12 PM	1	5	0	0	0	1	0	0	1	3	0	0	0	0	11
13:00	3	13	0	1	0	0	0	0	0	2	0	0	0	0	19
14:00	1	13	1	0	0	0	0	0	0	1	0	0	0	0	16
15:00	4	14	0	0	0	1	0	0	0	0	0	0	0	0	19
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	14	102	6	1	0	12	5	0	4	21	0	0	0	0	165
Percent	8.5%	61.8%	3.6%	0.6%	0.0%	7.3%	3.0%	0.0%	2.4%	12.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	10:00	11:00			07:00	07:00		04:00	11:00					
Vol.	2	12	2			3	2		1	4					
PM Peak	15:00	15:00	14:00	13:00		12:00			12:00	12:00					
Vol.	4	14	1	1		1			1	3					
Grand Total	161	866	69	5	8	180	45	8	37	87	0	0	0	0	1466
Percent	11.0%	59.1%	4.7%	0.3%	0.5%	12.3%	3.1%	0.5%	2.5%	5.9%	0.0%	0.0%	0.0%	0.0%	

TRAFFIC DATABANK LLC
716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/29/20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Percent	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.		21:00 1													

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/30/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	3	2	3	0	0	0	0	0	0	0	0	0	0	0	8
05:00	5	11	6	0	0	2	0	0	0	0	0	0	0	0	24
06:00	6	24	7	0	0	0	0	0	0	0	0	0	0	0	37
07:00	4	11	2	0	1	1	0	0	1	0	0	0	0	0	20
08:00	2	6	4	0	1	0	0	0	0	0	0	0	0	0	13
09:00	4	13	4	0	0	2	1	0	0	0	0	0	0	0	24
10:00	8	11	10	0	2	3	0	0	1	1	0	0	1	0	37
11:00	5	12	8	0	1	4	0	0	0	1	0	0	0	0	31
12 PM	3	5	6	0	1	1	1	0	1	1	0	0	0	0	19
13:00	2	14	8	1	0	1	1	0	1	1	0	0	1	0	30
14:00	4	7	1	0	1	3	0	0	1	0	0	0	0	0	17
15:00	5	11	2	0	1	1	0	0	0	0	0	0	0	0	20
16:00	6	9	4	1	0	2	0	0	0	0	0	0	0	0	22
17:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0	4
18:00	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	63	141	68	2	8	20	3	0	5	4	0	0	2	0	316
Percent	19.9%	44.6%	21.5%	0.6%	2.5%	6.3%	0.9%	0.0%	1.6%	1.3%	0.0%	0.0%	0.6%	0.0%	
AM Peak	10:00	06:00	10:00		10:00	11:00	09:00		07:00	10:00			10:00		
Vol.	8	24	10		2	4	1		1	1			1		
PM Peak	16:00	13:00	13:00	13:00	12:00	14:00	12:00		12:00	12:00			13:00		
Vol.	6	14	8	1	1	3	1		1	1			1		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/31/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
05:00	5	13	4	0	0	0	0	0	0	0	0	0	0	0	22
06:00	6	17	4	0	0	3	0	0	0	1	0	0	0	0	31
07:00	2	14	2	0	0	0	0	0	1	0	0	0	0	0	19
08:00	4	5	1	0	0	1	0	0	0	0	0	0	1	0	12
09:00	5	12	9	0	1	5	2	0	0	0	0	0	0	0	34
10:00	4	8	5	1	0	3	1	0	0	0	0	0	0	0	22
11:00	8	11	3	0	0	5	0	0	0	1	0	0	0	0	28
12 PM	7	13	5	0	0	6	2	0	0	0	0	0	0	0	33
13:00	10	15	5	0	1	4	2	0	0	0	0	0	0	0	37
14:00	2	3	5	0	0	2	0	0	0	0	0	0	0	0	12
15:00	4	18	5	0	0	4	2	0	0	0	0	0	0	0	33
16:00	2	7	2	0	0	1	0	0	0	0	0	0	0	0	12
17:00	3	7	3	0	0	0	0	0	0	0	0	0	0	0	13
18:00	2	3	0	0	0	1	0	0	0	0	0	0	0	0	6
19:00	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	65	153	53	1	2	36	9	0	1	2	0	0	1	0	323
Percent	20.1%	47.4%	16.4%	0.3%	0.6%	11.1%	2.8%	0.0%	0.3%	0.6%	0.0%	0.0%	0.3%	0.0%	
AM Peak	11:00	06:00	09:00	10:00	09:00	09:00	09:00		07:00	06:00			08:00		
Vol.	8	17	9	1	1	5	2		1	1			1		
PM Peak	13:00	15:00	12:00		13:00	12:00	12:00								
Vol.	10	18	5		1	6	2								

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/01/20	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
04:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00	3	9	1	0	0	0	0	0	0	0	0	0	0	0	13
06:00	1	11	1	1	0	1	0	0	0	0	0	0	0	0	15
07:00	1	6	1	1	0	0	0	0	0	0	0	0	0	0	9
08:00	0	3	3	0	1	0	0	0	0	0	0	0	0	0	7
09:00	2	9	1	0	0	6	1	0	1	0	0	0	0	0	20
10:00	2	7	0	0	0	2	0	0	0	0	0	0	0	0	11
11:00	3	5	0	0	0	0	0	0	0	0	0	0	0	0	8
12 PM	5	4	1	0	0	0	1	0	0	0	0	0	0	0	11
13:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
14:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
15:00	1	4	0	0	0	1	0	0	0	0	0	0	0	0	6
16:00	4	6	1	0	0	0	0	0	0	0	0	0	0	0	11
17:00	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
18:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
19:00	2	3	0	0	0	0	0	0	0	0	0	0	0	0	5
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	30	86	9	2	1	10	2	0	1	0	0	0	0	0	141
Percent	21.3%	61.0%	6.4%	1.4%	0.7%	7.1%	1.4%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	06:00	08:00	06:00	08:00	09:00	09:00		09:00						
Vol.	3	11	3	1	1	6	1		1						
PM Peak	12:00	16:00	12:00			15:00	12:00								
Vol.	5	6	1			1	1								

TRAFFIC DATABANK LLC

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SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/02/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	2	1	0	0	0	0	0	0	0	0	0	0	0	4
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
10:00	1	4	0	0	0	0	0	0	0	0	0	0	0	0	5
11:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
12 PM	2	3	1	0	0	0	0	0	0	0	0	0	0	0	6
13:00	2	4	1	0	0	0	0	0	0	0	0	0	0	0	7
14:00	3	3	1	0	0	0	0	0	0	0	0	0	0	0	7
15:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
16:00	1	5	1	0	0	0	0	0	0	0	0	0	0	0	7
17:00	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
18:00	2	4	1	0	0	0	0	0	0	0	0	0	0	0	7
19:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
20:00	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Total	20	40	8	0	0	0	0	0	0	0	0	0	0	0	68
Percent	29.4%	58.8%	11.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	10:00	05:00												
Vol.	1	4	1												
PM Peak	14:00	16:00	12:00												
Vol.	3	5	1												

TRAFFIC DATABANK LLC

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Site Code:
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Latitude: 0' 0.0000 Undefined

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/03/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	2	0	1	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	1	0	0	0	1	0	0	0	0	0	0	0	0	3
05:00	4	8	1	0	0	1	0	0	0	0	0	0	0	0	14
06:00	11	22	6	0	1	0	0	0	1	0	0	0	0	0	41
07:00	6	10	5	0	0	1	0	0	0	0	0	0	1	0	23
08:00	1	7	0	0	0	1	0	0	1	0	0	0	1	0	11
09:00	4	10	3	1	0	0	1	0	0	0	0	0	0	0	19
10:00	3	11	5	0	2	3	3	0	0	0	0	0	0	0	27
11:00	5	10	6	0	1	0	1	0	0	0	0	0	0	0	23
12 PM	3	4	3	0	0	0	0	0	1	0	0	0	0	0	11
13:00	6	7	4	0	0	2	2	0	0	1	0	0	0	0	22
14:00	2	11	3	0	0	1	1	0	0	0	0	0	0	0	18
15:00	3	9	3	0	0	3	1	0	1	0	0	0	1	0	21
16:00	4	6	1	0	0	2	0	0	0	0	0	0	0	0	13
17:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4
18:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
19:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
20:00	2	0	1	0	0	0	0	0	0	0	0	0	0	0	3
21:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	61	120	44	1	4	15	9	0	4	1	0	0	3	0	262
Percent	23.3%	45.8%	16.8%	0.4%	1.5%	5.7%	3.4%	0.0%	1.5%	0.4%	0.0%	0.0%	1.1%	0.0%	
AM Peak	06:00	06:00	06:00	09:00	10:00	10:00	10:00		06:00				07:00		
Vol.	11	22	6	1	2	3	3		1				1		
PM Peak	13:00	14:00	13:00			15:00	13:00		12:00	13:00			15:00		
Vol.	6	11	4			3	2		1	1			1		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/04/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00	4	9	2	0	0	2	0	0	0	0	0	0	0	0	17
06:00	9	25	5	0	0	1	0	0	1	0	0	0	1	0	42
07:00	5	26	8	0	1	0	0	0	0	0	0	0	0	0	40
08:00	7	9	6	0	0	2	1	0	1	0	0	0	0	0	26
09:00	7	13	10	0	0	2	1	0	0	0	0	0	0	0	33
10:00	7	15	14	1	1	3	0	0	0	1	0	0	0	0	42
11:00	4	10	6	0	1	1	1	0	0	0	0	0	0	0	23
12 PM	9	9	5	0	1	3	1	0	2	0	0	0	0	0	30
13:00	4	8	5	0	0	2	0	0	0	0	0	0	0	0	19
14:00	2	12	7	0	0	3	1	0	0	0	0	0	0	0	25
15:00	5	8	3	0	0	4	0	0	0	0	0	0	0	0	20
16:00	4	10	6	0	0	1	0	0	0	0	0	0	0	0	21
17:00	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7
18:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
19:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
20:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	70	164	78	1	4	25	5	0	4	1	0	0	1	0	353
Percent	19.8%	46.5%	22.1%	0.3%	1.1%	7.1%	1.4%	0.0%	1.1%	0.3%	0.0%	0.0%	0.3%	0.0%	
AM Peak	06:00	07:00	10:00	10:00	07:00	10:00	08:00		06:00	10:00			06:00		
Vol.	9	26	14	1	1	3	1		1	1			1		
PM Peak	12:00	14:00	14:00		12:00	15:00	12:00		12:00						
Vol.	9	12	7		1	4	1		2						

TRAFFIC DATABANK LLC
716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/05/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
03:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
04:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
05:00	8	9	14	0	0	1	0	0	0	0	0	0	0	0	32
06:00	9	19	5	0	0	2	0	0	0	0	0	0	0	0	35
07:00	6	11	7	0	0	1	1	0	0	0	0	0	0	0	26
08:00	1	8	2	0	1	0	0	0	0	0	0	0	1	0	13
09:00	4	9	5	0	1	3	2	0	0	0	0	0	0	0	24
10:00	3	5	3	0	0	1	0	0	0	0	0	0	0	0	12
11:00	4	15	13	1	2	3	3	0	0	0	0	0	0	0	41
12 PM	6	8	5	1	0	1	1	0	0	0	0	0	1	0	23
13:00	2	7	0	0	0	0	2	0	0	0	0	0	0	0	11
14:00	5	10	4	0	1	2	2	0	0	0	0	0	0	0	24
15:00	3	4	4	0	0	2	0	0	0	0	0	0	0	0	13
16:00	6	9	6	0	0	1	1	0	0	0	0	0	0	0	23
17:00	2	3	0	0	0	6	1	0	0	0	0	0	0	0	12
18:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
19:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
20:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	64	122	71	2	5	24	13	0	0	0	0	0	2	0	303
Percent	21.1%	40.3%	23.4%	0.7%	1.7%	7.9%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	
AM Peak	06:00	06:00	05:00	11:00	11:00	09:00	11:00						08:00		
Vol.	9	19	14	1	2	3	3						1		
PM Peak	12:00	14:00	16:00	12:00	14:00	17:00	13:00						12:00		
Vol.	6	10	6	1	1	6	2						1		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MIDDLE RD S OF MANOR RD
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/06/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	1	2	0	0	0	0	0	0	0	0	0	0	1	0	4
05:00	4	12	2	0	0	0	0	0	0	0	0	0	0	0	18
06:00	12	21	7	0	0	0	0	0	0	0	0	0	0	0	40
07:00	6	10	8	0	1	2	0	0	0	0	0	0	0	0	27
08:00	2	4	1	0	0	1	0	0	0	0	0	0	0	0	8
09:00	3	10	3	0	0	3	1	0	0	1	0	0	0	0	21
10:00	8	10	3	0	0	1	0	0	1	0	0	0	0	0	23
11:00	6	17	8	1	0	1	2	0	0	0	0	0	1	0	36
12 PM	1	12	4	0	0	1	1	0	0	0	0	0	1	0	20
13:00	7	15	10	1	1	0	0	0	0	0	0	0	0	0	34
14:00	4	2	10	0	1	0	0	0	0	1	0	0	0	0	18
15:00	0	4	0	0	0	0	0	0	0	1	0	0	0	0	5
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	54	120	56	2	3	9	4	0	1	3	0	0	3	0	255
Percent	21.2%	47.1%	22.0%	0.8%	1.2%	3.5%	1.6%	0.0%	0.4%	1.2%	0.0%	0.0%	1.2%	0.0%	
AM Peak	06:00	06:00	07:00	11:00	07:00	09:00	11:00		10:00	09:00			04:00		
Vol.	12	21	8	1	1	3	2		1	1			1		
PM Peak	13:00	13:00	13:00	13:00	13:00	12:00	12:00			14:00			12:00		
Vol.	7	15	10	1	1	1	1			1			1		
Grand Total	427	947	387	11	27	139	45	0	16	11	0	0	12	0	2022
Percent	21.1%	46.8%	19.1%	0.5%	1.3%	6.9%	2.2%	0.0%	0.8%	0.5%	0.0%	0.0%	0.6%	0.0%	

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

Start	27-Jan-20		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	*	*	*	*	*	*	3	4	1	4	2	8	3	12	2	7
01:00	*	*	*	*	*	*	0	5	3	4	4	5	3	4	2	4
02:00	*	*	*	*	*	*	2	2	3	1	3	1	1	3	2	2
03:00	*	*	*	*	*	*	9	4	8	3	6	3	2	6	6	4
04:00	*	*	*	*	*	*	14	6	18	7	3	3	7	1	10	4
05:00	*	*	*	*	*	*	35	18	26	21	7	9	2	3	18	13
06:00	*	*	*	*	*	*	64	52	61	54	26	23	9	5	40	34
07:00	*	*	*	*	*	*	88	61	**115**	68	39	31	26	21	67	45
08:00	*	*	*	*	*	*	**121**	69	96	74	56	41	26	21	75	51
09:00	*	*	*	*	*	*	94	71	90	72	74	67	61	46	80	64
10:00	*	*	*	*	*	*	94	83	106	78	**88**	68	77	58	91	72
11:00	*	*	*	*	*	*	115	**92**	93	**87**	87	**72**	**84**	**70**	**95**	**80**
12:00 PM	*	*	*	*	*	*	108	93	97	121	**122**	103	96	71	106	97
01:00	*	*	*	*	*	*	84	61	121	109	115	103	**105**	**84**	106	89
02:00	*	*	*	*	*	*	98	100	116	95	95	**106**	92	69	100	92
03:00	*	*	*	*	*	*	142	**111**	**172**	130	110	92	88	71	128	**101**
04:00	*	*	*	*	*	*	**156**	106	162	**138**	98	72	99	56	**129**	93
05:00	*	*	*	*	*	*	126	102	136	91	72	60	55	52	97	76
06:00	*	*	*	*	*	*	88	68	81	68	63	31	17	20	62	47
07:00	*	*	*	*	*	*	28	42	41	40	42	22	13	25	31	32
08:00	*	*	*	*	*	*	25	35	13	45	17	15	25	13	20	27
09:00	*	*	*	*	*	*	16	36	13	29	24	31	14	15	17	28
10:00	*	*	*	*	**11**	**13**	8	9	12	17	14	29	25	22	14	18
11:00	*	*	*	*	3	7	1	8	4	7	7	13	4	16	4	10
Lane	0	0	0	0	14	20	1519	1238	1588	1363	1174	1008	934	764	1302	1090
Day	0		0		34		2757		2951		2182		1698		2392	
AM Peak	-	-	-	-	-	-	08:00	11:00	07:00	11:00	10:00	11:00	11:00	11:00	11:00	11:00
Vol.	-	-	-	-	-	-	121	92	115	87	88	72	84	70	95	80
PM Peak	-	-	-	-	22:00	22:00	16:00	15:00	15:00	16:00	12:00	14:00	13:00	13:00	16:00	15:00
Vol.	-	-	-	-	11	13	156	111	172	138	122	106	105	84	129	101

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

Start Time	03-Feb-20 WB	03-Feb-20 EB	Tue WB	Tue EB	Wed WB	Wed EB	Thu WB	Thu EB	Fri WB	Fri EB	Sat WB	Sat EB	Sun WB	Sun EB	Week Average WB	Week Average EB
12:00 AM	2	5	2	6	3	4	2	5	*	*	*	*	*	*	2	5
01:00	4	4	1	2	4	5	0	3	*	*	*	*	*	*	2	4
02:00	2	1	3	6	6	7	6	2	*	*	*	*	*	*	4	4
03:00	4	3	9	1	7	1	4	2	*	*	*	*	*	*	6	2
04:00	13	3	13	8	16	4	18	4	*	*	*	*	*	*	15	5
05:00	23	16	25	18	26	16	29	14	*	*	*	*	*	*	26	16
06:00	75	60	91	75	81	59	74	58	*	*	*	*	*	*	80	63
07:00	89	55	100	76	104	69	98	61	*	*	*	*	*	*	98	65
08:00	**122**	71	**125**	85	**117**	64	**117**	66	*	*	*	*	*	*	**120**	72
09:00	86	79	113	61	105	75	85	57	*	*	*	*	*	*	97	68
10:00	97	**83**	91	78	94	76	76	**78**	*	*	*	*	*	*	90	**79**
11:00	101	77	100	**96**	103	**81**	96	60	*	*	*	*	*	*	100	78
12:00 PM	97	76	111	105	106	85	81	**81**	*	*	*	*	*	*	99	87
01:00	105	89	106	88	118	83	96	71	*	*	*	*	*	*	106	83
02:00	102	115	96	95	96	95	90	78	*	*	*	*	*	*	96	96
03:00	153	**117**	151	123	**155**	**118**	**97**	71	*	*	*	*	*	*	**139**	**107**
04:00	**156**	117	**173**	**124**	135	116	0	0	*	*	*	*	*	*	116	89
05:00	95	84	126	97	125	80	0	0	*	*	*	*	*	*	86	65
06:00	70	60	67	65	69	62	0	0	*	*	*	*	*	*	52	47
07:00	34	29	27	37	37	39	0	0	*	*	*	*	*	*	24	26
08:00	23	30	19	33	25	28	*	*	*	*	*	*	*	*	22	30
09:00	7	20	18	27	11	24	*	*	*	*	*	*	*	*	12	24
10:00	6	9	7	12	11	19	*	*	*	*	*	*	*	*	8	13
11:00	5	7	7	10	7	6	*	*	*	*	*	*	*	*	6	8
Lane	1471	1210	1581	1328	1561	1216	969	711	0	0	0	0	0	0	1406	1136
Day	2681		2909		2777		1680		0		0		0		2542	
AM Peak	08:00	10:00	08:00	11:00	08:00	11:00	08:00	10:00	-	-	-	-	-	-	08:00	10:00
Vol.	122	83	125	96	117	81	117	78	-	-	-	-	-	-	120	79
PM Peak	16:00	15:00	16:00	16:00	15:00	15:00	15:00	12:00	-	-	-	-	-	-	15:00	15:00
Vol.	156	117	173	124	155	118	97	81	-	-	-	-	-	-	139	107

Comb. Total	2681	2909	2811	4437	2951	2182	1698	4934

ADT ADT 2,565 AADT 2,565

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/29/20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	2	9	0	0	0	0	0	0	0	0	0	0	0	0	11
23:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	3	11	0	0	0	0	0	0	0	0	0	0	0	0	14
Percent	21.4%	78.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.	22:00 2	22:00 9													

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/30/20	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
03:00	1	6	0	0	0	0	0	0	0	1	0	0	1	0	9
04:00	1	10	1	0	0	0	0	0	1	0	0	0	1	0	14
05:00	10	22	0	0	0	0	0	0	1	2	0	0	0	0	35
06:00	17	44	0	0	0	1	0	0	0	2	0	0	0	0	64
07:00	21	55	0	0	3	4	1	0	2	2	0	0	0	0	88
08:00	22	82	2	0	1	1	5	0	5	2	0	0	1	0	121
09:00	19	61	1	0	0	2	1	1	2	6	0	0	1	0	94
10:00	22	63	1	0	1	1	2	0	0	2	0	0	2	0	94
11:00	28	72	4	0	0	4	0	0	4	1	0	0	2	0	115
12 PM	25	70	2	0	1	2	1	0	0	5	0	0	2	0	108
13:00	18	58	2	0	0	0	1	0	1	3	0	0	1	0	84
14:00	24	65	1	0	1	2	0	0	3	1	0	0	1	0	98
15:00	34	100	1	0	2	1	0	0	2	1	0	0	1	0	142
16:00	38	110	1	0	2	1	0	0	0	1	0	0	3	0	156
17:00	46	79	0	0	0	0	0	0	0	1	0	0	0	0	126
18:00	26	61	0	0	1	0	0	0	0	0	0	0	0	0	88
19:00	7	21	0	0	0	0	0	0	0	0	0	0	0	0	28
20:00	9	16	0	0	0	0	0	0	0	0	0	0	0	0	25
21:00	4	11	0	0	0	0	0	0	0	1	0	0	0	0	16
22:00	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	377	1013	16	0	12	19	11	1	23	31	0	0	16	0	1519
Percent	24.8%	66.7%	1.1%	0.0%	0.8%	1.3%	0.7%	0.1%	1.5%	2.0%	0.0%	0.0%	1.1%	0.0%	
AM Peak	11:00	08:00	11:00		07:00	07:00	08:00	09:00	08:00	09:00			10:00		
Vol.	28	82	4		3	4	5	1	5	6			2		
PM Peak	17:00	16:00	12:00		15:00	12:00	12:00		14:00	12:00			16:00		
Vol.	46	110	2		2	2	1		3	5			3		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/31/20	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	2	0	0	0	0	0	0	1	0	0	0	0	0	3
02:00	0	2	0	0	0	0	0	0	1	0	0	0	0	0	3
03:00	1	6	0	0	0	0	0	0	0	0	0	0	1	0	8
04:00	3	11	1	0	0	0	0	0	1	1	0	0	1	0	18
05:00	6	18	0	0	0	1	0	0	0	0	0	0	1	0	26
06:00	16	38	0	0	0	2	1	0	0	2	0	0	2	0	61
07:00	25	66	1	0	2	9	4	1	3	1	0	0	3	0	115
08:00	15	68	0	0	0	4	1	2	3	1	0	0	2	0	96
09:00	23	54	1	0	0	7	1	0	2	0	0	0	2	0	90
10:00	23	60	4	0	1	4	7	0	4	0	0	0	3	0	106
11:00	20	62	0	0	1	3	4	0	1	1	0	0	1	0	93
12 PM	13	71	1	0	0	3	2	0	3	2	0	0	2	0	97
13:00	28	81	3	0	2	4	0	0	0	0	0	0	3	0	121
14:00	33	73	2	0	2	1	2	0	2	0	0	0	1	0	116
15:00	42	115	5	0	3	3	0	0	1	2	1	0	0	0	172
16:00	47	113	0	0	1	1	0	0	0	0	0	0	0	0	162
17:00	42	93	0	0	0	0	0	0	1	0	0	0	0	0	136
18:00	23	58	0	0	0	0	0	0	0	0	0	0	0	0	81
19:00	9	31	1	0	0	0	0	0	0	0	0	0	0	0	41
20:00	3	10	0	0	0	0	0	0	0	0	0	0	0	0	13
21:00	2	11	0	0	0	0	0	0	0	0	0	0	0	0	13
22:00	3	9	0	0	0	0	0	0	0	0	0	0	0	0	12
23:00	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	377	1057	19	0	12	42	22	3	23	10	1	0	22	0	1588
Percent	23.7%	66.6%	1.2%	0.0%	0.8%	2.6%	1.4%	0.2%	1.4%	0.6%	0.1%	0.0%	1.4%	0.0%	
AM Peak	07:00	08:00	10:00		07:00	07:00	10:00	08:00	10:00	06:00			07:00		
Vol.	25	68	4		2	9	7	2	4	2			3		
PM Peak	16:00	15:00	15:00		15:00	13:00	12:00		12:00	12:00	15:00		13:00		
Vol.	47	115	5		3	4	2		3	2	1		3		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/01/20	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	2	0	0	0	0	0	0	1	0	0	0	0	0	3
03:00	1	4	0	0	0	0	0	0	1	0	0	0	0	0	6
04:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:00	3	1	0	0	0	0	0	0	0	0	0	0	3	0	7
06:00	9	14	0	0	0	0	1	0	2	0	0	0	0	0	26
07:00	10	25	1	0	0	1	2	0	0	0	0	0	0	0	39
08:00	15	40	0	0	0	1	0	0	0	0	0	0	0	0	56
09:00	16	51	1	0	1	1	0	1	0	0	0	0	3	0	74
10:00	24	63	0	0	0	1	0	0	0	0	0	0	0	0	88
11:00	13	71	0	0	0	2	0	0	0	0	0	0	1	0	87
12 PM	40	79	3	0	0	0	0	0	0	0	0	0	0	0	122
13:00	31	81	1	0	0	1	0	0	0	0	0	0	1	0	115
14:00	28	67	0	0	0	0	0	0	0	0	0	0	0	0	95
15:00	32	78	0	0	0	0	0	0	0	0	0	0	0	0	110
16:00	28	68	1	0	1	0	0	0	0	0	0	0	0	0	98
17:00	13	59	0	0	0	0	0	0	0	0	0	0	0	0	72
18:00	19	44	0	0	0	0	0	0	0	0	0	0	0	0	63
19:00	18	24	0	0	0	0	0	0	0	0	0	0	0	0	42
20:00	5	12	0	0	0	0	0	0	0	0	0	0	0	0	17
21:00	7	17	0	0	0	0	0	0	0	0	0	0	0	0	24
22:00	4	10	0	0	0	0	0	0	0	0	0	0	0	0	14
23:00	3	4	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	321	821	7	0	2	7	3	1	4	0	0	0	8	0	1174
Percent	27.3%	69.9%	0.6%	0.0%	0.2%	0.6%	0.3%	0.1%	0.3%	0.0%	0.0%	0.0%	0.7%	0.0%	
AM Peak	10:00	11:00	07:00		09:00	11:00	07:00	09:00	06:00				05:00		
Vol.	24	71	1		1	2	2	1	2				3		
PM Peak	12:00	13:00	12:00		16:00	13:00							13:00		
Vol.	40	81	3		1	1							1		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/02/20	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
01:00	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
05:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
06:00	1	8	0	0	0	0	0	0	0	0	0	0	0	0	9
07:00	10	16	0	0	0	0	0	0	0	0	0	0	0	0	26
08:00	6	20	0	0	0	0	0	0	0	0	0	0	0	0	26
09:00	9	52	0	0	0	0	0	0	0	0	0	0	0	0	61
10:00	20	57	0	0	0	0	0	0	0	0	0	0	0	0	77
11:00	20	63	1	0	0	0	0	0	0	0	0	0	0	0	84
12 PM	30	66	0	0	0	0	0	0	0	0	0	0	0	0	96
13:00	30	74	1	0	0	0	0	0	0	0	0	0	0	0	105
14:00	30	62	0	0	0	0	0	0	0	0	0	0	0	0	92
15:00	33	54	1	0	0	0	0	0	0	0	0	0	0	0	88
16:00	26	72	1	0	0	0	0	0	0	0	0	0	0	0	99
17:00	18	36	0	0	0	0	0	0	1	0	0	0	0	0	55
18:00	7	10	0	0	0	0	0	0	0	0	0	0	0	0	17
19:00	6	7	0	0	0	0	0	0	0	0	0	0	0	0	13
20:00	13	12	0	0	0	0	0	0	0	0	0	0	0	0	25
21:00	5	9	0	0	0	0	0	0	0	0	0	0	0	0	14
22:00	8	17	0	0	0	0	0	0	0	0	0	0	0	0	25
23:00	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	278	651	4	0	0	0	0	0	1	0	0	0	0	0	934
Percent	29.8%	69.7%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	11:00												
Vol.	20	63	1												
PM Peak	15:00	13:00	13:00						17:00						
Vol.	33	74	1						1						

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/03/20	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	1	2	0	0	0	0	0	0	1	0	0	0	0	0	4
02:00	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
03:00	0	3	0	0	0	0	0	0	0	1	0	0	0	0	4
04:00	2	9	1	0	0	0	0	0	1	0	0	0	0	0	13
05:00	5	18	0	0	0	0	0	0	0	0	0	0	0	0	23
06:00	23	44	0	0	0	2	2	0	2	2	0	0	0	0	75
07:00	20	51	1	0	3	2	3	0	2	1	0	0	6	0	89
08:00	37	76	2	0	0	2	0	0	0	2	0	0	3	0	122
09:00	19	53	0	0	1	4	0	0	4	2	0	0	3	0	86
10:00	29	56	0	0	0	6	2	0	2	1	0	0	1	0	97
11:00	24	61	2	0	1	3	1	0	1	5	0	0	3	0	101
12 PM	24	64	0	0	2	2	1	0	3	0	0	0	1	0	97
13:00	30	65	0	1	0	1	1	1	3	1	0	0	2	0	105
14:00	32	59	4	0	0	4	0	0	0	2	0	0	1	0	102
15:00	49	91	4	1	3	1	0	0	1	3	0	0	0	0	153
16:00	43	109	1	0	2	0	0	0	0	1	0	0	0	0	156
17:00	31	63	0	0	1	0	0	0	0	0	0	0	0	0	95
18:00	14	56	0	0	0	0	0	0	0	0	0	0	0	0	70
19:00	9	25	0	0	0	0	0	0	0	0	0	0	0	0	34
20:00	8	15	0	0	0	0	0	0	0	0	0	0	0	0	23
21:00	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
22:00	4	2	0	0	0	0	0	0	0	0	0	0	0	0	6
23:00	1	4	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	406	935	15	2	13	27	10	1	21	21	0	0	20	0	1471
Percent	27.6%	63.6%	1.0%	0.1%	0.9%	1.8%	0.7%	0.1%	1.4%	1.4%	0.0%	0.0%	1.4%	0.0%	
AM Peak	08:00	08:00	08:00		07:00	10:00	07:00		09:00	11:00			07:00		
Vol.	37	76	2		3	6	3		4	5			6		
PM Peak	15:00	16:00	14:00	13:00	15:00	14:00	12:00	13:00	12:00	15:00			13:00		
Vol.	49	109	4	1	3	4	1	1	3	3			2		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

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CALVERTON,NY
Latitude: 0' 0.0000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/04/20	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	2	0	0	0	0	0	0	1	0	0	0	0	0	3
03:00	0	4	0	0	0	0	0	0	2	0	0	0	3	0	9
04:00	0	9	1	0	0	0	0	0	0	0	0	0	3	0	13
05:00	9	13	0	0	0	1	0	0	0	2	0	0	0	0	25
06:00	24	60	0	0	1	0	0	0	3	3	0	0	0	0	91
07:00	17	67	0	0	3	6	3	1	0	2	0	0	1	0	100
08:00	26	81	1	0	0	4	2	1	4	5	0	0	1	0	125
09:00	25	69	2	0	0	4	1	0	5	3	0	0	4	0	113
10:00	20	56	2	0	1	3	0	0	4	3	0	0	2	0	91
11:00	21	69	4	0	0	2	1	0	1	0	0	0	2	0	100
12 PM	24	77	1	0	1	1	0	0	5	2	0	0	0	0	111
13:00	19	78	0	0	0	2	3	0	2	2	0	0	0	0	106
14:00	30	60	0	0	0	3	0	1	2	0	0	0	0	0	96
15:00	40	97	3	0	3	4	0	1	2	1	0	0	0	0	151
16:00	45	124	1	0	1	0	0	0	1	0	0	0	1	0	173
17:00	33	91	1	0	0	0	0	0	1	0	0	0	0	0	126
18:00	20	47	0	0	0	0	0	0	0	0	0	0	0	0	67
19:00	5	21	1	0	0	0	0	0	0	0	0	0	0	0	27
20:00	6	13	0	0	0	0	0	0	0	0	0	0	0	0	19
21:00	9	9	0	0	0	0	0	0	0	0	0	0	0	0	18
22:00	3	4	0	0	0	0	0	0	0	0	0	0	0	0	7
23:00	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	378	1059	17	0	10	30	10	4	33	23	0	0	17	0	1581
Percent	23.9%	67.0%	1.1%	0.0%	0.6%	1.9%	0.6%	0.3%	2.1%	1.5%	0.0%	0.0%	1.1%	0.0%	
AM Peak	08:00	08:00	11:00		07:00	07:00	07:00	07:00	09:00	08:00			09:00		
Vol.	26	81	4		3	6	3	1	5	5			4		
PM Peak	16:00	16:00	15:00		15:00	15:00	13:00	14:00	12:00	12:00			16:00		
Vol.	45	124	3		3	4	3	1	5	2			1		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/05/20	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	3	0	0	0	1	0	0	0	0	0	0	0	0	4
02:00	0	4	0	0	0	0	0	0	2	0	0	0	0	0	6
03:00	0	6	0	0	0	0	0	0	1	0	0	0	0	0	7
04:00	1	12	1	0	0	0	0	0	0	1	0	0	1	0	16
05:00	3	19	1	0	0	0	0	0	0	3	0	0	0	0	26
06:00	17	55	0	0	0	1	1	0	3	2	0	0	2	0	81
07:00	17	63	2	0	3	3	7	1	2	2	0	0	4	0	104
08:00	22	85	3	0	2	2	0	0	1	1	0	0	1	0	117
09:00	21	69	0	0	2	5	1	0	3	1	0	0	3	0	105
10:00	23	56	2	0	2	3	0	0	5	0	0	0	3	0	94
11:00	15	70	3	0	1	4	2	0	3	2	0	0	3	0	103
12 PM	20	76	1	0	0	2	1	0	3	0	0	0	3	0	106
13:00	26	81	2	0	0	2	1	1	3	2	0	0	0	0	118
14:00	19	62	4	0	0	3	1	0	2	3	0	0	2	0	96
15:00	33	114	3	0	3	0	0	0	1	1	0	0	0	0	155
16:00	40	88	2	0	3	1	0	0	1	0	0	0	0	0	135
17:00	41	81	0	0	3	0	0	0	0	0	0	0	0	0	125
18:00	19	50	0	0	0	0	0	0	0	0	0	0	0	0	69
19:00	11	26	0	0	0	0	0	0	0	0	0	0	0	0	37
20:00	10	15	0	0	0	0	0	0	0	0	0	0	0	0	25
21:00	5	6	0	0	0	0	0	0	0	0	0	0	0	0	11
22:00	2	9	0	0	0	0	0	0	0	0	0	0	0	0	11
23:00	1	5	1	0	0	0	0	0	0	0	0	0	0	0	7
Total	347	1057	25	0	19	27	14	2	30	18	0	0	22	0	1561
Percent	22.2%	67.7%	1.6%	0.0%	1.2%	1.7%	0.9%	0.1%	1.9%	1.2%	0.0%	0.0%	1.4%	0.0%	
AM Peak	10:00	08:00	08:00		07:00	09:00	07:00	07:00	10:00	05:00			07:00		
Vol.	23	85	3		3	5	7	1	5	3			4		
PM Peak	17:00	15:00	14:00		15:00	14:00	12:00	13:00	12:00	14:00			12:00		
Vol.	41	114	4		3	3	1	1	3	3			3		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/06/20	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	4	0	0	0	0	0	0	1	0	0	0	1	0	6
03:00	1	2	0	0	0	0	0	0	0	0	0	0	1	0	4
04:00	0	14	0	0	0	0	0	0	2	1	0	0	1	0	18
05:00	4	23	1	0	0	0	0	0	0	1	0	0	0	0	29
06:00	17	47	1	0	0	1	0	0	0	5	0	0	3	0	74
07:00	13	70	0	0	3	3	2	0	4	0	0	0	3	0	98
08:00	24	86	1	0	0	3	0	0	1	1	0	0	1	0	117
09:00	16	55	3	0	0	0	0	0	5	3	0	0	3	0	85
10:00	21	47	2	0	0	1	1	0	1	1	0	0	2	0	76
11:00	16	72	2	0	0	0	1	0	0	2	0	0	3	0	96
12 PM	12	59	2	0	1	0	0	0	2	3	0	0	2	0	81
13:00	22	70	0	0	0	1	0	1	1	0	0	0	1	0	96
14:00	17	70	0	0	0	0	0	0	2	0	0	0	1	0	90
15:00	25	64	3	0	0	1	0	0	3	1	0	0	0	0	97
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	188	685	15	0	4	10	4	1	22	18	0	0	22	0	969
Percent	19.4%	70.7%	1.5%	0.0%	0.4%	1.0%	0.4%	0.1%	2.3%	1.9%	0.0%	0.0%	2.3%	0.0%	
AM Peak	08:00	08:00	09:00		07:00	07:00	07:00		09:00	06:00			06:00		
Vol.	24	86	3		3	3	2		5	5			3		
PM Peak	15:00	13:00	15:00		12:00	13:00		13:00	15:00	12:00			12:00		
Vol.	25	70	3		1	1		1	3	3			2		
Grand Total	2675	7289	118	2	72	162	74	13	157	121	1	0	127	0	10811
Percent	24.7%	67.4%	1.1%	0.0%	0.7%	1.5%	0.7%	0.1%	1.5%	1.1%	0.0%	0.0%	1.2%	0.0%	

TRAFFIC DATABANK LLC
716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/29/20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	5	8	0	0	0	0	0	0	0	0	0	0	0	0	13
23:00	3	4	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	8	12	0	0	0	0	0	0	0	0	0	0	0	0	20
Percent	40.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.	22:00 5	22:00 8													

TRAFFIC DATABANK LLC

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MT VERNON,NY,10550

Site Code:
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MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/30/20	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
01:00	2	3	0	0	0	0	0	0	0	0	0	0	0	0	5
02:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
03:00	1	2	0	0	0	0	0	0	1	0	0	0	0	0	4
04:00	0	5	0	0	0	0	0	0	1	0	0	0	0	0	6
05:00	7	9	0	0	0	1	0	0	1	0	0	0	0	0	18
06:00	22	22	0	0	2	1	0	0	2	0	0	0	3	0	52
07:00	26	25	0	0	4	3	1	0	1	1	0	0	0	0	61
08:00	22	35	2	0	3	1	1	0	1	2	0	0	2	0	69
09:00	22	37	2	0	0	5	0	0	3	1	0	0	1	0	71
10:00	22	46	2	0	0	3	0	0	7	0	0	0	3	0	83
11:00	40	40	2	0	1	3	0	0	1	3	0	0	2	0	92
12 PM	35	48	1	0	0	1	0	0	2	2	0	0	4	0	93
13:00	26	26	1	0	0	2	0	0	3	1	0	0	2	0	61
14:00	38	50	2	0	0	6	1	0	2	0	0	0	1	0	100
15:00	40	61	2	0	0	1	0	0	2	0	0	0	5	0	111
16:00	43	55	0	0	2	3	0	0	1	0	0	0	2	0	106
17:00	45	55	1	0	0	0	0	0	0	0	0	0	1	0	102
18:00	37	31	0	0	0	0	0	0	0	0	0	0	0	0	68
19:00	17	24	0	0	0	0	0	0	1	0	0	0	0	0	42
20:00	14	21	0	0	0	0	0	0	0	0	0	0	0	0	35
21:00	21	15	0	0	0	0	0	0	0	0	0	0	0	0	36
22:00	3	6	0	0	0	0	0	0	0	0	0	0	0	0	9
23:00	4	4	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	491	622	15	0	12	30	3	0	29	10	0	0	26	0	1238
Percent	39.7%	50.2%	1.2%	0.0%	1.0%	2.4%	0.2%	0.0%	2.3%	0.8%	0.0%	0.0%	2.1%	0.0%	
AM Peak	11:00	10:00	08:00		07:00	09:00	07:00		10:00	11:00			06:00		
Vol.	40	46	2		4	5	1		7	3			3		
PM Peak	17:00	15:00	14:00		16:00	14:00	14:00		13:00	12:00			15:00		
Vol.	45	61	2		2	6	1		3	2			5		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
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MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/31/20	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
01:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4
02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	1	1	0	0	0	0	0	0	1	0	0	0	0	0	3
04:00	1	5	0	0	0	0	0	0	0	1	0	0	0	0	7
05:00	7	11	0	0	0	1	0	0	2	0	0	0	0	0	21
06:00	17	27	0	0	4	2	1	0	1	0	0	0	2	0	54
07:00	28	35	1	0	1	0	0	0	0	1	0	0	2	0	68
08:00	22	38	1	0	5	1	1	0	4	0	0	0	2	0	74
09:00	26	35	1	0	0	8	0	0	0	0	0	0	2	0	72
10:00	22	35	4	0	1	8	1	0	2	1	0	0	4	0	78
11:00	26	43	2	0	3	6	0	0	3	0	0	0	4	0	87
12 PM	42	65	0	0	1	8	1	0	1	1	0	0	2	0	121
13:00	31	63	1	0	2	5	0	2	2	0	0	0	3	0	109
14:00	39	50	1	0	0	1	1	1	0	1	0	0	1	0	95
15:00	51	73	1	0	0	3	0	0	1	0	0	0	1	0	130
16:00	66	66	0	0	2	2	0	0	0	0	0	0	2	0	138
17:00	44	46	0	0	0	1	0	0	0	0	0	0	0	0	91
18:00	34	33	0	0	0	1	0	0	0	0	0	0	0	0	68
19:00	20	20	0	0	0	0	0	0	0	0	0	0	0	0	40
20:00	21	24	0	0	0	0	0	0	0	0	0	0	0	0	45
21:00	17	12	0	0	0	0	0	0	0	0	0	0	0	0	29
22:00	9	8	0	0	0	0	0	0	0	0	0	0	0	0	17
23:00	1	6	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	529	701	12	0	19	47	5	3	17	5	0	0	25	0	1363
Percent	38.8%	51.4%	0.9%	0.0%	1.4%	3.4%	0.4%	0.2%	1.2%	0.4%	0.0%	0.0%	1.8%	0.0%	
AM Peak	07:00	11:00	10:00		08:00	09:00	06:00		08:00	04:00			10:00		
Vol.	28	43	4		5	8	1		4	1			4		
PM Peak	16:00	15:00	13:00		13:00	12:00	12:00	13:00	13:00	12:00			13:00		
Vol.	66	73	1		2	8	1	2	2	1			3		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
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CALVERTON,NY
Latitude: 0' 0.0000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/01/20	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8
01:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
04:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
05:00	3	6	0	0	0	0	0	0	0	0	0	0	0	0	9
06:00	10	12	0	0	0	0	0	0	1	0	0	0	0	0	23
07:00	13	16	1	0	0	0	0	0	1	0	0	0	0	0	31
08:00	12	22	1	0	1	0	0	0	1	1	0	0	3	0	41
09:00	15	44	0	0	1	5	0	1	1	0	0	0	0	0	67
10:00	33	33	1	0	0	1	0	0	0	0	0	0	0	0	68
11:00	29	42	0	0	0	0	0	0	0	0	0	0	1	0	72
12 PM	37	61	1	0	1	1	0	0	2	0	0	0	0	0	103
13:00	42	60	0	0	0	1	0	0	0	0	0	0	0	0	103
14:00	60	45	0	0	1	0	0	0	0	0	0	0	0	0	106
15:00	38	54	0	0	0	0	0	0	0	0	0	0	0	0	92
16:00	35	36	0	0	1	0	0	0	0	0	0	0	0	0	72
17:00	30	30	0	0	0	0	0	0	0	0	0	0	0	0	60
18:00	12	19	0	0	0	0	0	0	0	0	0	0	0	0	31
19:00	9	13	0	0	0	0	0	0	0	0	0	0	0	0	22
20:00	8	7	0	0	0	0	0	0	0	0	0	0	0	0	15
21:00	11	20	0	0	0	0	0	0	0	0	0	0	0	0	31
22:00	14	15	0	0	0	0	0	0	0	0	0	0	0	0	29
23:00	7	6	0	0	0	0	0	0	0	0	0	0	0	0	13
Total	424	555	4	0	5	8	0	1	6	1	0	0	4	0	1008
Percent	42.1%	55.1%	0.4%	0.0%	0.5%	0.8%	0.0%	0.1%	0.6%	0.1%	0.0%	0.0%	0.4%	0.0%	
AM Peak	10:00	09:00	07:00		08:00	09:00		09:00	06:00	08:00			08:00		
Vol.	33	44	1		1	5		1	1	1			3		
PM Peak	14:00	12:00	12:00		12:00	12:00			12:00						
Vol.	60	61	1		1	1			2						

TRAFFIC DATABANK LLC

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Site Code:
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CALVERTON,NY
Latitude: 0' 0.0000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/02/20	7	5	0	0	0	0	0	0	0	0	0	0	0	0	12
01:00	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
02:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
03:00	4	2	0	0	0	0	0	0	0	0	0	0	0	0	6
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
06:00	1	4	0	0	0	0	0	0	0	0	0	0	0	0	5
07:00	4	17	0	0	0	0	0	0	0	0	0	0	0	0	21
08:00	9	12	0	0	0	0	0	0	0	0	0	0	0	0	21
09:00	18	28	0	0	0	0	0	0	0	0	0	0	0	0	46
10:00	26	32	0	0	0	0	0	0	0	0	0	0	0	0	58
11:00	29	41	0	0	0	0	0	0	0	0	0	0	0	0	70
12 PM	32	39	0	0	0	0	0	0	0	0	0	0	0	0	71
13:00	41	43	0	0	0	0	0	0	0	0	0	0	0	0	84
14:00	28	41	0	0	0	0	0	0	0	0	0	0	0	0	69
15:00	36	35	0	0	0	0	0	0	0	0	0	0	0	0	71
16:00	28	28	0	0	0	0	0	0	0	0	0	0	0	0	56
17:00	27	24	0	0	0	0	1	0	0	0	0	0	0	0	52
18:00	10	10	0	0	0	0	0	0	0	0	0	0	0	0	20
19:00	13	12	0	0	0	0	0	0	0	0	0	0	0	0	25
20:00	6	7	0	0	0	0	0	0	0	0	0	0	0	0	13
21:00	6	9	0	0	0	0	0	0	0	0	0	0	0	0	15
22:00	10	12	0	0	0	0	0	0	0	0	0	0	0	0	22
23:00	10	6	0	0	0	0	0	0	0	0	0	0	0	0	16
Total	350	413	0	0	0	0	1	0	0	0	0	0	0	0	764
Percent	45.8%	54.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00													
Vol.	29	41													
PM Peak	13:00	13:00					17:00								
Vol.	41	43					1								

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

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Latitude: 0' 0.0000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/03/20	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
01:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4
02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:00	3	10	0	0	0	0	0	0	1	1	0	0	1	0	16
06:00	21	33	0	0	4	0	0	0	2	0	0	0	0	0	60
07:00	18	29	0	0	2	3	0	0	0	2	0	0	1	0	55
08:00	17	38	4	0	5	1	0	0	5	0	0	0	1	0	71
09:00	22	51	1	0	1	0	0	0	1	1	0	0	2	0	79
10:00	24	47	0	0	1	7	0	1	2	0	0	0	1	0	83
11:00	25	40	0	0	2	1	0	1	3	3	0	0	2	0	77
12 PM	27	40	2	0	0	3	0	0	1	1	0	0	2	0	76
13:00	30	47	2	0	1	5	1	0	0	1	0	0	2	0	89
14:00	44	59	3	0	1	5	0	0	1	0	0	0	2	0	115
15:00	48	61	1	0	0	3	0	0	1	1	0	0	2	0	117
16:00	47	64	0	0	1	4	0	0	0	0	0	0	1	0	117
17:00	46	38	0	0	0	0	0	0	0	0	0	0	0	0	84
18:00	26	33	0	0	0	0	0	0	1	0	0	0	0	0	60
19:00	16	13	0	0	0	0	0	0	0	0	0	0	0	0	29
20:00	12	18	0	0	0	0	0	0	0	0	0	0	0	0	30
21:00	10	10	0	0	0	0	0	0	0	0	0	0	0	0	20
22:00	3	6	0	0	0	0	0	0	0	0	0	0	0	0	9
23:00	3	4	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	448	651	13	0	18	32	1	2	18	10	0	0	17	0	1210
Percent	37.0%	53.8%	1.1%	0.0%	1.5%	2.6%	0.1%	0.2%	1.5%	0.8%	0.0%	0.0%	1.4%	0.0%	
AM Peak	11:00	09:00	08:00		08:00	10:00		10:00	08:00	11:00			09:00		
Vol.	25	51	4		5	7		1	5	3			2		
PM Peak	15:00	16:00	14:00		13:00	13:00	13:00		12:00	12:00			12:00		
Vol.	48	64	3		1	5	1		1	1			2		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/04/20	2	4	0	0	0	0	0	0	0	0	0	0	0	0	6
01:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
02:00	1	5	0	0	0	0	0	0	0	0	0	0	0	0	6
03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	7	0	0	0	0	0	0	1	0	0	0	0	0	8
05:00	7	8	0	0	0	1	0	1	0	1	0	0	0	0	18
06:00	26	36	1	0	3	1	0	0	4	1	0	0	3	0	75
07:00	28	42	0	0	2	1	1	0	0	1	0	0	1	0	76
08:00	24	40	2	0	7	4	0	1	3	2	0	0	2	0	85
09:00	17	37	2	0	1	1	0	0	0	1	0	0	2	0	61
10:00	23	33	3	0	0	8	0	0	6	2	0	0	3	0	78
11:00	22	61	3	0	2	5	0	0	2	1	0	0	0	0	96
12 PM	38	58	1	0	0	1	1	0	5	0	0	0	1	0	105
13:00	35	46	1	0	1	1	0	0	2	1	0	0	1	0	88
14:00	34	50	2	0	0	8	0	0	1	0	0	0	0	0	95
15:00	46	65	1	0	0	5	0	0	3	0	0	0	3	0	123
16:00	53	64	0	0	2	4	0	0	0	1	0	0	0	0	124
17:00	43	54	0	0	0	0	0	0	0	0	0	0	0	0	97
18:00	26	39	0	0	0	0	0	0	0	0	0	0	0	0	65
19:00	14	23	0	0	0	0	0	0	0	0	0	0	0	0	37
20:00	20	13	0	0	0	0	0	0	0	0	0	0	0	0	33
21:00	15	12	0	0	0	0	0	0	0	0	0	0	0	0	27
22:00	9	3	0	0	0	0	0	0	0	0	0	0	0	0	12
23:00	6	4	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	491	705	16	0	18	40	2	2	27	11	0	0	16	0	1328
Percent	37.0%	53.1%	1.2%	0.0%	1.4%	3.0%	0.2%	0.2%	2.0%	0.8%	0.0%	0.0%	1.2%	0.0%	
AM Peak	07:00	11:00	10:00		08:00	10:00	07:00	05:00	10:00	08:00			06:00		
Vol.	28	61	3		7	8	1	1	6	2			3		
PM Peak	16:00	15:00	14:00		16:00	14:00	12:00		12:00	13:00			15:00		
Vol.	53	65	2		2	8	1		5	1			3		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/05/20	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
01:00	1	3	0	0	0	1	0	0	0	0	0	0	0	0	5
02:00	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
05:00	4	6	0	0	0	1	0	0	1	1	0	0	3	0	16
06:00	18	35	0	0	4	2	0	0	0	0	0	0	0	0	59
07:00	28	36	0	0	2	1	0	0	0	2	0	0	0	0	69
08:00	21	26	2	0	6	1	0	1	3	2	0	0	2	0	64
09:00	20	43	4	0	1	3	0	0	0	2	0	0	2	0	75
10:00	24	39	2	0	1	5	0	0	1	0	0	0	4	0	76
11:00	28	41	0	0	3	3	0	0	1	1	0	0	4	0	81
12 PM	30	42	3	0	0	3	1	0	3	0	0	0	3	0	85
13:00	30	44	1	0	1	3	0	0	0	1	0	0	3	0	83
14:00	34	51	1	0	1	5	0	0	0	0	0	0	3	0	95
15:00	56	54	1	0	0	1	0	0	1	3	0	0	2	0	118
16:00	42	64	1	0	2	5	1	0	0	0	0	0	1	0	116
17:00	40	40	0	0	0	0	0	0	0	0	0	0	0	0	80
18:00	31	31	0	0	0	0	0	0	0	0	0	0	0	0	62
19:00	11	28	0	0	0	0	0	0	0	0	0	0	0	0	39
20:00	10	18	0	0	0	0	0	0	0	0	0	0	0	0	28
21:00	12	11	0	0	0	0	0	0	1	0	0	0	0	0	24
22:00	9	9	1	0	0	0	0	0	0	0	0	0	0	0	19
23:00	2	4	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	456	636	16	0	21	34	2	1	11	12	0	0	27	0	1216
Percent	37.5%	52.3%	1.3%	0.0%	1.7%	2.8%	0.2%	0.1%	0.9%	1.0%	0.0%	0.0%	2.2%	0.0%	
AM Peak	07:00	09:00	09:00		08:00	10:00		08:00	08:00	07:00			10:00		
Vol.	28	43	4		6	5		1	3	2			4		
PM Peak	15:00	16:00	12:00		16:00	14:00	12:00		12:00	15:00			12:00		
Vol.	56	64	3		2	5	1		3	3			3		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
MANOR RD W OF TWOMEY AVE
CALVERTON,NY
Latitude: 0' 0.0000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/06/20	3	2	0	0	0	0	0	0	0	0	0	0	0	0	5
01:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
02:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	3	0	0	0	0	0	0	0	0	0	0	1	0	4
05:00	3	7	1	0	0	1	0	0	0	1	0	0	1	0	14
06:00	15	35	0	0	4	1	0	0	2	1	0	0	0	0	58
07:00	24	30	0	0	1	1	0	1	3	1	0	0	0	0	61
08:00	18	38	0	0	4	1	0	0	2	0	0	0	3	0	66
09:00	16	30	0	0	0	4	1	0	2	2	0	0	2	0	57
10:00	29	37	2	0	2	3	0	0	1	2	0	0	2	0	78
11:00	21	30	0	0	1	3	0	0	1	1	0	0	3	0	60
12 PM	30	42	1	0	0	2	1	1	1	0	0	0	3	0	81
13:00	23	38	3	0	0	2	0	0	2	1	0	0	2	0	71
14:00	24	44	2	0	0	0	0	1	2	0	0	0	5	0	78
15:00	30	37	1	0	0	0	0	0	0	1	0	0	2	0	71
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	239	377	10	0	12	18	2	3	16	10	0	0	24	0	711
Percent	33.6%	53.0%	1.4%	0.0%	1.7%	2.5%	0.3%	0.4%	2.3%	1.4%	0.0%	0.0%	3.4%	0.0%	
AM Peak	10:00	08:00	10:00		06:00	09:00	09:00	07:00	07:00	09:00			08:00		
Vol.	29	38	2		4	4	1	1	3	2			3		
PM Peak	12:00	14:00	13:00			12:00	12:00	12:00	13:00	13:00			14:00		
Vol.	30	44	3			2	1	1	2	1			5		
Grand Total	3436	4672	86	0	105	209	16	12	124	59	0	0	139	0	8858
Percent	38.8%	52.7%	1.0%	0.0%	1.2%	2.4%	0.2%	0.1%	1.4%	0.7%	0.0%	0.0%	1.6%	0.0%	

NELSON & POPE

AM PEAK HOUR
Project Name: Breezy Hill
N&P Project No. 17060

GROWTH FACTOR: 1.30%
NO. OF YEARS: 2
GROWTH RATE: 1.027

LOCATION	DIR	MVMT	EXISTING VOLUMES	NO BUILD VOLUME
	NB	LEFT	1	2
MIDDLE COUNTRY ROAD		THROUGH	1	2
AT		RIGHT	0	0
MANOR ROAD	SB	LEFT	72	74
		THROUGH	1	2
1		RIGHT	36	37
	EB	LEFT	39	41
		THROUGH	599	616
		RIGHT	7	8
	WB	LEFT	11	12
		THROUGH	284	292
		RIGHT	28	29
	NB	LEFT	2	3
MANOR ROAD		THROUGH	2	3
AT		RIGHT	4	5
TWOMEY AVENUE	SB	LEFT	4	5
		THROUGH	0	0
2		RIGHT	48	50
	EB	LEFT	23	24
		THROUGH	37	38
		RIGHT	6	7
	WB	LEFT	4	5
		THROUGH	69	71
		RIGHT	5	6
	NB	LEFT	15	16
		THROUGH	1	2
MANOR ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
MIDDLE ROAD		THROUGH	3	4
		RIGHT	59	61
3	EB	LEFT	38	40
		THROUGH	0	0
		RIGHT	9	10
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	NB	LEFT	0	0
		THROUGH	0	0
MANOR ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
SITE ACCESS		THROUGH	0	0
		RIGHT	0	0
4	EB	LEFT	0	0
		THROUGH	45	47
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	79	82
		RIGHT	0	0
	NB	LEFT	0	0
		THROUGH	16	17
MIDDLE ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
SITE ACCESS		THROUGH	12	13
		RIGHT	0	0
5	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0

NELSON & POPE

AM PEAK HOUR
Project Name: Breezy Hill
N&P Project No. 17060

			TRUCKS			EMPLOYEES			
			PASS-BY% 0%			PASS-BY% 0%			SUBTOTAL TRAFFIC GENERATED
					VOL			VOL	
				ENTER	5		ENTER	4	
				EXIT	5		EXIT	1	
				TOTAL	10		TOTAL	5	
LOCATION	**DIR**	**MVMT**	**%EN**	**%EX**	**1 VOL**	**%EN**	**%EX**	**1 VOL**	SUBTOTAL VOL
	NB	LEFT			0			0	0
MIDDLE COUNTRY ROAD		THROUGH			0			0	0
AT		RIGHT			0			0	0
MANOR ROAD	SB	LEFT		80	4		70	0	4
		THROUGH			0			0	0
1		RIGHT		20	1		30	0	1
	EB	LEFT	20		1	30		1	2
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT	80		4	70		2	6
					0			0	0
	NB	LEFT			0			0	0
MANOR ROAD		THROUGH			0			0	0
AT		RIGHT			0			0	0
TWOMEY AVENUE	SB	LEFT			0			0	0
		THROUGH			0			0	0
2		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH	100		5	100		4	9
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH		100	5		100	1	6
		RIGHT			0			0	0
					0			0	0
	NB	LEFT			0		100	1	1
		THROUGH			0			0	0
MANOR ROAD		RIGHT			0			0	0
AT	SB	LEFT			0			0	0
MIDDLE ROAD		THROUGH			0			0	0
		RIGHT			0			0	0
3	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0	100		4	4
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
					0			0	0
	NB	LEFT		100	5			0	5
		THROUGH			0			0	0
MANOR ROAD		RIGHT			0			0	0
AT	SB	LEFT			0			0	0
SITE ACCESS		THROUGH			0			0	0
		RIGHT			0			0	0
4	EB	LEFT			0			0	0
		THROUGH			0	100		4	4
		RIGHT	100		5			0	5
	WB	LEFT			0			0	0
		THROUGH			0		100	1	1
		RIGHT			0			0	0
	NB	LEFT			0			0	0
		THROUGH			0			0	0
MIDDLE ROAD		RIGHT			0			0	0
AT	SB	LEFT			0			0	0
SITE ACCESS		THROUGH			0			0	0
		RIGHT			0	100		4	4
5	EB	LEFT			0		100	1	1
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0

NELSON & POPE

AM PEAK HOUR
Project Name: Breezy Hill
N&P Project No. 17060

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
	NB	LEFT	2	0	2
MIDDLE COUNTRY ROAD		THROUGH	2	0	2
AT		RIGHT	0	0	0
MANOR ROAD	SB	LEFT	74	4	78
		THROUGH	2	0	2
1		RIGHT	37	1	38
	EB	LEFT	41	2	43
		THROUGH	616	0	616
		RIGHT	8	0	8
	WB	LEFT	12	0	12
		THROUGH	292	0	292
		RIGHT	29	6	35
	NB	LEFT	3	0	3
MANOR ROAD		THROUGH	3	0	3
AT		RIGHT	5	0	5
TWOMEY AVENUE	SB	LEFT	5	0	5
		THROUGH	0	0	0
2		RIGHT	48	0	48
	EB	LEFT	24	0	24
		THROUGH	38	9	47
		RIGHT	7	0	7
	WB	LEFT	5	0	5
		THROUGH	71	6	77
		RIGHT	6	0	6
	NB	LEFT	16	1	17
		THROUGH	2	0	2
MANOR ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
MIDDLE ROAD		THROUGH	4	0	4
		RIGHT	61	0	61
3	EB	LEFT	40	0	40
		THROUGH	0	0	0
		RIGHT	10	4	14
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	NB	LEFT	0	5	5
		THROUGH	0	0	0
MANOR ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
SITE ACCESS		THROUGH	0	0	0
		RIGHT	0	0	0
4	EB	LEFT	0	0	0
		THROUGH	47	4	51
		RIGHT	0	5	5
	WB	LEFT	0	0	0
		THROUGH	82	1	83
		RIGHT	0	0	0
	NB	LEFT	0	0	0
		THROUGH	17	0	17
MIDDLE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
SITE ACCESS		THROUGH	13	0	13
		RIGHT	0	4	4
5	EB	LEFT	0	1	1
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0

NELSON & POPE

PM PEAK HOUR
Project Name: Breezy Hill
N&P Project No. 17060

GROWTH FACTOR: 1.30%
NO. OF YEARS: 2
GROWTH RATE: 1.027

LOCATION	DIR	MVMT	EXISTING VOLUMES	AMBIENT NO BUILD VOLUME
	NB	LEFT	2	3
MIDDLE COUNTRY ROAD		THROUGH	0	0
AT		RIGHT	6	7
MANOR ROAD	SB	LEFT	92	95
		THROUGH	0	0
1		RIGHT	66	68
	EB	LEFT	49	51
		THROUGH	413	425
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	629	646
		RIGHT	62	64
	NB	LEFT	10	11
MANOR ROAD		THROUGH	2	3
AT		RIGHT	4	5
TWOMEY AVENUE	SB	LEFT	4	5
		THROUGH	1	2
2		RIGHT	30	31
	EB	LEFT	47	49
		THROUGH	62	64
		RIGHT	3	4
	WB	LEFT	2	3
		THROUGH	119	123
		RIGHT	6	7
	NB	LEFT	11	12
		THROUGH	7	8
MANOR ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
MIDDLE ROAD		THROUGH	5	6
		RIGHT	116	120
3	EB	LEFT	62	64
		THROUGH	0	0
		RIGHT	6	7
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	NB	LEFT	0	0
		THROUGH	0	0
MANOR ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
SITE ACCESS		THROUGH	0	0
		RIGHT	0	0
4	EB	LEFT	0	0
		THROUGH	70	72
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	127	131
		RIGHT	0	0
	NB	LEFT	0	0
		THROUGH	18	19
MIDDLE ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
SITE ACCESS		THROUGH	11	12
		RIGHT	0	0
5	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0

NELSON & POPE

PM PEAK HOUR
Project Name: Breezy Hill
N&P Project No. 17060

	TRUCKS			EMPLOYEES			
	PASS-BY% 0%			PASS-BY% 0%			SUBTOTAL TRAFFIC GENERATED
			VOL			VOL	
		ENTER	5		ENTER	1	
		EXIT	5		EXIT	4	
		TOTAL	10		TOTAL	5	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	1 VOL	SUBTOTAL VOL
	NB	LEFT			0			0	0
MIDDLE COUNTRY ROAD		THROUGH			0			0	0
AT		RIGHT			0			0	0
MANOR ROAD	SB	LEFT		80	4		70	2	6
		THROUGH			0			0	0
1		RIGHT		20	1		30	1	2
	EB	LEFT	20		1	30		0	1
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT	80		4	70		0	4
					0			0	0
	NB	LEFT			0			0	0
MANOR ROAD		THROUGH			0			0	0
AT		RIGHT			0			0	0
TWOMEY AVENUE	SB	LEFT			0			0	0
		THROUGH			0			0	0
2		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH	100		5	100		1	6
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH		100	5		100	4	9
		RIGHT			0			0	0
					0			0	0
	NB	LEFT			0		100	4	4
		THROUGH			0			0	0
MANOR ROAD		RIGHT			0			0	0
AT	SB	LEFT			0			0	0
MIDDLE ROAD		THROUGH			0			0	0
		RIGHT			0			0	0
3	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0	100		1	1
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
					0			0	0
	NB	LEFT		100	5			0	5
		THROUGH			0			0	0
MANOR ROAD		RIGHT			0			0	0
AT	SB	LEFT			0			0	0
SITE ACCESS		THROUGH			0			0	0
		RIGHT			0			0	0
4	EB	LEFT			0			0	0
		THROUGH			0	100		1	1
		RIGHT	100		5			0	5
	WB	LEFT			0			0	0
		THROUGH			0		100	4	4
		RIGHT			0			0	0
	NB	LEFT			0			0	0
		THROUGH			0			0	0
MIDDLE ROAD		RIGHT			0			0	0
AT	SB	LEFT			0			0	0
SITE ACCESS		THROUGH			0			0	0
		RIGHT			0	100		1	1
5	EB	LEFT			0		100	4	4
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0

NELSON & POPE

PM PEAK HOUR
Project Name: Breezy Hill
N&P Project No. 17060

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
	NB	LEFT	3	0	3
MIDDLE COUNTRY ROAD		THROUGH	0	0	0
AT		RIGHT	7	0	7
MANOR ROAD	SB	LEFT	95	6	101
		THROUGH	0	0	0
1		RIGHT	68	2	70
	EB	LEFT	51	1	52
		THROUGH	425	0	425
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	646	0	646
		RIGHT	64	4	68
	NB	LEFT	11	0	11
MANOR ROAD		THROUGH	3	0	3
AT		RIGHT	5	0	5
TWOMEY AVENUE	SB	LEFT	5	0	5
		THROUGH	2	0	2
2		RIGHT	48	0	48
	EB	LEFT	49	0	49
		THROUGH	64	6	70
		RIGHT	4	0	4
	WB	LEFT	3	0	3
		THROUGH	123	9	132
		RIGHT	7	0	7
	NB	LEFT	12	4	16
		THROUGH	8	0	8
MANOR ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
MIDDLE ROAD		THROUGH	6	0	6
		RIGHT	120	0	120
3	EB	LEFT	64	0	64
		THROUGH	0	0	0
		RIGHT	7	1	8
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	NB	LEFT	0	5	5
		THROUGH	0	0	0
MANOR ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
SITE ACCESS		THROUGH	0	0	0
		RIGHT	0	0	0
4	EB	LEFT	0	0	0
		THROUGH	72	1	73
		RIGHT	0	5	5
	WB	LEFT	0	0	0
		THROUGH	131	4	135
		RIGHT	0	0	0
	NB	LEFT	0	0	0
		THROUGH	19	0	19
MIDDLE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
SITE ACCESS		THROUGH	12	0	12
		RIGHT	0	1	1
5	EB	LEFT	0	4	4
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0

NELSON & POPE

SATURDAY PEAK HOUR
Project Name: Breezy Hill
N&P Project No. 17060

GROWTH FACTOR: 1.30%
NO. OF YEARS: 2
GROWTH RATE: 1.027

LOCATION	DIR	MVMT	EXISTING VOLUMES	NO BUILD VOLUME
	NB	LEFT	0	0
MIDDLE COUNTRY ROAD		THROUGH	0	0
AT		RIGHT	2	3
MANOR ROAD	SB	LEFT	65	67
		THROUGH	0	0
1		RIGHT	57	59
	EB	LEFT	39	41
		THROUGH	573	589
		RIGHT	0	0
	WB	LEFT	1	2
		THROUGH	530	545
		RIGHT	65	67
	NB	LEFT	11	12
MANOR ROAD		THROUGH	0	0
AT		RIGHT	6	7
TWOMEY AVENUE	SB	LEFT	6	7
		THROUGH	1	2
2		RIGHT	38	40
	EB	LEFT	45	47
		THROUGH	61	63
		RIGHT	3	4
	WB	LEFT	3	4
		THROUGH	83	86
		RIGHT	9	10
	NB	LEFT	8	9
		THROUGH	2	3
MANOR ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
MIDDLE ROAD		THROUGH	3	4
		RIGHT	85	88
3	EB	LEFT	69	71
		THROUGH	0	0
		RIGHT	2	3
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	NB	LEFT	0	0
		THROUGH	0	0
MANOR ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
SITE ACCESS		THROUGH	0	0
		RIGHT	0	0
4	EB	LEFT	0	0
		THROUGH	73	75
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	95	98
		RIGHT	0	0
	NB	LEFT	0	0
		THROUGH	10	11
MIDDLE ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
SITE ACCESS		THROUGH	5	6
		RIGHT	0	0
5	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0

NELSON & POPE

SATURDAY PEAK HOUR
Project Name: Breezy Hill
N&P Project No. 17060

			TRUCKS			EMPLOYEES			
			PASS-BY% 0%			PASS-BY% 0%			SUBTOTAL TRAFFIC GENERATED
					VOL			VOL	
				ENTER	5		ENTER	4	
				EXIT	5		EXIT	4	
				TOTAL	10		TOTAL	8	
LOCATION	**DIR**	**MVMT**	**%EN**	**%EX**	**1 VOL**	**%EN**	**%EX**	**1 VOL**	SUBTOTAL VOL
	NB	LEFT			0			0	0
MIDDLE COUNTRY ROAD		THROUGH			0			0	0
AT		RIGHT			0			0	0
MANOR ROAD	SB	LEFT		80	4		70	2	6
		THROUGH			0			0	0
1		RIGHT		20	1		30	1	2
	EB	LEFT	20		1	30		1	2
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT	80		4	70		2	6
					0			0	0
	NB	LEFT			0			0	0
MANOR ROAD		THROUGH			0			0	0
AT		RIGHT			0			0	0
TWOMEY AVENUE	SB	LEFT			0			0	0
		THROUGH			0			0	0
2		RIGHT			0			0	0
	EB	LEFT			0			0	0
		THROUGH	100		5	100		4	9
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH		100	5		100	4	9
		RIGHT			0			0	0
					0			0	0
	NB	LEFT			0		100	4	4
		THROUGH			0			0	0
MANOR ROAD		RIGHT			0			0	0
AT	SB	LEFT			0			0	0
MIDDLE ROAD		THROUGH			0			0	0
		RIGHT			0			0	0
3	EB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0	100		4	4
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0
					0			0	0
	NB	LEFT		100	5			0	5
		THROUGH			0			0	0
MANOR ROAD		RIGHT			0			0	0
AT	SB	LEFT			0			0	0
SITE ACCESS		THROUGH			0			0	0
		RIGHT			0			0	0
4	EB	LEFT			0			0	0
		THROUGH			0	100		4	4
		RIGHT	100		5			0	5
	WB	LEFT			0			0	0
		THROUGH			0		100	4	4
		RIGHT			0			0	0
	NB	LEFT			0			0	0
		THROUGH			0			0	0
MIDDLE ROAD		RIGHT			0			0	0
AT	SB	LEFT			0			0	0
SITE ACCESS		THROUGH			0			0	0
		RIGHT			0	100		4	4
5	EB	LEFT			0		100	4	4
		THROUGH			0			0	0
		RIGHT			0			0	0
	WB	LEFT			0			0	0
		THROUGH			0			0	0
		RIGHT			0			0	0

NELSON & POPE

SATURDAY PEAK HOUR
Project Name: Breezy Hill
N&P Project No. 17060

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
	NB	LEFT	0	0	0
MIDDLE COUNTRY ROAD		THROUGH	0	0	0
AT		RIGHT	3	0	3
MANOR ROAD	SB	LEFT	67	6	73
		THROUGH	0	0	0
1		RIGHT	59	2	61
	EB	LEFT	41	2	43
		THROUGH	589	0	589
		RIGHT	0	0	0
	WB	LEFT	2	0	2
		THROUGH	545	0	545
		RIGHT	67	6	73
	NB	LEFT	12	0	12
MANOR ROAD		THROUGH	0	0	0
AT		RIGHT	7	0	7
TWOMEY AVENUE	SB	LEFT	7	0	7
		THROUGH	2	0	2
2		RIGHT	48	0	48
	EB	LEFT	47	0	47
		THROUGH	63	9	72
		RIGHT	4	0	4
	WB	LEFT	4	0	4
		THROUGH	86	9	95
		RIGHT	10	0	10
	NB	LEFT	9	4	13
		THROUGH	3	0	3
MANOR ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
MIDDLE ROAD		THROUGH	4	0	4
		RIGHT	88	0	88
3	EB	LEFT	71	0	71
		THROUGH	0	0	0
		RIGHT	3	4	7
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	NB	LEFT	0	5	5
		THROUGH	0	0	0
MANOR ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
SITE ACCESS		THROUGH	0	0	0
		RIGHT	0	0	0
4	EB	LEFT	0	0	0
		THROUGH	75	4	79
		RIGHT	0	5	5
	WB	LEFT	0	0	0
		THROUGH	98	4	102
		RIGHT	0	0	0
	NB	LEFT	0	0	0
		THROUGH	11	0	11
MIDDLE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
SITE ACCESS		THROUGH	6	0	6
		RIGHT	0	4	4
5	EB	LEFT	0	4	4
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0

APPENDIX B – Levels of Service Descriptions

LEVEL OF SERVICE: SIGNALIZED INTERSECTIONS

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

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

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

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

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

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

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

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

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

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

LEVEL OF SERVICE: TWO WAY STOP CONTROLLED INTERSECTIONS

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

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

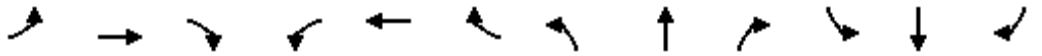
The level of service for a TWSC intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service is not defined for the intersection as a whole. The delay experienced by a motorist is made up of a number of factors that relate to control, geometry,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

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

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

APPENDIX C – Capacity Analyses Worksheets

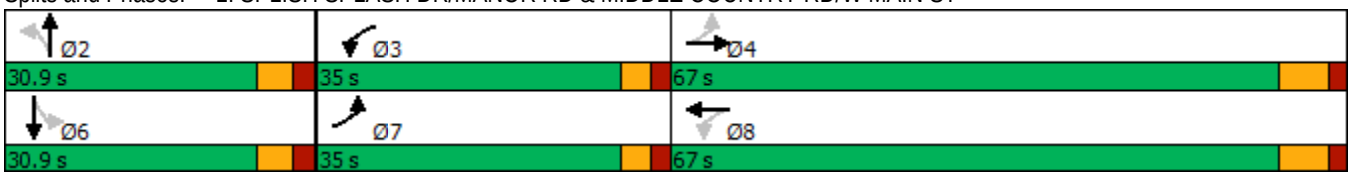
Existing Conditions

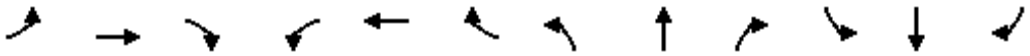


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	599	7	11	284	28	1	1	0	72	1	36
Future Volume (vph)	39	599	7	11	284	28	1	1	0	72	1	36
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.87	0.87	0.87	0.50	0.50	0.50	0.78	0.78	0.78
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	15%	3%	0%	0%	11%	11%	0%	0%	0%	15%	0%	17%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	41	637	7	13	326	32	2	2	0	92	1	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	644	0	13	358	0	0	4	0	0	139	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		25.9	25.9		25.9	25.9	
Total Split (s)	35.0	67.0		35.0	67.0		30.9	30.9		30.9	30.9	
Total Split (%)	26.3%	50.4%		26.3%	50.4%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	7.0		5.0	7.0			5.9			5.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	36.9	33.7		33.7	28.5			12.3			12.3	
Actuated g/C Ratio	0.60	0.55		0.55	0.47			0.20			0.20	
v/c Ratio	0.07	0.62		0.03	0.44			0.01			0.47	
Control Delay	5.4	13.6		5.5	14.8			24.5			27.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	5.4	13.6		5.5	14.8			24.5			27.0	
LOS	A	B		A	B			C			C	
Approach Delay		13.1			14.5			24.5			27.0	
Approach LOS		B			B			C			C	

Intersection Summary	
Cycle Length: 132.9	
Actuated Cycle Length: 61.2	
Natural Cycle: 65	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 51.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: SPLISH SPLASH DR/MANOR RD & MIDDLE COUNTRY RD/W MAIN ST

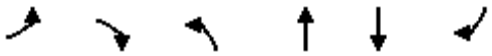




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	37	6	4	69	5	2	2	4	4	0	48
Future Volume (Veh/h)	23	37	6	4	69	5	2	2	4	4	0	48
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.81	0.81	0.81	0.60	0.60	0.60	0.72	0.72	0.72
Hourly flow rate (vph)	33	54	9	5	85	6	3	3	7	6	0	67
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	91			63			290	226	58	231	227	88
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	91			63			290	226	58	231	227	88
tC, single (s)	4.2			4.3			7.6	6.5	6.5	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.4			4.0	4.0	3.6	3.5	4.0	3.4
p0 queue free %	98			100			99	100	99	99	100	93
cM capacity (veh/h)	1437			1405			526	659	927	706	658	954

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	96	96	13	73
Volume Left	33	5	3	6
Volume Right	9	6	7	67
cSH	1437	1405	730	927
Volume to Capacity	0.02	0.00	0.02	0.08
Queue Length 95th (ft)	2	0	1	6
Control Delay (s)	2.7	0.4	10.0	9.2
Lane LOS	A	A	B	A
Approach Delay (s)	2.7	0.4	10.0	9.2
Approach LOS			B	A

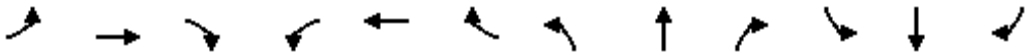
Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	20.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	38	9	15	1	3	59
Future Volume (Veh/h)	38	9	15	1	3	59
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.73	0.73	0.80	0.80	0.91	0.91
Hourly flow rate (vph)	52	12	19	1	3	65
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	74	36	68			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	74	36	68			
tC, single (s)	6.5	6.5	4.7			
tC, 2 stage (s)						
tF (s)	3.6	3.6	2.7			
p0 queue free %	94	99	98			
cM capacity (veh/h)	900	955	1234			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	64	20	68
Volume Left	52	19	0
Volume Right	12	0	65
cSH	910	1234	1700
Volume to Capacity	0.07	0.02	0.04
Queue Length 95th (ft)	6	1	0
Control Delay (s)	9.3	7.6	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	7.6	0.0
Approach LOS	A		

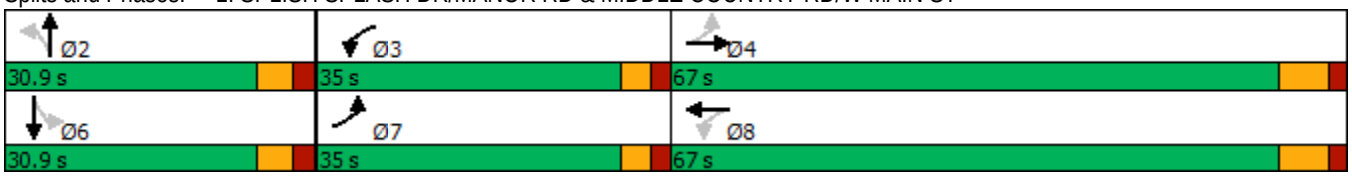
Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	17.6%	ICU Level of Service	A
Analysis Period (min)	15		

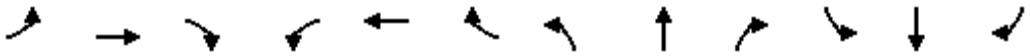


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	413	0	0	629	62	2	0	6	92	0	66
Future Volume (vph)	49	413	0	0	629	62	2	0	6	92	0	66
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.40	0.40	0.40	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	0%	0%	0%	6%	0%	0%	0%	4%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	52	435	0	0	715	70	5	0	15	107	0	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	435	0	0	785	0	0	20	0	0	184	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		25.9	25.9		25.9	25.9	
Total Split (s)	35.0	67.0		35.0	67.0		30.9	30.9		30.9	30.9	
Total Split (%)	26.3%	50.4%		26.3%	50.4%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	7.0		5.0	7.0			5.9			5.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	58.4	56.2			46.5			12.1			12.1	
Actuated g/C Ratio	0.71	0.68			0.57			0.15			0.15	
v/c Ratio	0.13	0.33			0.72			0.06			0.62	
Control Delay	4.4	6.0			18.9			0.4			32.9	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	4.4	6.0			18.9			0.4			32.9	
LOS	A	A			B			A			C	
Approach Delay		5.8			18.9			0.4			32.9	
Approach LOS		A			B			A			C	

Intersection Summary	
Cycle Length: 132.9	
Actuated Cycle Length: 82.3	
Natural Cycle: 75	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: SPLISH SPLASH DR/MANOR RD & MIDDLE COUNTRY RD/W MAIN ST

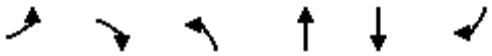




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	62	3	2	119	6	10	2	4	4	1	30
Future Volume (Veh/h)	47	62	3	2	119	6	10	2	4	4	1	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.74	0.74	0.74	0.50	0.50	0.50	0.73	0.73	0.73
Hourly flow rate (vph)	52	69	3	3	161	8	20	4	8	5	1	41
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	169			72			387	350	70	356	347	165
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	169			72			387	350	70	356	347	165
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	7.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.9	3.4
p0 queue free %	96			100			96	99	99	99	100	95
cM capacity (veh/h)	1409			1541			531	555	998	578	430	867

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	124	172	32	47
Volume Left	52	3	20	5
Volume Right	3	8	8	41
cSH	1409	1541	605	806
Volume to Capacity	0.04	0.00	0.05	0.06
Queue Length 95th (ft)	3	0	4	5
Control Delay (s)	3.4	0.1	11.3	9.7
Lane LOS	A	A	B	A
Approach Delay (s)	3.4	0.1	11.3	9.7
Approach LOS			B	A

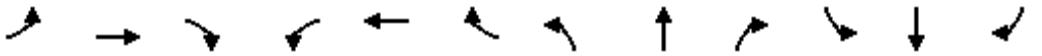
Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	26.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	62	6	11	7	5	116
Future Volume (Veh/h)	62	6	11	7	5	116
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.75	0.75	0.70	0.70
Hourly flow rate (vph)	69	7	15	9	7	166
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	129	90	173			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	129	90	173			
tC, single (s)	6.4	6.4	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.3			
p0 queue free %	92	99	99			
cM capacity (veh/h)	856	928	1362			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	76	24	173
Volume Left	69	15	0
Volume Right	7	0	166
cSH	862	1362	1700
Volume to Capacity	0.09	0.01	0.10
Queue Length 95th (ft)	7	1	0
Control Delay (s)	9.6	4.8	0.0
Lane LOS	A	A	
Approach Delay (s)	9.6	4.8	0.0
Approach LOS	A		

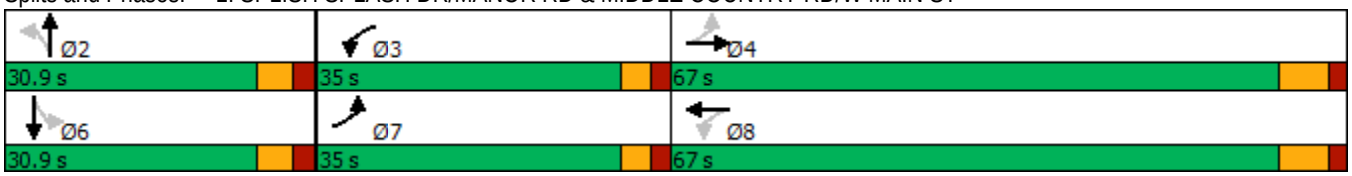
Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	20.6%	ICU Level of Service	A
Analysis Period (min)	15		

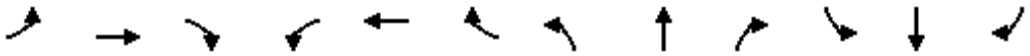


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	573	0	1	530	65	0	0	2	65	0	57
Future Volume (vph)	39	573	0	1	530	65	0	0	2	65	0	57
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.93	0.93	0.93	0.50	0.50	0.50	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	0%	0%	0%	1%	8%	0%	0%	0%	0%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	42	623	0	1	570	70	0	0	4	81	0	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	623	0	1	640	0	0	4	0	0	152	0
Turn Type	pm+pt	NA		pm+pt	NA			NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		25.9	25.9		25.9	25.9	
Total Split (s)	35.0	67.0		35.0	67.0		30.9	30.9		30.9	30.9	
Total Split (%)	26.3%	50.4%		26.3%	50.4%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	7.0		5.0	7.0			5.9			5.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	43.1	39.8		39.9	34.9			9.8			9.8	
Actuated g/C Ratio	0.66	0.61		0.61	0.54			0.15			0.15	
v/c Ratio	0.09	0.52		0.00	0.63			0.01			0.49	
Control Delay	4.1	9.7		4.0	15.3			0.0			22.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	4.1	9.7		4.0	15.3			0.0			22.7	
LOS	A	A		A	B			A			C	
Approach Delay		9.3			15.3						22.7	
Approach LOS		A			B						C	

Intersection Summary	
Cycle Length: 132.9	
Actuated Cycle Length: 65	
Natural Cycle: 65	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 56.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: SPLISH SPLASH DR/MANOR RD & MIDDLE COUNTRY RD/W MAIN ST

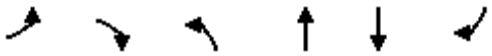




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	61	3	3	83	9	11	0	6	6	1	38
Future Volume (Veh/h)	45	61	3	3	83	9	11	0	6	6	1	38
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.88	0.88	0.88	0.61	0.61	0.61	0.62	0.62	0.62
Hourly flow rate (vph)	64	87	4	3	94	10	18	0	10	10	2	61
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	104			91			384	327	89	332	324	99
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	104			91			384	327	89	332	324	99
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.3	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.7	4.0	3.4
p0 queue free %	96			100			97	100	99	98	100	93
cM capacity (veh/h)	1475			1517			520	568	975	567	570	935

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	155	107	28	73
Volume Left	64	3	18	10
Volume Right	4	10	10	61
cSH	1475	1517	624	845
Volume to Capacity	0.04	0.00	0.04	0.09
Queue Length 95th (ft)	3	0	4	7
Control Delay (s)	3.3	0.2	11.0	9.7
Lane LOS	A	A	B	A
Approach Delay (s)	3.3	0.2	11.0	9.7
Approach LOS			B	A

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	22.6%	ICU Level of Service	A
Analysis Period (min)	15		

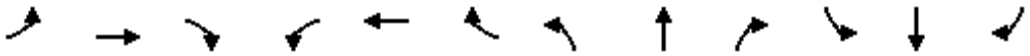


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	2	8	2	3	85
Future Volume (Veh/h)	69	2	8	2	3	85
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.66	0.66	0.62	0.62	0.79	0.79
Hourly flow rate (vph)	105	3	13	3	4	108
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	87	58	112			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	87	58	112			
tC, single (s)	6.4	6.7	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.8	2.2			
p0 queue free %	88	100	99			
cM capacity (veh/h)	908	888	1490			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	108	16	112
Volume Left	105	13	0
Volume Right	3	0	108
cSH	908	1490	1700
Volume to Capacity	0.12	0.01	0.07
Queue Length 95th (ft)	10	1	0
Control Delay (s)	9.5	6.1	0.0
Lane LOS	A	A	
Approach Delay (s)	9.5	6.1	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	17.7%	ICU Level of Service	A
Analysis Period (min)	15		

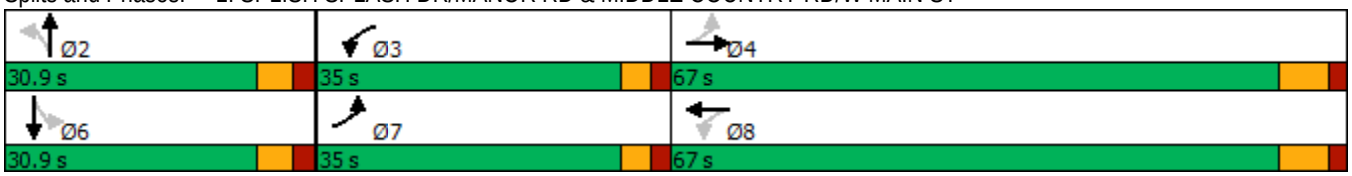
No Build Conditions

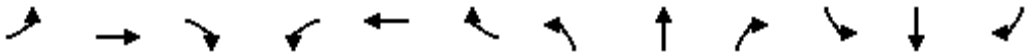


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	599	7	11	284	28	1	1	0	72	1	36
Future Volume (vph)	39	599	7	11	284	28	1	1	0	72	1	36
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.87	0.87	0.87	0.50	0.50	0.50	0.78	0.78	0.78
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	15%	3%	0%	0%	11%	11%	0%	0%	0%	15%	0%	17%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	43	656	8	13	336	33	2	2	0	95	1	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	664	0	13	369	0	0	4	0	0	144	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		25.9	25.9		25.9	25.9	
Total Split (s)	35.0	67.0		35.0	67.0		30.9	30.9		30.9	30.9	
Total Split (%)	26.3%	50.4%		26.3%	50.4%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	7.0		5.0	7.0			5.9			5.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	38.0	34.8		34.8	29.6			12.7			12.7	
Actuated g/C Ratio	0.61	0.55		0.55	0.47			0.20			0.20	
v/c Ratio	0.08	0.63		0.03	0.45			0.01			0.48	
Control Delay	5.5	13.9		5.5	14.9			25.5			27.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	5.5	13.9		5.5	14.9			25.5			27.8	
LOS	A	B		A	B			C			C	
Approach Delay		13.4			14.6			25.5			27.8	
Approach LOS		B			B			C			C	

Intersection Summary			
Cycle Length: 132.9			
Actuated Cycle Length: 62.8			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 15.5		Intersection LOS: B	
Intersection Capacity Utilization 53.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: SPLISH SPLASH DR/MANOR RD & MIDDLE COUNTRY RD/W MAIN ST

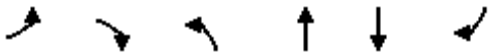




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	37	6	4	69	5	2	2	4	4	0	48
Future Volume (Veh/h)	23	37	6	4	69	5	2	2	4	4	0	48
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.81	0.81	0.81	0.60	0.60	0.60	0.72	0.72	0.72
Hourly flow rate (vph)	34	55	9	5	88	6	3	3	7	6	0	69
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	94			64			298	232	60	237	233	91
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	94			64			298	232	60	237	233	91
tC, single (s)	4.2			4.3			7.6	6.5	6.5	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.4			4.0	4.0	3.6	3.5	4.0	3.4
p0 queue free %	98			100			99	100	99	99	100	93
cM capacity (veh/h)	1434			1404			518	654	925	699	652	950

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	98	99	13	75
Volume Left	34	5	3	6
Volume Right	9	6	7	69
cSH	1434	1404	724	924
Volume to Capacity	0.02	0.00	0.02	0.08
Queue Length 95th (ft)	2	0	1	7
Control Delay (s)	2.7	0.4	10.1	9.2
Lane LOS	A	A	B	A
Approach Delay (s)	2.7	0.4	10.1	9.2
Approach LOS			B	A

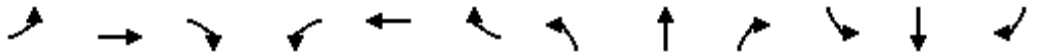
Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	20.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	38	9	15	1	3	59
Future Volume (Veh/h)	38	9	15	1	3	59
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.73	0.73	0.80	0.80	0.91	0.91
Hourly flow rate (vph)	54	13	19	1	3	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	76	36	70			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	76	36	70			
tC, single (s)	6.5	6.5	4.7			
tC, 2 stage (s)						
tF (s)	3.6	3.6	2.7			
p0 queue free %	94	99	98			
cM capacity (veh/h)	899	954	1231			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	67	20	70
Volume Left	54	19	0
Volume Right	13	0	67
cSH	909	1231	1700
Volume to Capacity	0.07	0.02	0.04
Queue Length 95th (ft)	6	1	0
Control Delay (s)	9.3	7.6	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	7.6	0.0
Approach LOS	A		

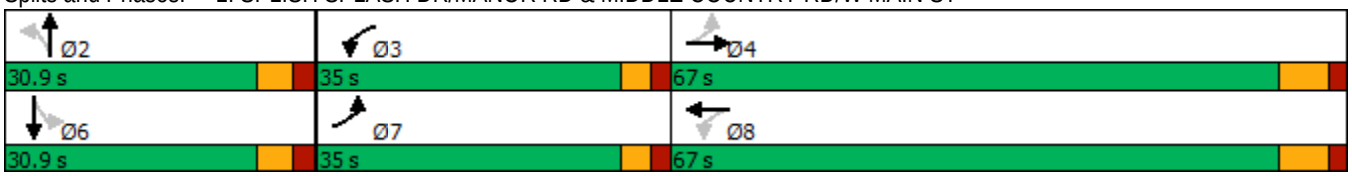
Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	17.6%	ICU Level of Service	A
Analysis Period (min)	15		

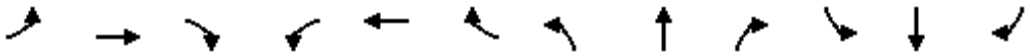


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	413	0	0	629	62	2	0	6	92	0	66
Future Volume (vph)	49	413	0	0	629	62	2	0	6	92	0	66
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.40	0.40	0.40	0.86	0.86	0.86
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	0%	0%	0%	6%	0%	0%	0%	4%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	53	448	0	0	736	73	5	0	15	110	0	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	448	0	0	809	0	0	20	0	0	189	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		25.9	25.9		25.9	25.9	
Total Split (s)	35.0	67.0		35.0	67.0		30.9	30.9		30.9	30.9	
Total Split (%)	26.3%	50.4%		26.3%	50.4%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	7.0		5.0	7.0			5.9			5.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	61.1	58.9			49.2			12.4			12.4	
Actuated g/C Ratio	0.72	0.69			0.58			0.15			0.15	
v/c Ratio	0.14	0.34			0.73			0.06			0.64	
Control Delay	4.5	6.0			19.2			0.4			34.6	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	4.5	6.0			19.2			0.4			34.6	
LOS	A	A			B			A			C	
Approach Delay		5.9			19.2			0.4			34.6	
Approach LOS		A			B			A			C	

Intersection Summary	
Cycle Length: 132.9	
Actuated Cycle Length: 85.3	
Natural Cycle: 75	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 68.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: SPLISH SPLASH DR/MANOR RD & MIDDLE COUNTRY RD/W MAIN ST

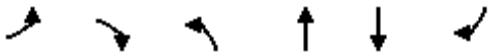




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	62	3	2	119	6	10	2	4	4	1	30
Future Volume (Veh/h)	47	62	3	2	119	6	10	2	4	4	1	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.74	0.74	0.74	0.50	0.50	0.50	0.73	0.73	0.73
Hourly flow rate (vph)	54	71	3	3	166	8	21	4	8	6	1	42
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	174			74			399	360	72	366	358	170
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	174			74			399	360	72	366	358	170
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	7.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.9	3.4
p0 queue free %	96			100			96	99	99	99	100	95
cM capacity (veh/h)	1403			1538			520	547	995	567	422	861

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	128	177	33	49
Volume Left	54	3	21	6
Volume Right	3	8	8	42
cSH	1403	1538	592	794
Volume to Capacity	0.04	0.00	0.06	0.06
Queue Length 95th (ft)	3	0	4	5
Control Delay (s)	3.4	0.1	11.4	9.8
Lane LOS	A	A	B	A
Approach Delay (s)	3.4	0.1	11.4	9.8
Approach LOS			B	A

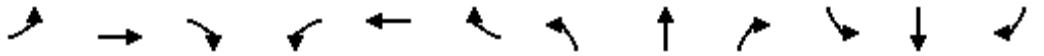
Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	26.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	62	6	11	7	5	116
Future Volume (Veh/h)	62	6	11	7	5	116
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.75	0.75	0.70	0.70
Hourly flow rate (vph)	71	7	15	10	7	171
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	132	92	178			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	132	92	178			
tC, single (s)	6.4	6.4	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.3			
p0 queue free %	92	99	99			
cM capacity (veh/h)	852	925	1357			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	78	25	178
Volume Left	71	15	0
Volume Right	7	0	171
cSH	858	1357	1700
Volume to Capacity	0.09	0.01	0.10
Queue Length 95th (ft)	7	1	0
Control Delay (s)	9.6	4.6	0.0
Lane LOS	A	A	
Approach Delay (s)	9.6	4.6	0.0
Approach LOS	A		

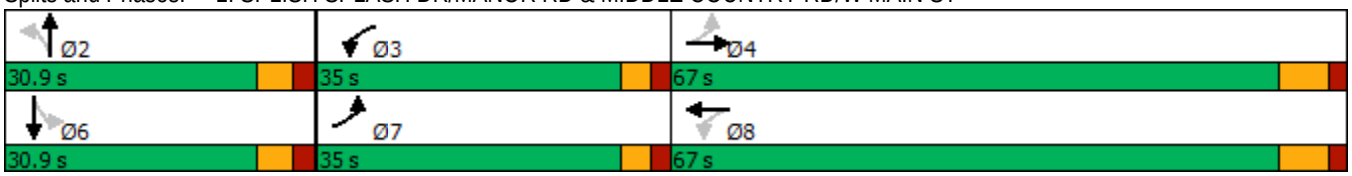
Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	21.0%	ICU Level of Service	A
Analysis Period (min)	15		

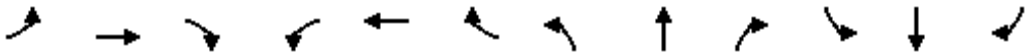


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	573	0	1	530	65	0	0	2	65	0	57
Future Volume (vph)	39	573	0	1	530	65	0	0	2	65	0	57
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.93	0.93	0.93	0.50	0.50	0.50	0.80	0.80	0.80
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	5%	0%	0%	0%	1%	8%	0%	0%	0%	0%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	44	642	0	1	587	72	0	0	4	84	0	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	642	0	1	659	0	0	4	0	0	157	0
Turn Type	pm+pt	NA		pm+pt	NA			NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		25.9	25.9		25.9	25.9	
Total Split (s)	35.0	67.0		35.0	67.0		30.9	30.9		30.9	30.9	
Total Split (%)	26.3%	50.4%		26.3%	50.4%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	7.0		5.0	7.0			5.9			5.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	45.6	42.3		42.4	37.4			10.1			10.1	
Actuated g/C Ratio	0.67	0.62		0.63	0.55			0.15			0.15	
v/c Ratio	0.09	0.52		0.00	0.63			0.01			0.51	
Control Delay	4.1	9.7		4.0	15.2			0.0			24.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	4.1	9.7		4.0	15.2			0.0			24.1	
LOS	A	A		A	B			A			C	
Approach Delay		9.3			15.2						24.1	
Approach LOS		A			B						C	

Intersection Summary	
Cycle Length: 132.9	
Actuated Cycle Length: 67.8	
Natural Cycle: 65	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: SPLISH SPLASH DR/MANOR RD & MIDDLE COUNTRY RD/W MAIN ST

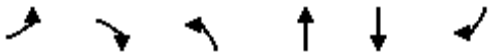




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	61	3	3	83	9	11	0	6	6	1	38
Future Volume (Veh/h)	45	61	3	3	83	9	11	0	6	6	1	38
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.88	0.88	0.88	0.61	0.61	0.61	0.62	0.62	0.62
Hourly flow rate (vph)	66	90	4	4	97	11	19	0	10	10	2	63
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	108			94			398	340	92	344	336	102
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	108			94			398	340	92	344	336	102
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.3	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.7	4.0	3.4
p0 queue free %	96			100			96	100	99	98	100	93
cM capacity (veh/h)	1470			1513			507	557	971	556	560	931

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	160	112	29	75
Volume Left	66	4	19	10
Volume Right	4	11	10	63
cSH	1470	1513	607	840
Volume to Capacity	0.04	0.00	0.05	0.09
Queue Length 95th (ft)	4	0	4	7
Control Delay (s)	3.3	0.3	11.2	9.7
Lane LOS	A	A	B	A
Approach Delay (s)	3.3	0.3	11.2	9.7
Approach LOS			B	A

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	22.8%	ICU Level of Service	A
Analysis Period (min)	15		

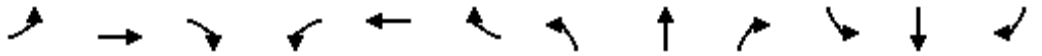


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	2	8	2	3	85
Future Volume (Veh/h)	69	2	8	2	3	85
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.66	0.66	0.62	0.62	0.79	0.79
Hourly flow rate (vph)	108	3	13	3	4	111
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	88	60	115			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	88	60	115			
tC, single (s)	6.4	6.7	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.8	2.2			
p0 queue free %	88	100	99			
cM capacity (veh/h)	907	886	1487			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	111	16	115
Volume Left	108	13	0
Volume Right	3	0	111
cSH	906	1487	1700
Volume to Capacity	0.12	0.01	0.07
Queue Length 95th (ft)	10	1	0
Control Delay (s)	9.5	6.1	0.0
Lane LOS	A	A	
Approach Delay (s)	9.5	6.1	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	18.0%	ICU Level of Service	A
Analysis Period (min)	15		

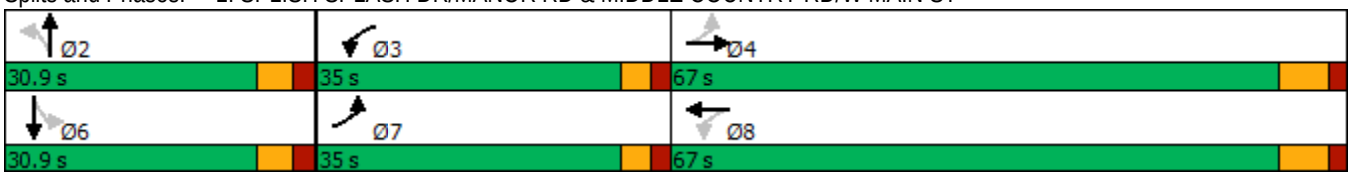
Build Conditions

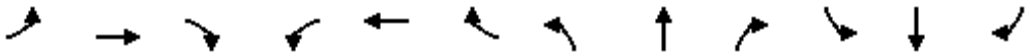


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	616	8	12	292	35	2	2	0	78	2	38
Future Volume (vph)	43	616	8	12	292	35	2	2	0	78	2	38
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.87	0.87	0.87	0.50	0.50	0.50	0.78	0.78	0.78
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	23%	3%	0%	0%	11%	28%	0%	0%	0%	22%	0%	21%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	46	655	9	14	336	40	4	4	0	100	3	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	664	0	14	376	0	0	8	0	0	152	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		25.9	25.9		25.9	25.9	
Total Split (s)	35.0	67.0		35.0	67.0		30.9	30.9		30.9	30.9	
Total Split (%)	26.3%	50.4%		26.3%	50.4%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	7.0		5.0	7.0			5.9			5.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	38.3	35.1		35.0	29.7			13.7			13.7	
Actuated g/C Ratio	0.60	0.55		0.55	0.46			0.21			0.21	
v/c Ratio	0.09	0.64		0.03	0.47			0.02			0.51	
Control Delay	5.9	14.6		5.9	15.9			25.2			29.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	5.9	14.6		5.9	15.9			25.2			29.1	
LOS	A	B		A	B			C			C	
Approach Delay		14.0			15.6			25.3			29.1	
Approach LOS		B			B			C			C	

Intersection Summary			
Cycle Length: 132.9			
Actuated Cycle Length: 64.1			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 56.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: SPLISH SPLASH DR/MANOR RD & MIDDLE COUNTRY RD/W MAIN ST

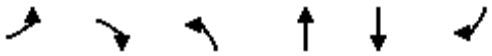




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	47	7	5	77	6	3	3	5	5	0	48
Future Volume (Veh/h)	24	47	7	5	77	6	3	3	5	5	0	48
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.81	0.81	0.81	0.60	0.60	0.60	0.72	0.72	0.72
Hourly flow rate (vph)	35	68	10	6	95	7	5	5	8	7	0	67
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	102			78			320	257	73	264	258	98
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	102			78			320	257	73	264	258	98
tC, single (s)	4.2			4.3			7.6	6.5	6.5	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.4			4.0	4.0	3.6	3.5	4.0	3.4
p0 queue free %	98			100			99	99	99	99	100	93
cM capacity (veh/h)	1424			1387			499	632	909	668	631	941

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	113	108	18	74
Volume Left	35	6	5	7
Volume Right	10	7	8	67
cSH	1424	1387	673	906
Volume to Capacity	0.02	0.00	0.03	0.08
Queue Length 95th (ft)	2	0	2	7
Control Delay (s)	2.5	0.5	10.5	9.3
Lane LOS	A	A	B	A
Approach Delay (s)	2.5	0.5	10.5	9.3
Approach LOS			B	A

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	21.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	14	17	2	4	61
Future Volume (Veh/h)	40	14	17	2	4	61
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.73	0.73	0.80	0.80	0.91	0.91
Hourly flow rate (vph)	55	19	21	3	4	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	82	38	71			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	82	38	71			
tC, single (s)	6.5	6.5	4.7			
tC, 2 stage (s)						
tF (s)	3.6	3.6	2.7			
p0 queue free %	94	98	98			
cM capacity (veh/h)	889	953	1230			

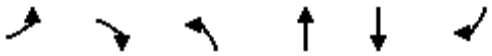
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	74	24	71
Volume Left	55	21	0
Volume Right	19	0	67
cSH	905	1230	1700
Volume to Capacity	0.08	0.02	0.04
Queue Length 95th (ft)	7	1	0
Control Delay (s)	9.3	7.0	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	7.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	17.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	51	5	0	83	5	0
Future Volume (Veh/h)	51	5	0	83	5	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	5	0	90	5	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			60		148	58
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			60		148	58
tC, single (s)			4.1		7.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		4.4	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1544		660	1009

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	60	90	5
Volume Left	0	0	5
Volume Right	5	0	0
cSH	1700	1544	660
Volume to Capacity	0.04	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	10.5
Lane LOS			B
Approach Delay (s)	0.0	0.0	10.5
Approach LOS			B

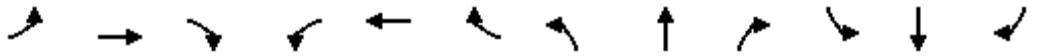
Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	14.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	0	0	17	13	4
Future Volume (Veh/h)	1	0	0	17	13	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	0	0	18	14	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	34	16	18			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	34	16	18			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	979	1063	1599			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	1	18	18
Volume Left	1	0	0
Volume Right	0	0	4
cSH	979	1599	1700
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

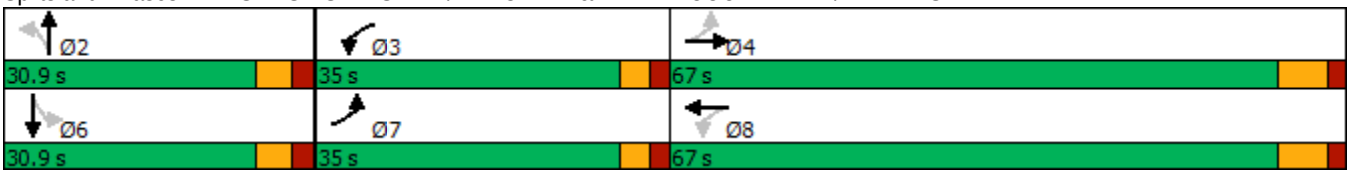
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

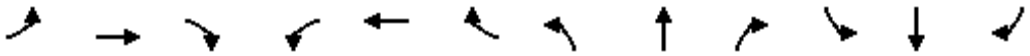


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	425	0	0	646	68	3	0	7	101	0	70
Future Volume (vph)	52	425	0	0	646	68	3	0	7	101	0	70
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.40	0.40	0.40	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	2%	0%	0%	0%	15%	0%	0%	0%	13%	0%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	55	447	0	0	734	77	8	0	18	117	0	81
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	447	0	0	811	0	0	26	0	0	198	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		25.9	25.9		25.9	25.9	
Total Split (s)	35.0	67.0		35.0	67.0		30.9	30.9		30.9	30.9	
Total Split (%)	26.3%	50.4%		26.3%	50.4%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	7.0		5.0	7.0			5.9			5.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	62.5	60.3			50.4			13.7			13.7	
Actuated g/C Ratio	0.71	0.69			0.57			0.16			0.16	
v/c Ratio	0.16	0.34			0.74			0.08			0.68	
Control Delay	5.1	6.5			20.7			0.5			37.1	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	5.1	6.5			20.7			0.5			37.1	
LOS	A	A			C			A			D	
Approach Delay		6.3			20.7			0.5			37.1	
Approach LOS		A			C			A			D	

Intersection Summary	
Cycle Length: 132.9	
Actuated Cycle Length: 88	
Natural Cycle: 75	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: SPLISH SPLASH DR/MANOR RD & MIDDLE COUNTRY RD/W MAIN ST

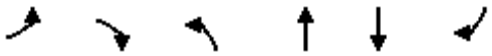




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	70	4	3	132	7	11	3	5	5	2	48
Future Volume (Veh/h)	49	70	4	3	132	7	11	3	5	5	2	48
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.74	0.74	0.74	0.50	0.50	0.50	0.73	0.73	0.73
Hourly flow rate (vph)	54	78	4	4	178	9	22	6	10	7	3	66
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	187			82			446	383	80	392	380	182
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	187			82			446	383	80	392	380	182
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	7.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.9	3.4
p0 queue free %	96			100			95	99	99	99	99	92
cM capacity (veh/h)	1387			1528			467	530	986	543	408	847

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	136	191	38	76
Volume Left	54	4	22	7
Volume Right	4	9	10	66
cSH	1387	1528	554	774
Volume to Capacity	0.04	0.00	0.07	0.10
Queue Length 95th (ft)	3	0	6	8
Control Delay (s)	3.2	0.2	12.0	10.2
Lane LOS	A	A	B	B
Approach Delay (s)	3.2	0.2	12.0	10.2
Approach LOS			B	B

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	28.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	64	8	16	8	6	120
Future Volume (Veh/h)	64	8	16	8	6	120
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.75	0.75	0.70	0.70
Hourly flow rate (vph)	71	9	21	11	9	171
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	148	94	180			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	148	94	180			
tC, single (s)	6.4	6.4	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.3			
p0 queue free %	91	99	98			
cM capacity (veh/h)	832	923	1354			

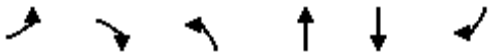
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	80	32	180
Volume Left	71	21	0
Volume Right	9	0	171
cSH	841	1354	1700
Volume to Capacity	0.10	0.02	0.11
Queue Length 95th (ft)	8	1	0
Control Delay (s)	9.7	5.1	0.0
Lane LOS	A	A	
Approach Delay (s)	9.7	5.1	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	25.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	73	5	0	135	5	0
Future Volume (Veh/h)	73	5	0	135	5	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	79	5	0	147	5	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			84		228	82
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			84		228	82
tC, single (s)			4.1		7.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		4.4	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1513		586	978

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	84	147	5
Volume Left	0	0	5
Volume Right	5	0	0
cSH	1700	1513	586
Volume to Capacity	0.05	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	11.2
Lane LOS			B
Approach Delay (s)	0.0	0.0	11.2
Approach LOS			B

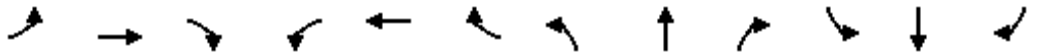
Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		17.1%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	0	0	19	12	1
Future Volume (Veh/h)	4	0	0	19	12	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	0	0	21	13	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	34	14	14			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	34	14	14			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	979	1067	1604			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	4	21	14
Volume Left	4	0	0
Volume Right	0	0	1
cSH	979	1604	1700
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

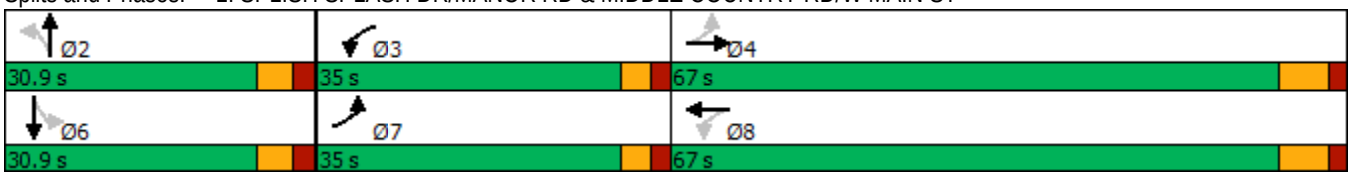
Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

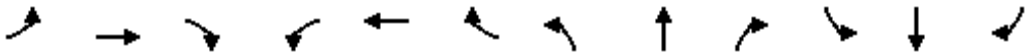


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	589	0	2	545	73	0	0	3	73	0	61
Future Volume (vph)	43	589	0	2	545	73	0	0	3	73	0	61
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.93	0.93	0.93	0.50	0.50	0.50	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	14%	0%	0%	0%	1%	18%	0%	0%	0%	11%	0%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	47	640	0	2	586	78	0	0	6	91	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	640	0	2	664	0	0	6	0	0	167	0
Turn Type	pm+pt	NA		pm+pt	NA			NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		25.9	25.9		25.9	25.9	
Total Split (s)	35.0	67.0		35.0	67.0		30.9	30.9		30.9	30.9	
Total Split (%)	26.3%	50.4%		26.3%	50.4%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	7.0		5.0	7.0			5.9			5.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	46.8	43.4		43.3	38.3			11.2			11.2	
Actuated g/C Ratio	0.67	0.62		0.62	0.55			0.16			0.16	
v/c Ratio	0.11	0.53		0.00	0.65			0.01			0.55	
Control Delay	4.5	10.1		4.5	16.3			0.0			26.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	4.5	10.1		4.5	16.3			0.0			26.7	
LOS	A	B		A	B			A			C	
Approach Delay		9.7			16.3						26.7	
Approach LOS		A			B						C	

Intersection Summary	
Cycle Length: 132.9	
Actuated Cycle Length: 70.2	
Natural Cycle: 65	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 14.4	Intersection LOS: B
Intersection Capacity Utilization 60.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: SPLISH SPLASH DR/MANOR RD & MIDDLE COUNTRY RD/W MAIN ST

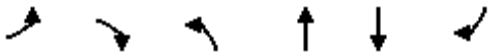




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	72	4	4	95	10	12	0	7	7	2	48
Future Volume (Veh/h)	47	72	4	4	95	10	12	0	7	7	2	48
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.88	0.88	0.88	0.61	0.61	0.61	0.62	0.62	0.62
Hourly flow rate (vph)	67	103	6	5	108	11	20	0	11	11	3	77
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	119			109			442	369	106	374	366	114
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	119			109			442	369	106	374	366	114
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.3	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.7	4.0	3.4
p0 queue free %	95			100			96	100	99	98	99	92
cM capacity (veh/h)	1457			1494			465	536	954	529	538	918

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	176	124	31	91
Volume Left	67	5	20	11
Volume Right	6	11	11	77
cSH	1457	1494	568	825
Volume to Capacity	0.05	0.00	0.05	0.11
Queue Length 95th (ft)	4	0	4	9
Control Delay (s)	3.1	0.3	11.7	9.9
Lane LOS	A	A	B	A
Approach Delay (s)	3.1	0.3	11.7	9.9
Approach LOS			B	A

Intersection Summary				
Average Delay	4.4			
Intersection Capacity Utilization	23.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	71	7	13	3	4	88
Future Volume (Veh/h)	71	7	13	3	4	88
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.66	0.66	0.62	0.62	0.79	0.79
Hourly flow rate (vph)	108	11	21	5	5	111
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	108	60	116			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	108	60	116			
tC, single (s)	6.4	6.7	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.8	2.2			
p0 queue free %	88	99	99			
cM capacity (veh/h)	880	885	1485			

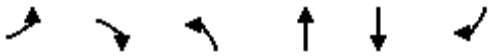
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	119	26	116
Volume Left	108	21	0
Volume Right	11	0	111
cSH	880	1485	1700
Volume to Capacity	0.14	0.01	0.07
Queue Length 95th (ft)	12	1	0
Control Delay (s)	9.7	6.0	0.0
Lane LOS	A	A	
Approach Delay (s)	9.7	6.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	5.0		
Intersection Capacity Utilization	18.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	79	5	0	102	5	0
Future Volume (Veh/h)	79	5	0	102	5	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	86	5	0	111	5	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			91		200	88
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			91		200	88
tC, single (s)			4.1		7.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		4.4	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1504		612	970

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	91	111	5
Volume Left	0	0	5
Volume Right	5	0	0
cSH	1700	1504	612
Volume to Capacity	0.05	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	10.9
Lane LOS			B
Approach Delay (s)	0.0	0.0	10.9
Approach LOS			B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	15.4%	ICU Level of Service	A
Analysis Period (min)	15		

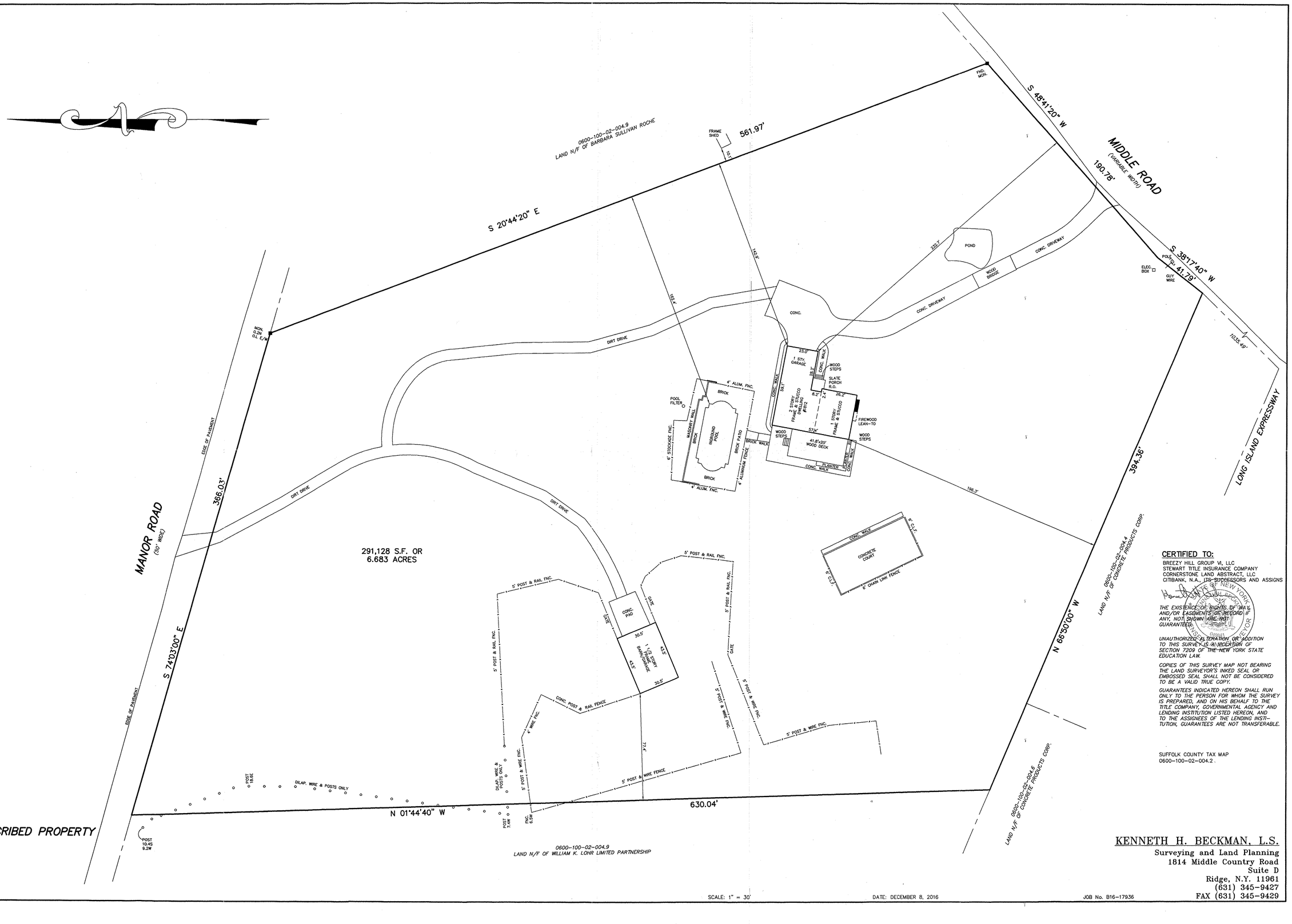


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	0	0	11	6	4
Future Volume (Veh/h)	4	0	0	11	6	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	0	0	12	7	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	21	9	11			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	21	9	11			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	996	1073	1608			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	4	12	11
Volume Left	4	0	0
Volume Right	0	0	4
cSH	996	1608	1700
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.6	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.6	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

PLANS



SURVEY OF DESCRIBED PROPERTY

SITUATED AT

CALVERTON

TOWN OF RIVERHEAD

SUFFOLK COUNTY

NEW YORK

CERTIFIED TO:

BREEZY HILL GROUP VI, LLC
STEWART TITLE INSURANCE COMPANY
CORNERSTONE LAND ABSTRACT, LLC
CITIBANK, N.A., ITS SUCCESSORS AND ASSIGNS

THE EXISTENCE OF RIGHTS OF WAY AND/OR EASEMENTS OF RECORD IF ANY, NOT SHOWN ARE NOT GUARANTEED.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

GUARANTEES INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON, AND TO THE ASSIGNEES OF THE LENDING INSTITUTION, GUARANTEES ARE NOT TRANSFERABLE.

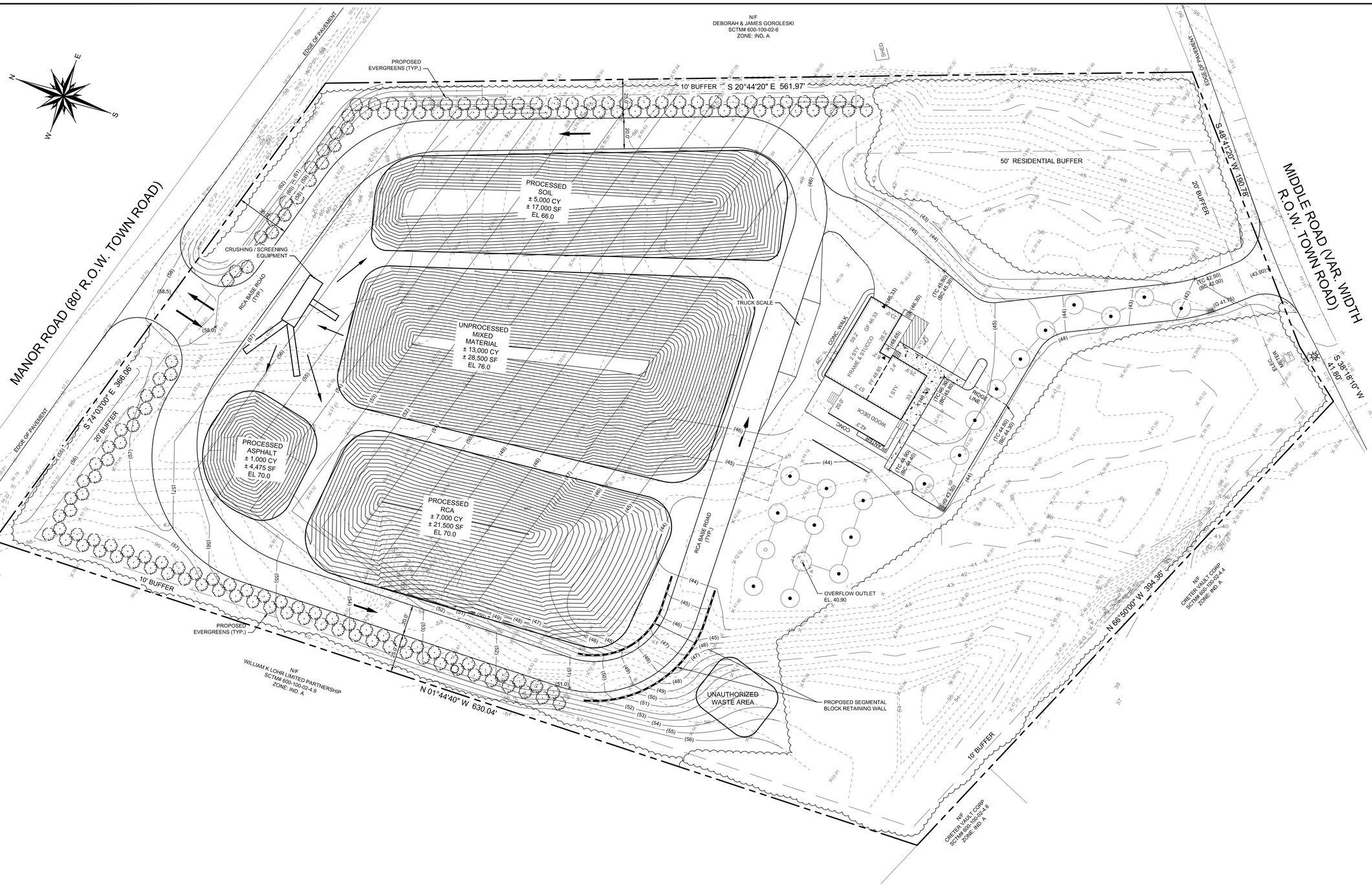
SUFFOLK COUNTY TAX MAP
0600-100-02-004.2.

KENNETH H. BECKMAN, L.S.
Surveying and Land Planning
1814 Middle Country Road
Suite D
Ridge, N.Y. 11961
(631) 345-9427
FAX (631) 345-9429

SCALE: 1" = 30'

DATE: DECEMBER 8, 2016

JOB No. 816-17936



	VOLUME (CY)	AREA (SF)
UNPROCESSED		
IMPORTED / UNPROCESSED MATERIAL	13,000	28,500
PROCESSED		
RCA	7,000	21,500
SOIL	5,000	17,000
ASPHALT	1,000	4,475

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

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

NO.	DATE:	REVISIONS:	BY:

P.E. SEAL AND SIGNATURE

PART 360 PERMIT PLAN
FOR
BREEZY HILL GROUP VI, LLC
SITUATED AT
1792 MIDDLE RD CALVERTON
TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK
SCTM DISTRICT 600 SECTION 100 BLOCK 2 LOTS 4.2

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

PROJECT NO.:	17060
DRAWN BY:	RF
CHECKED BY:	TD
DATE:	05/12/2021
SCALE:	1" = 30'
FILE NO.:	-
CADD:	17060SP
DRAWING NO.:	C-101
SHEET NO.:	1 OF 1

PRELIMINARY SITE PLAN

FOR

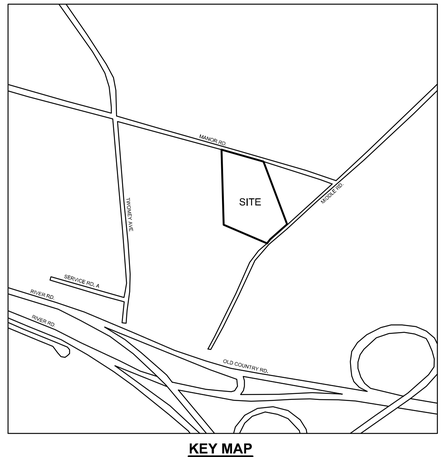
1792 MIDDLE ROAD

AT

CALVERTON

TOWN OF RIVERHEAD

SUFFOLK COUNTY, NEW YORK



KEY MAP
SCALE:1"=600'

NOTE:
THIS PLAN IS BASED IN PART ON A SURVEY OF THE PROPERTY PREPARED BY KENNETH H. BECKMAN, L.S. DATED DECEMBER 8,2016.

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GENERAL NOTES

1. NELSON & POPE SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF THE PUBLIC OR CONTRACTOR'S EMPLOYEES, OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS THAT WILL BE REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT FROM START TO FINISH, INCLUDING BUT NOT LIMITED TO PERMITS FOR MUNICIPAL ROAD AND CURB CUT CONSTRUCTION; GAS, ELECTRIC, TELEPHONE, AND CABLE INSTALLATION; WATER MAIN AND SERVICE INSTALLATION; SITE CLEARING AND TREE REMOVAL; EXCAVATION; SITE IMPROVEMENTS; DEMOLITION; AND BUILDING CONSTRUCTION. CONTRACTOR SHALL COORDINATE THE REQUIRED UTILITY AND MUNICIPAL INSPECTIONS.
3. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR THE INSTALLATION OF ALL SANITARY DISPOSAL FACILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS OF THE SANITARY SYSTEM FROM ALL GOVERNING AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE CERTIFYING ENGINEER FOR THE REQUIRED SITE VISITATIONS AND DOCUMENTATION NECESSARY FOR THE ENGINEERS PREPARATION OF ANY MUNICIPAL REQUIRED AS-CONSTRUCTED DOCUMENTS. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MUNICIPAL AGENCIES HAVING JURISDICTION.
4. LOCATION OF ALL EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO EXCAVATION. CONTRACTOR SHALL NOTIFY OWNER PRIOR TO COMMENCING CONSTRUCTION OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD LOCATIONS AND INFORMATION REPRESENTED ON PLAN, FOR DIRECTION. EXISTING UTILITY LOCATION SHOWN ON PLANS IS BASED ON AVAILABLE INFORMATION AND FOR INFORMATIONAL PURPOSES ONLY, CONTRACTOR IS SOLELY RESPONSIBLE FOR LOCATING AND IDENTIFYING ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. EXISTING SITE LIGHTING AND SIGNAGE ELECTRIC AND LANDSCAPE IRRIGATION IS NOT INCLUDED ON THE PLANS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR THE REMOVAL AND DISPOSAL OF ANY EXCAVATED AND DEMOLISHED MATERIALS AND DEBRIS.
6. UNSUITABLE MATERIAL (AS DEFINED IN THE REQUIREMENTS OF THE MUNICIPAL AGENCY HAVING JURISDICTION AND AS A MINIMUM DEFINED IN SECTION 203 OF N.Y.S.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION) UNDER PAVEMENT, WALKS AND CONCRETE SLABS OR AS INDICATED WITHIN THE SITE WORK CONTRACT DOCUMENTS, SHALL BE REMOVED AND REPLACED WITH SELECT GRANULAR MATERIAL.
7. SELECT GRANULAR FILL/MATERIAL SHALL BE AS DEFINED IN THE REQUIREMENTS OF THE MUNICIPAL AGENCY HAVING JURISDICTION AND AS A MINIMUM DEFINED IN SECTION 203 OF N.Y.S.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
8. COMPACTION SHALL CONFORM TO THE REQUIREMENTS OF THE MUNICIPAL AGENCY HAVING JURISDICTION AND AS A MINIMUM DEFINED IN SECTION 203 OF N.Y.S.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
9. ALL EXISTING STRUCTURES AND SITE IMPROVEMENTS SPECIFIED TO BE REMOVED, SHALL BE COMPLETELY REMOVED AND BACKFILLED. BACKFILL TO BE SELECT GRANULAR FILL, COMPACTED TO 95% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT, AS DETERMINED BY MODIFIED PROCTOR TEST, UNLESS OTHERWISE NOTED.
10. ALL FILL/BACKFILL SHALL BE SELECT GRANULAR MATERIAL, COMPACTED TO 95% MAXIMUM DENSITY AT OPTIMUM MOISTURE, AS DETERMINED BY MODIFIED PROCTOR TEST, UNLESS OTHERWISE NOTED.
11. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL UNSUITABLE MATERIAL, SURPLUS MATERIAL AND DEBRIS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, TOWN, COUNTY, STATE AND FEDERAL LAWS AND APPLICABLE CODES.
12. ALL MUNICIPAL AGENCIES HAVING JURISDICTION DURING CONSTRUCTION SHALL BE NOTIFIED A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE OF ALL CONSTRUCTION, UNLESS OTHERWISE INDICATED AS A CONDITION OF MUNICIPAL APPROVAL OR PERMIT. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND INSURING ALL NECESSARY MUNICIPAL INSPECTIONS, CONDITIONS OF APPROVAL, AND CERTIFICATIONS ARE PERFORMED AND OBTAINED IN ACCORDANCE TO THE APPLICABLE PERMITS AND MUNICIPAL REQUIREMENTS.
13. ALL SITE WORK SHALL BE IN ACCORDANCE WITH THE CURRENT REQUIREMENTS OF THE TOWN AND COUNTY AND SHALL CONFORM AS A MINIMUM TO THE DETAILS AND STANDARDS OF THE MUNICIPAL AGENCY HAVING JURISDICTION AND/OR PERMITS, UNLESS MORE STRINGENTLY DETAILED AND/OR SPECIFIED HEREIN. ALL ON-SITE CONCRETE CURBING, SIDEWALK AND DRAINAGE STRUCTURES SHALL CONFORM TO TOWN STANDARD DETAILS.
14. PROPOSED CABLE AND TELEPHONE SERVICE LOCATIONS SUBJECT TO CABLE AND TELEPHONE COMPANY APPROVAL. ALL WORK SHALL CONFORM, AS A MINIMUM, TO THE REQUIREMENTS OF THE CABLE AND TELEPHONE COMPANY.
15. INSTALLATION AND SERVICE COORDINATION OF ELECTRIC SERVICE IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL WORK SHALL CONFORM, AS A MINIMUM, TO THE REQUIREMENTS OF PSEG LI.
16. ELEVATIONS REFER TO NAVD88 DATUM.
17. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
18. ALL PARKING LOT LIGHTING POLES, LIGHTING FIXTURE CONFIGURATIONS, AND COLOR SHALL BE APPROVED BY OWNER OR OWNER'S REPRESENTATIVE, PRIOR TO INSTALLATION. INSTALLATION OF SITE ELECTRIC SHALL BE AS DETAILED BY OTHERS.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR THE INSTALLATION OF SIGNS.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF EROSION CONTROL MEASURES PROTECTING NEW AND EXISTING IMPROVEMENTS AND ADJACENT PROPERTIES CONFORMING TO THE FEDERAL, STATE, COUNTY, AND LOCAL MUNICIPAL REQUIREMENTS. EROSION CONTROL MEASURES SHOWN ON THE APPROVED CONSTRUCTION PLANS AND WITHIN THE FILED STORMWATER MANAGEMENT PLAN (SWPPP) ARE MINIMUM REQUIREMENTS. EROSION CONTROL IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
21. DURING CONSTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLATION OF TEMPORARY TRAFFIC CONTROL DEVICES FOR THE MAINTENANCE AND PROTECTION OF VEHICULAR AND PEDESTRIAN TRAFFIC IN THE VICINITY OF THE LIMITS OF CONSTRUCTION. THE TRAFFIC CONTROL DEVICES SHALL CONFORM AS A MINIMUM TO THE N.Y.S. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND TO THE REQUIREMENTS AND/OR CONDITIONS OF ANY MUNICIPAL PERMITS OR APPROVALS. MAINTENANCE AND PROTECTION OF TRAFFIC IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES WITHIN THE LIMITS OF CONSTRUCTION.
23. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLATION OF PERMANENT TRAFFIC CONTROL DEVICES CONFORMING AS A MINIMUM TO THE N.Y.S. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND TO THE REQUIREMENTS AND/OR CONDITIONS OF ANY MUNICIPAL PERMITS AND AS SHOWN ON THE APPROVED PLANS. THE CONTRACTOR SHALL NOT AMEND EXISTING OR APPROVED TRAFFIC CONTROL SIGNAGE, PAVEMENT MARKINGS AND /OR OTHER TRAFFIC CONTROL DEVICES WITHOUT APPROVAL OF THE AGENCIES HAVING JURISDICTION.
24. BROKEN OR HAZARDOUS EXISTING SIDEWALK, DRIVEWAY APRONS AND CURBING ADJACENT TO AND ON THE SUBJECT SITE AND LIMITS OF CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH CURRENT STANDARDS, AS ORDERED BY THE MUNICIPAL AGENCY HAVING JURISDICTION.
25. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AND IN PLACE PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY. MEASURES SHALL BE MAINTAINED AND MODIFIED AS NECESSARY THROUGH OUT THE IMPROVEMENT CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL ACCEPTANCE OF IMPROVEMENT CONSTRUCTION BY LOCAL MUNICIPALITY HAVING JURISDICTION.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING HANDICAP ACCESS RELATED IMPROVEMENTS IN ACCORDANCE WITH THE LATEST APPLICABLE FEDERAL, STATE AND LOCAL HANDICAP ACCESSIBILITY REGULATIONS, REQUIREMENTS AND LAWS INCLUDING, BUT NOT LIMITED TO: BUILDING ACCESS, HANDICAP ACCESSIBLE ROUTE, LANDINGS, PARKING, RAILINGS AND SIGNAGE.

SITE DATA
S.C.T.M.: DIST. 600 SECT. 100 BLOCK 2 LOTS 4.2
EXISTING ZONE: INDUSTRIAL A
EXISTING USE: RESIDENTIAL
PROPOSED USE: ASPHALT & CONCRETE SCREENING & CRUSHING
AREA: 6.68 AC
SCHOOL DISTRICT: RIVERHEAD CSD
FIRE DISTRICT: 21,42,44

SITE COVERAGE DATA

BUILDINGS:	6,690	SF (2.3%)
IMPERVIOUS:	140,970	SF (48.42%)
WOODS:	79,378	SF (27.26%)
LANDSCAPE (OPEN SPACE):	64,105	SF (22.02%)
TOTAL SITE:	291,143	SF

PARKING CALCULATIONS
REQUIRED: 1 STALL PER 400 SF
5,456 SF / 400 = 13.64 (14 PARKING STALLS REQUIRED)
PROVIDED: 11 PAVED (INCLUDING 1 HC) AND 3 LANDBANK

SANITARY CALCULATIONS
GROUNDWATER MANAGEMENT ZONE III
ALLOWABLE DENSITY: 6,683 AC x 300 GPD/AC = 2,004.9 GPD
DENSITY LOAD
5,456 SF x 0.04 GPD/SF (GENERAL INDUSTRIAL) = 218.2 GPD
218.2 GPD < 2,004.9 GPD ALLOWABLE DENSITY, THEREFORE, SEPTIC SYSTEM PERMITTED

NOTE: EXISTING SEPTIC SYSTEM AND WATER SERVICE HAS NOT BEEN LOCATED AND THEREFORE NOT SHOWN ON PLAN.

OWNER/APPLICANT:
BREEZY HILL GROUP LLC
2186 KIRBY LANE
SYOSSET NY 11791

SHEET INDEX:

UTILITY CONTACTS

SANITARY
SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
360 YAPHANK AVENUE, SUITE 2C
YAPHANK NY, 11980

WATER
SUFFOLK COUNTY WATER AUTHORITY
2045 ROUTE 112
CORAM, NEW YORK 11727

ELECTRIC
PSEG
117 DOCTORS PATH
RIVERHEAD, NEW YORK 11901

TELEPHONE
VERIZON
501 N. OCEAN AVENUE
PATCHOGUE, NEW YORK 11772

LEGEND

- PROPERTY LINE
- EXIST. UTILITY POLE
- TC51.94 / BC51.50 — PROP. TOP / BOTTOM CURB ELEVATION
- 53.30 — EXIST. SPOT ELEVATION
- EXIST. CURB
- D.C. — EXIST. DROP CURB
- EXIST. FENCE
- SOIL BORING LOCATION
- (SF) (SF) — PROP. SILT FENCE
- PROP. INLET PROTECTION
- PROP. STABILIZED CONSTRUCTION ENTRANCE
- LP — PROP. LEACHING POOL (COVER)
- LP — PROP. LEACHING POOL (GRATE)
- (D) — PROP. DRAINAGE PIPE
- PROP. DRAINAGE TRIBUTARY AREA
- PROP. DRAINAGE FLOW
- PROP. CURB
- PROP. CONC. WALK
- (5) — PROP. PARKING STALL AND COUNT
- PROP. HC PARKING STALL AND ACCESS AISLE
- (100.00) / 100.00 — PROP. GRADE EL.
- (TC 100.00) / (BC 100.00) — PROP. TOP / BOTTOM CURB
- (137) — PROP. CONTOUR
- LB — LANDBANKED PARKING

NO.	DATE:	REVISIONS:	BY:
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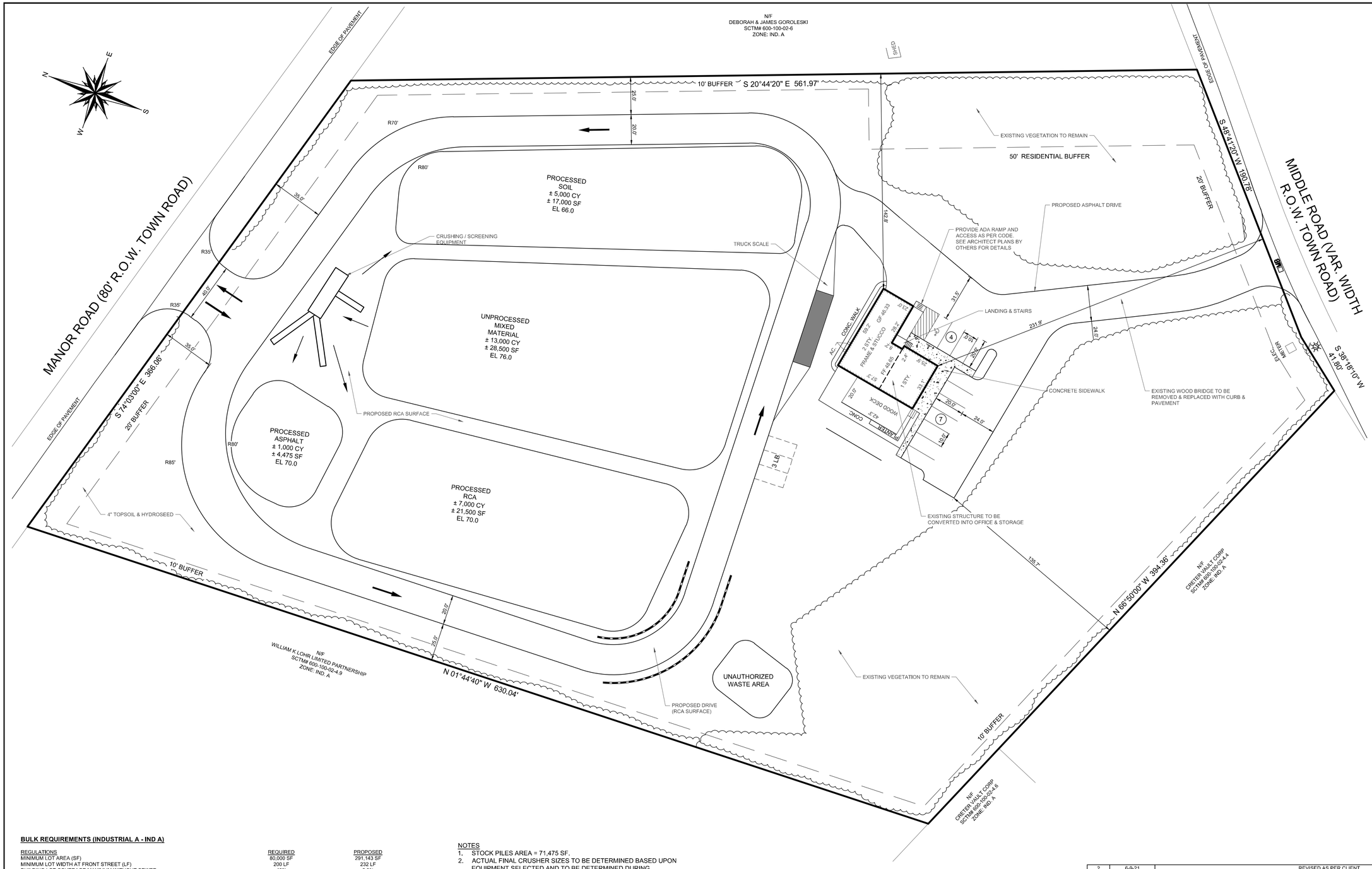
P.E. SEAL AND SIGNATURE

COVER SHEET
FOR
1792 MIDDLE RD
SITUATED AT
CALVERTON
TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK
SCTM DISTRICT 600 SECTION 100 BLOCK 2 LOTS 4.2

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

PROJECT NO.:	17060
DRAWN BY:	JM
CHECKED BY:	TD
DATE:	04/03/2017
SCALE:	AS NOTED
FILE NO.:	-
CADD:	17060SP
DRAWING NO.:	C-001
SHEET NO.:	1 OF 9



BULK REQUIREMENTS (INDUSTRIAL A - IND A)

REGULATIONS	REQUIRED	PROPOSED
MINIMUM LOT AREA (SF)	80,000 SF	291,143 SF
MINIMUM LOT WIDTH AT FRONT STREET (LF)	200 LF	232 LF
BUILDING LOT COVERAGE MAXIMUM WITHOUT SEWER	40%	2.3%
MAXIMUM IMPERVIOUS SURFACE	70%	48.42%
MAXIMUM HEIGHT OF BUILDINGS (LF)	30 FT	2 STY./< 30 FT
FLOOR AREA RATIO MAXIMUM WITHOUT SEWER	0.40	0.02
FRONT YARD BUFFER	20'	35'
REAR / SIDE YARD BUFFER (INDUSTRIAL)	10'	25'
REAR / SIDE YARD BUFFER (RESIDENTIAL)	50'	70'
MINIMUM FRONT YARD DEPTH (LF)	100 LF	231.9'
SIDE YARDS INTERIOR LOTS		
-MINIMUM DEPTH FOR EACH (LF)	50 LF	77.5'/142.8'
-MINIMUM COMBINED DEPTH FOR 2 SIDES (LF)	100 LF	220.3'
MINIMUM REAR YARD DEPTH (LF)	75 LF	N/A

NOTES
1. STOCK PILES AREA = 71,475 SF.
2. ACTUAL FINAL CRUSHER SIZES TO BE DETERMINED BASED UPON EQUIPMENT SELECTED AND TO BE DETERMINED DURING OPERATIONS.

HYDROSEED "B" @ 170#/AC.
(ECOLOGY MIX)
80% RELIANT HARD FESCUE
20% JAMESTOWN II CHEWINGS FESCUE

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OWNER/APPLICANT:
BREEZY HILL GROUP LLC
2186 KIRBY LANE
SYOSSET NY 11791

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

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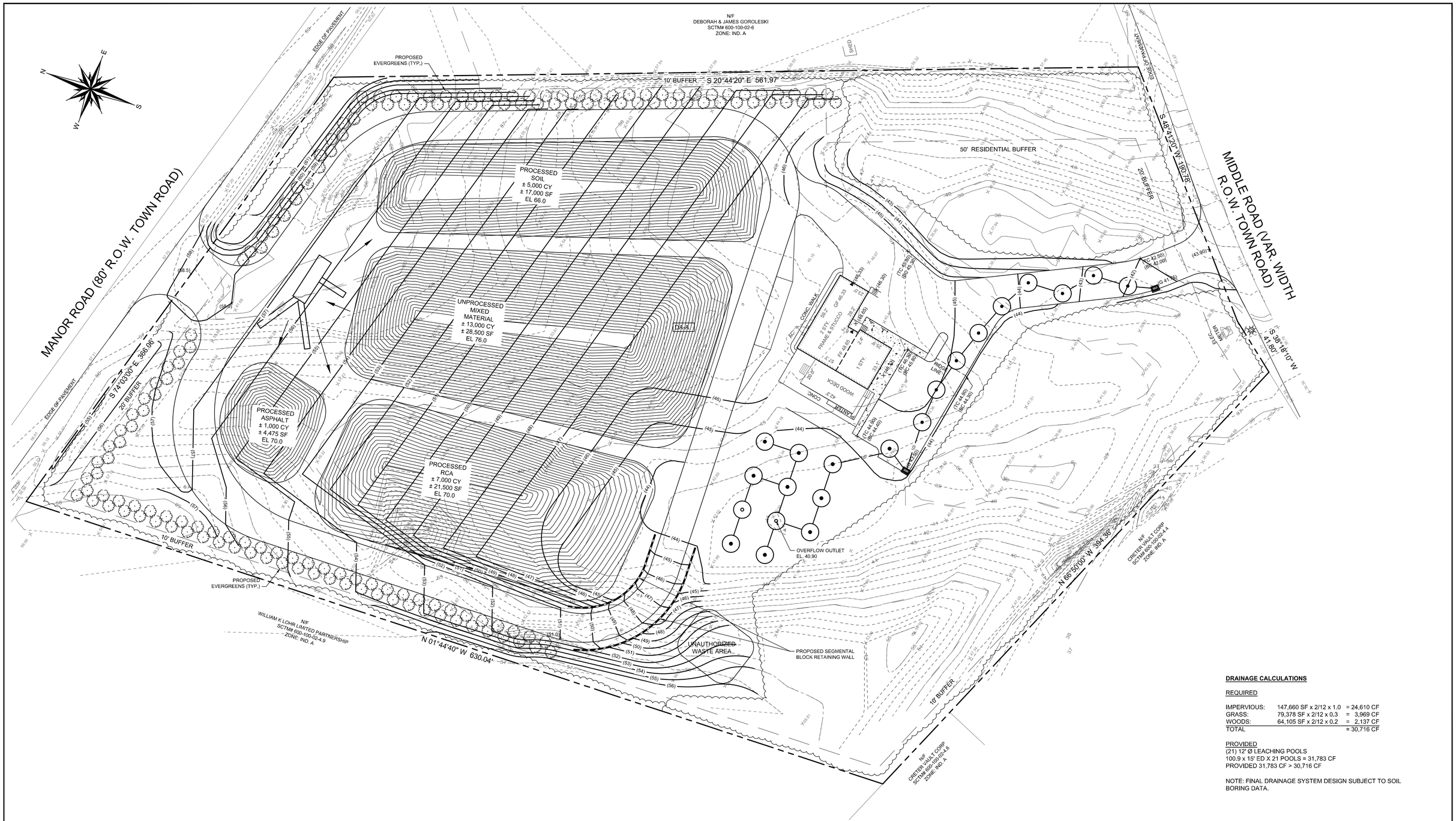
P.E. SEAL AND SIGNATURE

ALIGNMENT PLAN

FOR
1792 MIDDLE RD
SITUATED AT
CALVERTON
TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK
SCTM DISTRICT 600 SECTION 100 BLOCK 2 LOTS 4.2

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

PROJECT NO.:	17060
DRAWN BY:	JM
CHECKED BY:	TD
DATE:	04/03/2017
SCALE:	1" = 30'
FILE NO.:	-
CADD:	17060SP
DRAWING NO.:	C-101
SHEET NO.:	2 OF 9



DRAINAGE CALCULATIONS

REQUIRED

IMPERVIOUS:	147,660 SF x 2/12 x 1.0	= 24,610 CF
GRASS:	79,378 SF x 2/12 x 0.3	= 3,969 CF
WOODS:	64,105 SF x 2/12 x 0.2	= 2,137 CF
TOTAL		= 30,716 CF

PROVIDED
(21) 12' Ø LEACHING POOLS
100.9 x 15' ED X 21 POOLS = 31,783 CF
PROVIDED 31,783 CF > 30,716 CF

NOTE: FINAL DRAINAGE SYSTEM DESIGN SUBJECT TO SOIL BORING DATA.

UNPROCESSED
13,000 CY IMPORTED / UNPROCESSED MATERIAL

PROCESSED
7,000 CY RCA
5,000 CY SOIL
1,000 CY ASPHALT

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

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P.E. SEAL AND SIGNATURE

GRADING & DRAINAGE PLAN

FOR
1792 MIDDLE RD
SITUATED AT
CALVERTON
TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK
SCTM DISTRICT 600 SECTION 100 BLOCK 2 LOTS 4.2

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

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DRAWN BY:	JM
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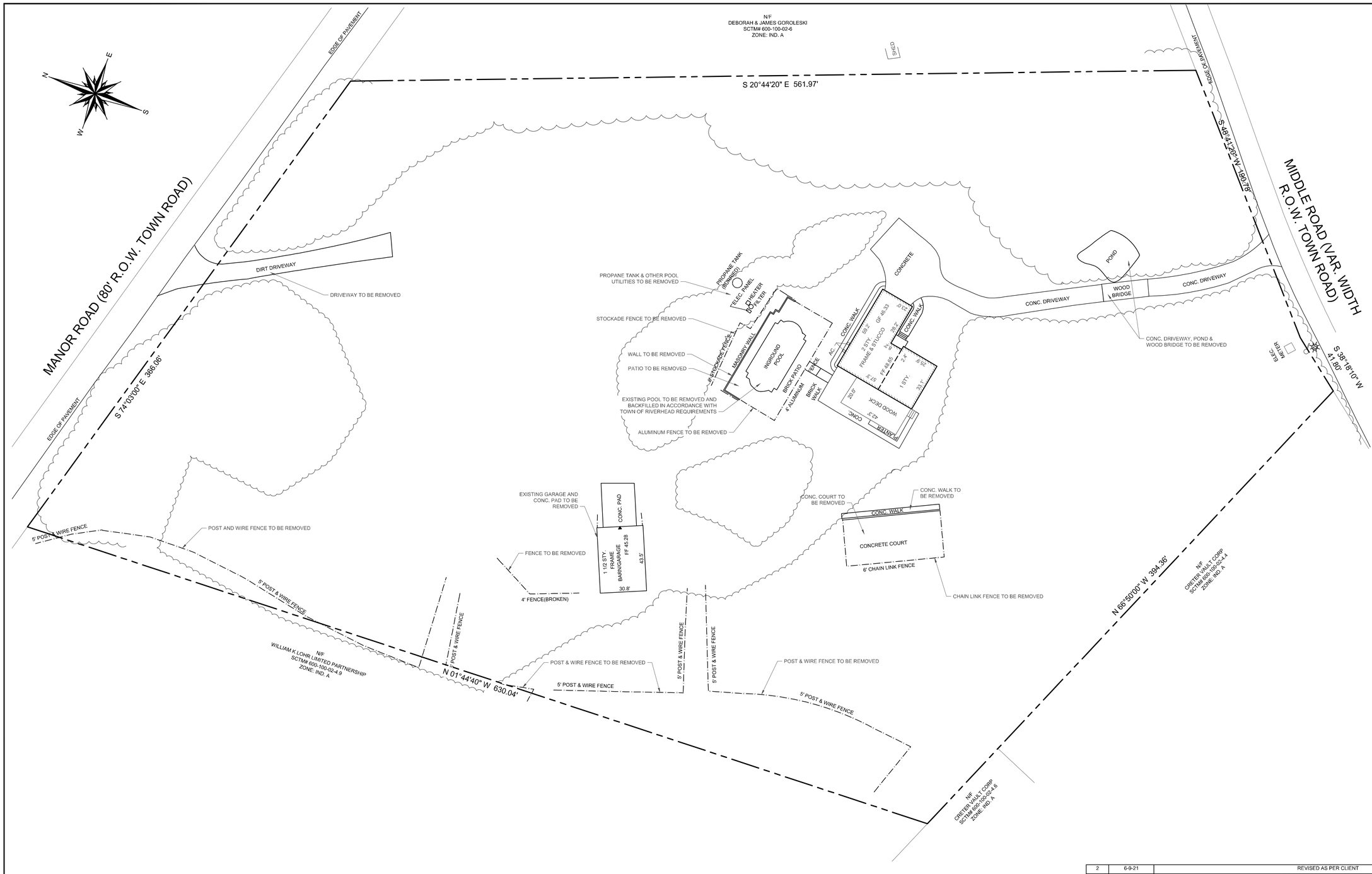
FILE NO.:	-
CADD:	17060SP
DRAWING NO.:	C-103
SHEET NO.:	4 OF 9



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DEMOLITION PLAN

FOR

1792 MIDDLE RD

SITUATED AT

CALVERTON

TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK

SCTM DISTRICT 600 SECTION 100 BLOCK 2 LOTS 4.2

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DRAWING NO.:	C-102
SHEET NO.:	3 OF 9

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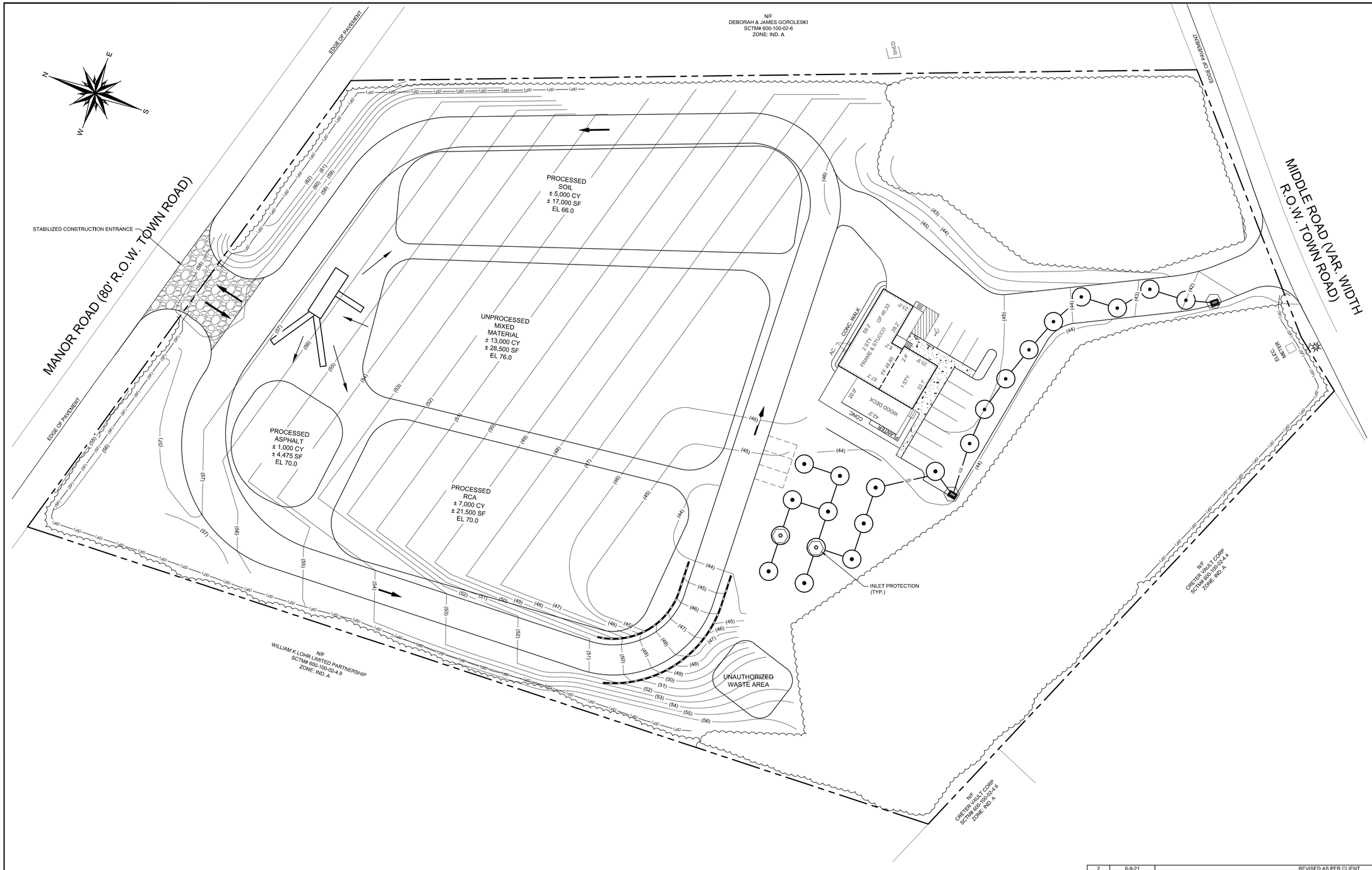

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(IN FEET)

P.E. SEAL AND SIGNATURE

EROSION CONTROL PLAN

FOR

1792 MIDDLE RD

SITUATED AT

CALVERTON

TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK

SCTM DISTRICT 600 SECTION 100 BLOCK 2 LOTS 4.2

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DUST CONTROL NOTES

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

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

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

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

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

CONSTRUCTION SPECIFICATIONS

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

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

RYE GRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE (0.7 LBS./1,000 S.F.)

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

USE WINTER RYE IF SEEDING IN OCTOBER / NOVEMBER.

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

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

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

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

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

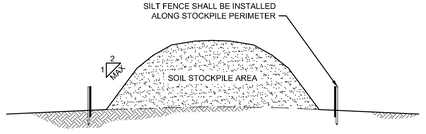
SPRINKLING - THIS SITE MAY BE SPRAYED UNTIL THE SURFACE IS WET. THIS IS ESPECIALLY EFFECTIVE ON HAUL ROADS AND ACCESS ROUTES.

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

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

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

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



SOIL STOCKPILE AREA DETAIL
NOT TO SCALE

NOTE:
SOIL STOCKPILES TO REMAIN INACTIVE FOR 7 DAYS OR GREATER MUST BE STABILIZED WITH TEMPORARY SEEDING OR MULCH (DEPENDING UPON WEATHER CONDITIONS) AND ENCLOSED WITH SILT FENCE.

CONSTRUCTION SPECIFICATIONS FOR TEMPORARY VEGETATIVE COVER

A) RYE GRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE (0.7 LBS/1000 SF)

B) CERTIFIED "AROOSTOOK" WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE (2.5 LBS/SF)
METHOD OF DUST CONTROL. TEMPORARY SEEDING SHALL BE AS FOLLOWS:

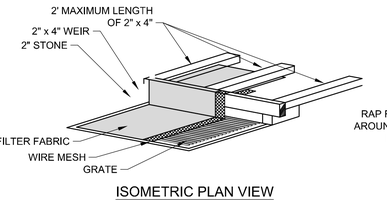
USE WINTER RYE IF SEEDING IN OCTOBER/NOVEMBER. HYDROSEED OR USE OF EROSION CONTROL BLANKETS/ANCHORING MAY BE NECESSARY TO ENSURE GOOD SEED TO SOIL CONTACT ON STEEP SLOPES AND TO MAINTAIN MOISTURE.

MULCH (INCLUDING GRAVEL MULCH) - MULCH OFFERS A FAST EFFECTIVE MEANS OF CONTROLLING DUST AND PROVIDES FOR STABILIZATION IN WINTER MONTHS. APPLICATION OF HAY MULCH SHALL BE 90LBS./1,000 SF WITH UNIFORM APPLICATION OR APPROVED EQUAL. MULCH ANCHORING OR MACHINE TRACKING MAY BE NECESSARY TO ENSURE STABILIZATION.

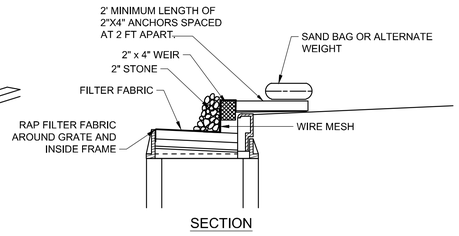
IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW ARTICLE 145, PROFESSIONAL ENGINEERING AND LAND SURVEYING, SECTION 7209 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER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

EROSION CONTROL NOTES

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



ISOMETRIC PLAN VIEW



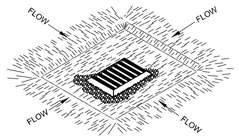
SECTION

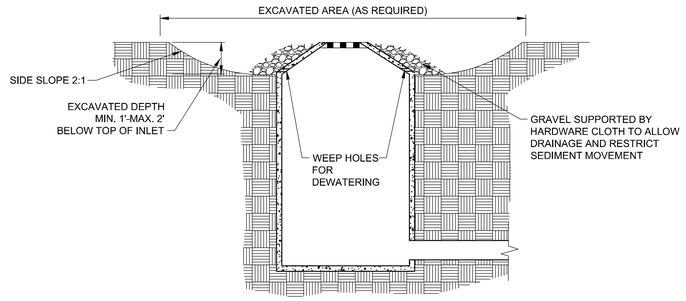
CURB AND GRATE INLET PROTECTION

NOT TO SCALE

STANDARD SYMBOL

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85.
2. WOODEN FRAME SHALL BE CONSTRUCTED OF 2" x 4" CONSTRUCTION GRADE LUMBER.
3. WIRE MESH ACROSS THROAT SHALL BE A CONTINUOUS PIECE 30 INCH MINIMUM WIDTH WITH A LENGTH 4 FEET LONGER THAN THE THROAT. IT SHALL BE SHAPED AND SECURELY NAILED TO A 2" x 4" WEIR.
4. THE WEIR SHALL BE SECURELY NAILED TO 2" x 4" SPACERS 9 INCHES LONG SPACED NO MORE THAN 6 FEET APART.
5. 5. THE ASSEMBLY SHALL BE PLACED AGAINST THE INLET AND SECURED BY 2" x 4" ANCHORS 2 FEET LONG EXTENDING ACROSS THE TOP OF THE INLET AND HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHTS.
6. MAXIMUM DRAINAGE AREA 1 ACRE

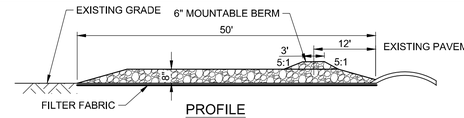




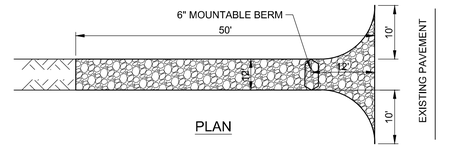
SEDIMENT TRAP DETAIL

NOT TO SCALE

NOTES:
1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL (1/2" TO 3/4") AND HARDWARE CLOTH.
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.
5. MAXIMUM DRAINAGE AREA: 1 ACRE.



PROFILE



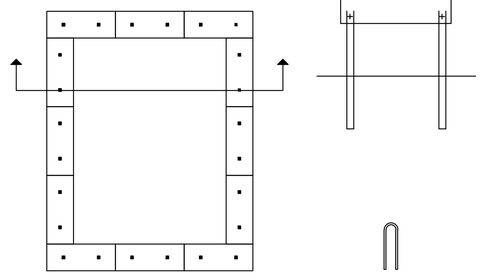
PLAN

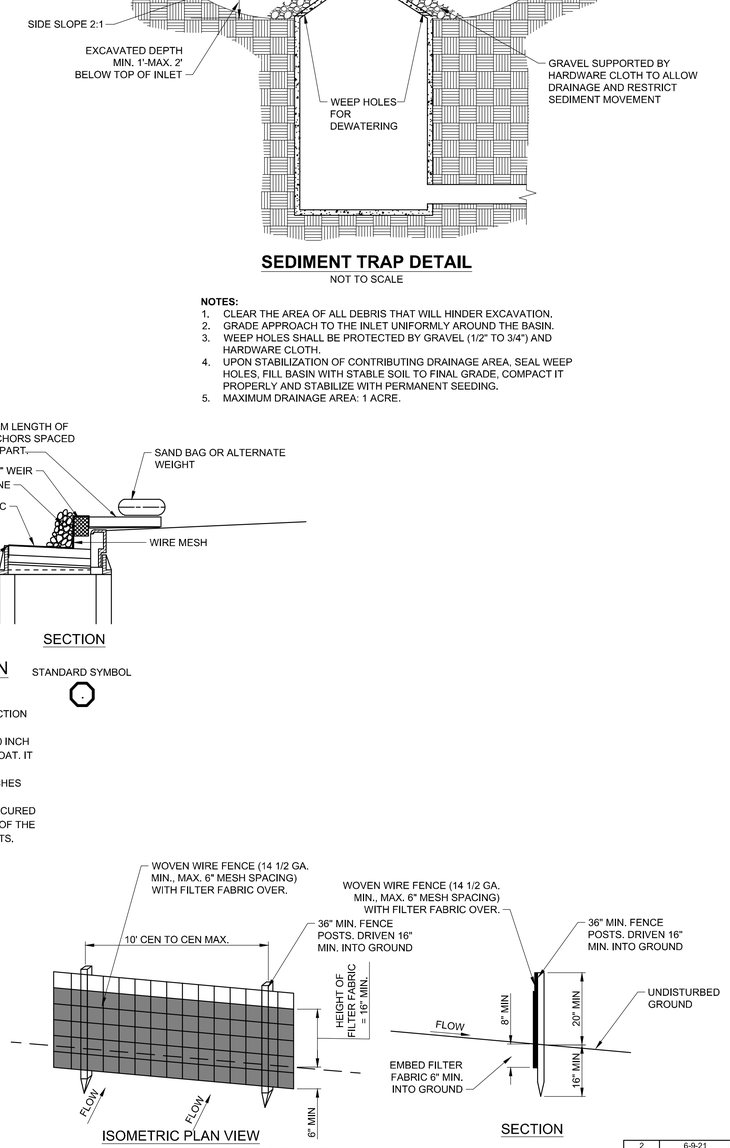
STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

STANDARD SYMBOL

NOTES
1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET .
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - THIRTY (12') FOOT MINIMUM FOR ONE WAY TRAFFIC, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED,DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS- OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.





ISOMETRIC PLAN VIEW

SECTION

SILT FENCE DETAIL

NOT TO SCALE

STANDARD SYMBOL

——— (SF) ———

NOTES
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD.
6. FENCE: WOVEN WIRE, 14 1/2 GA. 6" MAX.MESH OPENING.
7. FILTER CLOTH SHALL BE A WOVEN GEOTEXTILE COMPOSED OF POLYPROPYLENE CONFORMING TO AASHTO M288.

TEMPORARY STRAW BALE CONCRETE WASHOUT DETAIL

NOT TO SCALE

STANDARD SYMBOL

NOTES:
1. WASHOUT AREA SHALL BE A MINIMUM OF 50' FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES AND WATER COURSES.
2. ONCE CONCRETE WASTES ARE WASHED INTO DESIGNATED AREAS AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, COUNTY, AND STATE REGULATIONS.
3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 20' OF TEMPORARY WASHOUT FACILITY.

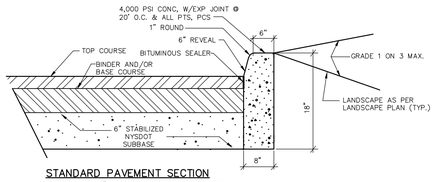
NO.	DATE:	REVISIONS:	BY:
2	6-9-21	REVISED AS PER CLIENT	RF
1	3-25-20	REVISED AS PER TOWN COMMENTS	RF

P.E. SEAL AND SIGNATURE

EROSION CONTROL DETAILS
FOR
1792 MIDDLE RD
SITUATED AT
CALVERTON
TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK
SCTM DISTRICT 600 SECTION 100 BLOCK 2 LOTS 4.2

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

PROJECT NO.:	17060
DRAWN BY:	JM
CHECKED BY:	TD
DATE:	04/03/2017
SCALE:	AS NOTED
FILE NO.:	-
CADD:	17060SP
DRAWING NO.:	C-501
SHEET NO.:	6 OF 9



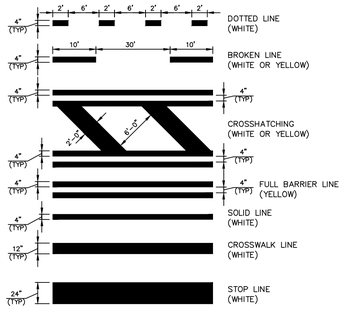
STANDARD PAVEMENT SECTION

TOP COURSE: 2" N.Y.S.D.O.T. TYPE 6-F TOP ASPHALT WEARING COURSE
BINDER: 2" N.Y.S.D.O.T. TYPE 3 DENSE BINDER COURSE
6" SUBBASE N.Y.S.D.O.T. TYPE 1011 MATERIAL "C"

ON-SITE CONC. CURB & PAVEMENT DETAIL

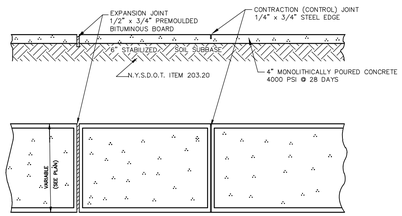
NOT TO SCALE

NOTES:
1) PROVIDE TACK COAT BETWEEN BINDER COURSE AND TOP COURSE AT A CONTROLLED RATE OF 0.05 TO 2.0 GALLONS PER SQUARE YARD WITH UNIFORM PRESSURE.
2) WORK TO BE IN ACCORDANCE WITH TOWN OF BROOKHAVEN STANDARDS AND SPECIFICATIONS.



PAVEMENT MARKING LEGEND

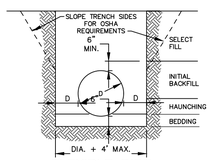
NOT TO SCALE



ON-SITE CONCRETE SIDEWALK DETAIL

NOT TO SCALE

NOTE:
CONTROL JOINTS EVERY 5'-0" (MAX)
EXPANSION JOINTS EVERY 20' (MAX.)
OR AS DIRECTED BY ENGINEER



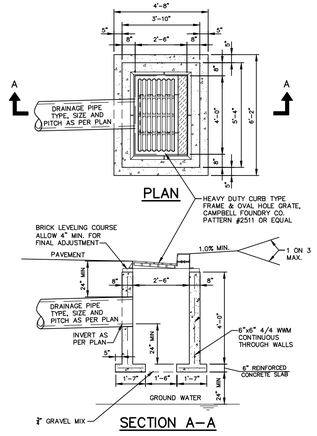
FLEXIBLE PIPE

INCLUDES CORRUGATED METAL PIPE, CORRUGATED POLYETHELENE PIPE, AND/OR CHLORIDE PIPE

1. BEDDING SHALL BE COMPACTED PROCESSED SAND & GRAVEL AND SHALL BE SHAPED TO THE BOTTOM OF THE PIPE
2. HAUNCHING AND INITIAL BACKFILL MATERIAL SHALL BE COMPACTED. MATERIAL SHALL BE CLASS I OR II (REFER. ASTM D2321) GRANULAR TO 95% STANDARD PROCTOR
3. SELECT FILL PLACEMENT AND COMPACTION SAME AS FOR RCP

TRENCH AND BEDDING DETAILS

NOT TO SCALE

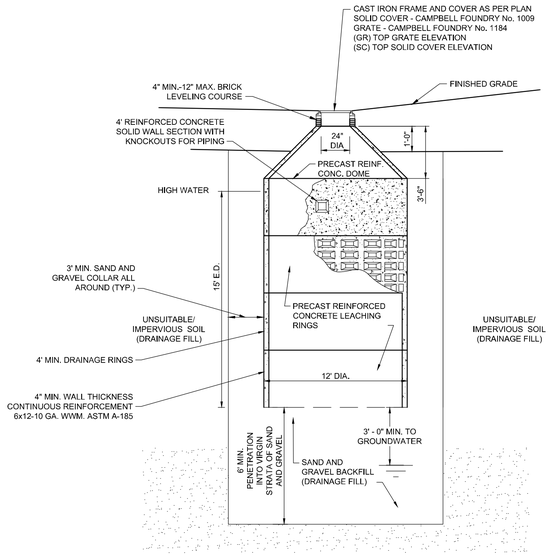


CATCH BASIN DETAIL

TYPE 1 (T-1)

NOT TO SCALE

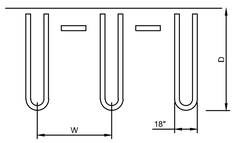
NOTES:
1. ALL CONCRETE TO BE 4,000 P.S.I. @ 28 DAYS
2. PROVIDE PIPE OPENINGS AS REQUIRED
3. ADDITIONAL INLETS TO BE SPACED 5' APART
4. CARE SHALL BE TAKEN WHEN INSTALLING DRAINAGE STRUCTURES WITHIN THE DESIGNATED LANDFILL AREAS. ALL EXCAVATED CONTAMINATED SOILS SHALL BE BURIED AT AVAILABLE DESIGNATED LANDFILL AREAS IN ACCORDANCE WITH THE SOIL MANAGEMENT PLAN PREPARED BY N&P DATED DECEMBER 29, 2014 AND SOIL MANAGEMENT PLAN REPORT PREPARED BY NP&V DATED DECEMBER 29, 2014.

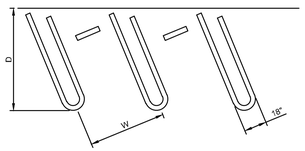


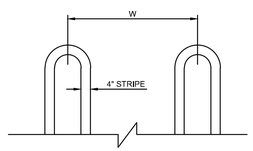
DOME TOP DRAINAGE LEACHING POOL DETAIL

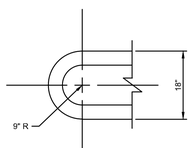
NOT TO SCALE

NOTES:
1. ALL DRAINAGE PIPES MUST BE PROVIDED WITH A MINIMUM 2'-0" OF COVER.
2. ANY UNSUITABLE MATERIAL UNDER THE LEACHING BASIN SHALL BE EXCAVATED AND REMOVED UNTIL A VIRGIN STRATA OF SAND AND GRAVEL IS ENCOUNTERED. AN ADDITIONAL 6' IS THEN TO BE EXCAVATED INTO THE VIRGIN SAND AND GRAVEL. ALL BACKFILL MUST BE CLEAN AND ACCEPTABLE MATERIAL PLACED UNDER THE SUPERVISION OF THE TOWN ENGINEER. PROVIDE 2" OF CLEAN SAND AND GRAVEL INSIDE THE BASE OF THE BASIN.
3. STEEL REINFORCED IN TOP SLAB # 5 BARS 6" EACH WAY.
4. FILTER FABRIC SHALL BE MIRAFI 160N OR APPROVED EQUAL. (MAXIMUM APPARENT OPENING SIZE (AOS)SHALL BE 0.212 MM AS PER ASTM D4751).
5. CONCRETE: 4,000 PSI AT 28 DAYS, WWF A-185, REBAR: ASTM A-615, GRADE 60, TOP DOME DESIGNED FOR AASHTO H-20 LOADING.
6. WHEN GROUND WATER IS WITHIN 8' - 0" OF TOP CASTING, THE TOP SECTION SHALL BE LEACHING AND WRAPPED WITH FILTER FABRIC.
7. MAINTAIN 20' SETBACK FROM SANITARY LEACHING POOL.
8. MAINTAIN 10' SETBACK FROM SANITARY SEWER PIPE.
9. MAINTAIN SCDPW SETBACK REQUIREMENTS FROM ALL UTILITIES.
10. MAINTAIN 10' SETBACK FROM BUILDING FOUNDATION.
11. SANITARY RINGS MAY NOT BE USED.
12. ALL PRECAST CONCRETE STRUCTURES MUST MEET ACI CODE AND SPECIFICATIONS.
13. ALL STRUCTURES MUST BE MANUFACTURED AT AN ACI CERTIFIED PLANT, A COPY OF CERTIFICATION MUST BE ON FILE WITH THE TOWN.









NOTE: 4" STRIPE APPROXIMATELY 18" APART WITH ROUNDED OR SQUARED ENDS

STALL DOUBLE STRIPING DETAIL

NOT TO SCALE

NO.	DATE:	REVISIONS:	BY:
2	6-9-21	REVISED AS PER CLIENT	RF
1	3-25-20	REVISED AS PER TOWN COMMENTS	RF

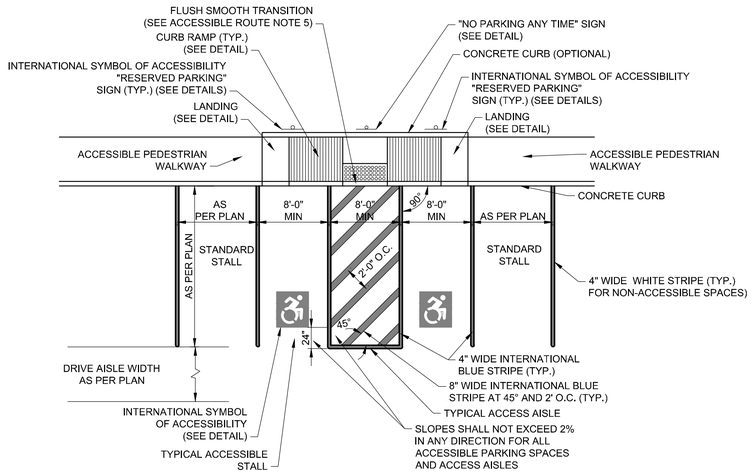
P.E. SEAL AND SIGNATURE

SITE DETAILS
FOR
1792 MIDDLE RD
SITUATED AT
CALVERTON
TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK
SCTM DISTRICT 600 SECTION 100 BLOCK 2 LOTS 4.2

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

PROJECT NO.:	17060
DRAWN BY:	JM
CHECKED BY:	TD
DATE:	04/03/2017
SCALE:	AS NOTED
FILE NO.:	-
CADD:	17060SP
DRAWING NO.:	C-502
SHEET NO.:	7 OF 9

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

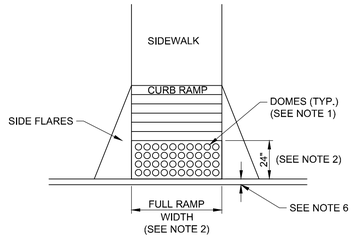


TYPICAL ACCESSIBLE PARKING LAYOUT

NOT TO SCALE

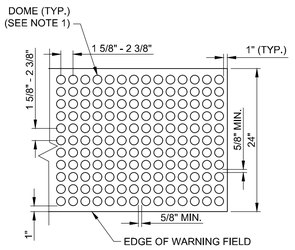
NOTES:

1. THE ABOVE DETAIL IS INTENDED TO PROVIDE A TYPICAL ACCESSIBLE PARKING LAYOUT. REFER TO PLAN FOR SPECIFIC LAYOUT OF ACCESSIBLE PARKING, ACCESS AISLE, CURB RAMP TYPES AND LOCATIONS, AND ACCESSIBLE ROUTE.
2. ALL PAVEMENT MARKINGS SHALL RECEIVE TWO COATS OF AN A APPROVED PAINT AND SHALL BE APPLIED TO A MINIMUM WET FILM THICKNESS OF 15 MILS.
3. PAVEMENT MARKINGS SHALL BE PAINTED AS REQUIRED BY THE LOCAL CODE OR SPECIFIED BY THE OWNER. DOUBLE LINE STRIPPING IS REQUIRED WITHIN THE TOWNS OF OYSTER BAY AND HEMPSTEAD.
4. THE PAVEMENT MARKINGS SHALL BE MAINTAINED PERMANENTLY ON THE PAVEMENT SURFACE IN THE LAYOUT SHOWN ON THE APPROVED PLAN.
5. THE WIDTH OF THE STALLS SHOWN SHALL BE MEASURED FROM THE CENTERLINE OF THE MARKINGS.
6. INTERNATIONAL SYMBOL OF ACCESSIBLITY "RESERVED PARKING" SIGNAGE MAY BE PLACED 2 FOOT BEHIND THE FACE OF CURB IF THE REQUIRED CLEAR SPACE BEHIND THE SIGN IS PROVIDED FOR THE ACCESSIBLE ROUTE. (SEE ACCESSIBLE ROUTE NOTES).



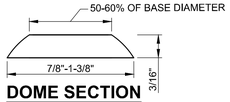
DETECTABLE WARNING AT CURB DETAIL

NOT TO SCALE



DOME SPACING

NOT TO SCALE



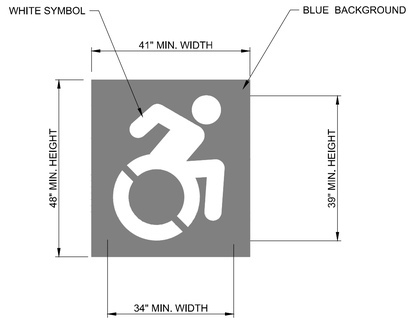
DOME SECTION

DETECTABLE WARNING DETAILS

NOT TO SCALE

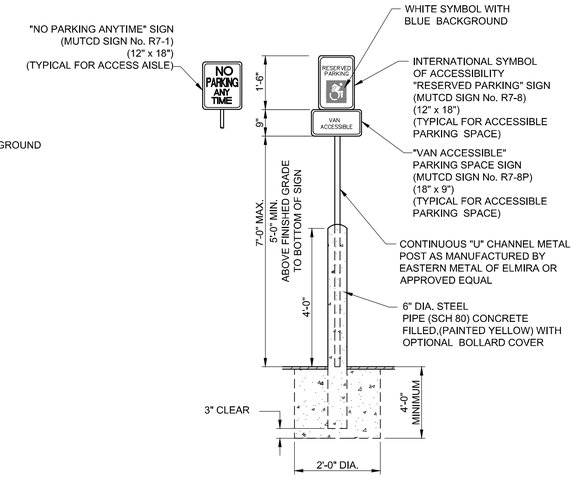
DETECTABLE WARNING NOTES:

1. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING FIELD (THE DOMES AND THE ENTIRE 24" LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.
2. THE SIZE OF THE DETECTABLE WARNING FIELD SHALL BE 24" IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE, EXCLUSIVE OF SIDE FLARES.
3. THE ROWS OF DOMES SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP LANDING OR CURB RAMP AND THE STREET.
4. WHERE DOMES ARE ARRAYED RADIALLY THEY MAY DIFFER IN DOME DIAMETER AND CENTER-TO-CENTER SPACING WITHIN THE RANGES SHOWN IN THE DETAILS.
5. THE DETECTABLE WARNING FIELD COLOR SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.
6. DETECTABLE WARNINGS SHALL BE LOCATED SO THAT THE EDGE (OR ON CURB RAMP TYPE D AT LEAST ONE CORNER) OF THE WARNING FIELD NEAREST TO THE ROADWAY IS 5" TO 9" FROM THE FRONT OF THE CURB OR THE EDGE OF ROADWAY.



INTERNATIONAL SYMBOL OF ACCESSIBILITY PAVEMENT MARKING DETAIL

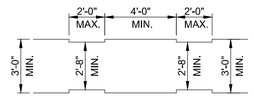
NOT TO SCALE



ACCESSIBLE PARKING SPACE AND ACCESS AISLE SIGN WITH BOLLARD DETAIL

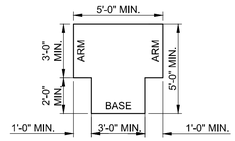
NOT TO SCALE

NOTE:
SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED WITH BOLLARD PROTECTION.



ACCESSIBLE ROUTE CLEAR WIDTH DETAIL

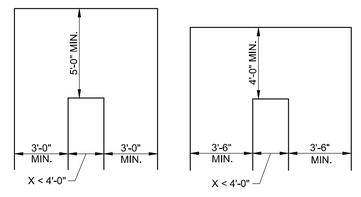
NOT TO SCALE



180 DEGREE TURN

T-SHAPED TURNING SPACE DETAIL

NOT TO SCALE



180 DEGREE TURN

180 DEGREE TURN

ACCESSIBLE ROUTE CLEAR WIDTH TURN DETAIL

NOT TO SCALE

NO.	DATE:	REVISIONS:	BY:
2	6-9-21	REVISED AS PER CLIENT	RF
1	3-25-20	REVISED AS PER TOWN COMMENTS	RF

P.E. SEAL AND SIGNATURE

ACCESSIBILITY DETAILS 1
FOR
1792 MIDDLE RD
SITUATED AT
CALVERTON
TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK
SCTM DISTRICT 600 SECTION 100 BLOCK 2 LOTS 4.2

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PROJECT NO.:	17060
DRAWN BY:	JM
CHECKED BY:	TD
DATE:	04/03/2017
SCALE:	AS NOTED
FILE NO.:	-
CADD:	17060SP
DRAWING NO.:	C-503
SHEET NO.:	8 OF 9

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

ACCESSIBILITY NOTES:

GENERAL NOTES:

1. SPECIAL ATTENTION SHALL BE GIVEN TO COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN (ADAAG), BUILDING CODE OF NEW YORK STATE (BCNYS), AND APPLICABLE LOCAL LAWS AND REGULATIONS, LATEST EDITIONS.
2. IT IS ESSENTIAL THAT CONTRACTORS ARE AWARE OF THE SITE ACCESSIBILITY REQUIREMENTS. NELSON & POPE HAS DEVELOPED THESE NOTES AND DETAILS TO ASSURE THAT CONTRACTORS ARE AWARE OF THE REQUIREMENTS AT THE POINT IN TIME WHEN THEY ARE BIDDING THE PROJECT. IN ADDITION, NELSON & POPE HAS MADE A POINT IN THESE NOTES AND DETAILS, AS WELL AS IN OUR DRAWINGS, TO PROVIDE SLOPES / GRADES AND DIMENSIONS THAT COMPLY WITH THE ADAAG, BCNYS AND APPLICABLE LOCAL LAWS AND REGULATIONS, LATEST EDITIONS. IF THESE SLOPES / GRADES AND DIMENSIONS ARE NOT ACHIEVABLE, THE CONTRACTOR IS REQUIRED TO CONTACT THE OWNER IMMEDIATELY AND BEFORE MOVING FORWARD WITH THE WORK.
3. THE CONTRACTOR SHALL NOTIFY NELSON & POPE IMMEDIATELY OF ANY CONFLICT BETWEEN THESE NOTES AND DETAILS AND OTHER PROJECT DRAWINGS, WHETHER BY NELSON & POPE OR OTHERS. THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK FOR WHICH THE ALLEGED CONFLICT HAS BEEN DISCOVERED UNTIL SUCH ALLEGED CONFLICT HAS BEEN RESOLVED. NO CLAIM SHALL BE MADE BY THE CONTRACTOR FOR DELAY DAMAGES AS A RESULT OF RESOLUTION OF ANY SUCH CONFLICT(S).
4. THESE ACCESSIBILITY NOTES AND DETAILS ARE INTENDED TO DEPICT SLOPE AND DIMENSIONAL REQUIREMENTS ONLY. REFER TO SIDEWALK, CURBING, AND PAVEMENT DETAILS FOR ADDITIONAL INFORMATION.

ACCESSIBLE ROUTE NOTES:

1. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS OR SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY THEY SERVE.
2. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE.
3. WALKING SURFACES SHALL HAVE A MAXIMUM RUNNING SLOPE OF 5.0% AND A MAXIMUM CROSS SLOPE OF 2.0%.
4. ANY WALKING SURFACE WITH A RUNNING SLOPE GREATER THAN 5.0% IS A RAMP AND SHALL COMPLY WITH THE GUIDELINES FOR RAMPS OR CURB RAMPS.
5. TRANSITIONS BETWEEN RAMPS, WALKS, LANDINGS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES (1/4 INCH MAXIMUM VERTICAL CHANGE IN LEVEL).
6. FLOOR SURFACES SHALL BE STABLE, FIRM AND SLIP RESISTANT.
7. THE MINIMUM CLEAR WIDTH SHALL BE THIRTY-TWO (32) INCHES FOR A ROUTE SEGMENT LENGTH LESS THAN TWENTY-FOUR (24) INCHES. CONSECUTIVE SEGMENTS OF THIRTY-TWO (32) INCHES IN WIDTH MUST BE SEPARATED BY A ROUTE SEGMENT FORTY-EIGHT (48) INCHES MINIMUM IN LENGTH AND THIRTY-SIX (36) INCHES MINIMUM IN WIDTH.
8. THE MINIMUM CLEAR WIDTH SHALL BE THIRTY-SIX (36) INCHES FOR A ROUTE SEGMENT LENGTH GREATER THAN TWENTY-FOUR (24) INCHES.
9. WHERE AN ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN OBJECT THAT IS LESS THAN FORTY-EIGHT (48) INCHES IN WIDTH, CLEAR WIDTH SHALL BE FORTY-TWO (42) INCHES MINIMUM APPROACHING THE TURN, FORTY-EIGHT (48) INCHES MINIMUM DURING THE TURN, AND FORTY-TWO (42) INCHES MINIMUM LEAVING THE TURN. THE CLEAR WIDTH APPROACHING AND LEAVING THE TURN MAY BE THIRTY-SIX (36) INCHES MINIMUM WHEN THE CLEAR WIDTH AT THE TURN IS SIXTY (60) INCHES MINIMUM.
10. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN SIXTY (60) INCHES SHALL PROVIDE PASSING SPACES AT INTERVALS OF TWO HUNDRED (200) FEET MAXIMUM. PASSING SPACES SHALL BE EITHER A SIXTY (60) INCH MINIMUM BY SIXTY (60) INCH MINIMUM SPACE; OR AN INTERSECTION OF TWO (2) WALKING SURFACES THAT PROVIDE A COMPLIANT T-SHAPED TURNING SPACE, PROVIDED THE BASE AND ARMS OF THE T-SHAPED SPACE EXTEND FORTY-EIGHT (48) INCHES MINIMUM BEYOND THE INTERSECTION.
11. DOORS, DOORWAYS AND GATES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH ADAAG AND BCNYS REQUIREMENTS.
12. DIRECTIONAL SIGNAGE INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE BUILDING ENTRANCE SHALL BE PROVIDED AT INACCESSIBLE BUILDING ENTRANCES.
14. WHERE POSSIBLE, DRAINAGE INLETS SHALL NOT BE LOCATED ON AN ACCESSIBLE ROUTE. IN THE EVENT THAT A DRAINAGE INLET MUST BE LOCATED ON AN ACCESSIBLE ROUTE, THE GRATE SHALL COMPLY WITH ADAAG REQUIREMENTS.

RAMP NOTES:

1. ANY PART OF AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 5% SHALL BE CONSIDERED A RAMP.
2. THE MAXIMUM RUNNING SLOPE FOR A RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
3. THE CLEAR WIDTH OF A RAMP RUN SHALL BE THIRTY-SIX (36) INCHES MINIMUM. WHERE HANDRAILS ARE PROVIDED ON THE RAMP RUN, THE CLEAR WIDTH SHALL BE MEASURED BETWEEN THE HANDRAILS.
4. THE RISE FOR ANY RAMP RUN SHALL BE THIRTY (30) INCHES MAXIMUM.
5. LANDINGS SHALL BE PROVIDED AT THE TOP AND BOTTOM OF RAMPS. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2.0% IN ANY DIRECTION. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING. THE LANDING CLEAR LENGTH SHALL BE SIXTY (60) INCHES LONG MINIMUM. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING OF SIXTY (60) INCHES BY SIXTY (60) INCHES MINIMUM.
6. RAMP RUNS WITH A RISE GREATER THAN SIX (6) INCHES OR A HORIZONTAL PROJECTION GREATER THAN SEVENTY-TWO (72) INCHES SHALL HAVE HANDRAILS ON BOTH SIDES COMPLYING WITH ADAAG AND BCNYS REQUIREMENTS.
7. FLOOR SURFACES OF RAMPS AND LANDINGS SHALL BE STABLE, FIRM AND SLIP RESISTANT.
8. EDGE PROTECTION COMPLYING WITH ADAAG AND BCNYS REQUIREMENTS SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND ON EACH SIDE OF RAMP LANDINGS.
9. WHERE DOORWAYS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED BY ADAAG AND BCNYS REQUIREMENTS SHALL BE PERMITTED TO OVERLAP THE REQUIRED LANDING AREA. WHERE DOORS THAT ARE SUBJECT TO LOCKING ARE ADJACENT TO A RAMP LANDING, LANDINGS SHALL BE SIZED TO PROVIDE A COMPLIANT TURNING SPACE.

CURB RAMP NOTES:

1. THE MAXIMUM RUNNING SLOPE OF A CURB RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
2. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 5%. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS AND STREETS SHALL BE AT THE SAME LEVEL.
3. THE CLEAR WIDTH OF A CURB RAMP SHALL BE SIXTY (60) INCHES MINIMUM, EXCLUSIVE OF FLARED SIDES, IF PROVIDED.
4. LANDINGS SHALL BE PROVIDED AT THE TOP OF CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE THIRTY-SIX (36) INCHES MINIMUM. THE CLEAR WIDTH OF THE LANDING SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2% IN ANY DIRECTION.
5. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, OR WHERE IT IS NOT PROTECTED BY HANDRAILS OR GUARDRAILS, IT SHALL HAVE FLARED SIDES.
6. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT EXCEED 10%. IF THE CLEAR LENGTH OF THE LANDING IS LESS THAN FORTY-EIGHT (48) INCHES THAN THE SLOPE OF THE FLARED SIDES SHALL NOT EXCEED 8.33%.
7. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES OR PARKING ACCESS AISLES. CURBS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
8. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES.
9. CURB RAMPS SHALL HAVE A TWENTY-FOUR (24) INCH DEEP DETECTABLE WARNING COMPLYING WITH ADAAG, EXTENDING THE FULL WIDTH OF THE RAMP. REFER TO DETECTABLE WARNING DETAILS AND NOTES FOR PLACEMENT, ORIENTATION AND NOTES.
10. FLOOR SURFACES OF CURB RAMPS SHALL BE DEEP GROOVED, ½ INCH WIDE BY ¼ INCH DEEP, ONE (1) INCH CENTERS TRANSVERSE TO THE RAMP.
11. WHERE PROVIDED, STOP LINES SHALL BE LOCATED IN ADVANCE OF CURB RAMP.
12. WHERE PROVIDED, PEDESTRIAN ACTIVATED SIGNALS SHALL BE LOCATED ADJACENT TO THE SIDEWALK AND NOT ON THE SIDEWALK.
13. WHERE PROVIDED, DRAINAGE INLETS SHALL BE LOCATED UPSTREAM OF CURB RAMPS AND NOT IN THE RAMP AREA.
14. CURB RAMP TYPE AND LOCATION ARE PER PLAN.

PARKING SPACE NOTES:

1. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTES OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE.
2. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL BE AT LEAST NINETY-SIX (96) INCHES WIDE. WHERE PARKING SPACES AND ACCESS AISLES ARE MARKED WITH LINES, THE WIDTH MEASUREMENTS SHALL BE MADE FROM CENTERLINE OF THE MARKINGS. WHERE PARKING SPACES OR ACCESS AISLES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLES, MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESS AISLE.
3. PARKING ACCESS AISLES SHALL BE PART OF AN ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE AND SHALL COMPLY WITH PROVISIONS FOR ACCESSIBLE ROUTES. MARKED CROSSINGS SHALL BE PROVIDED WHERE THE ACCESSIBLE ROUTE MUST CROSS VEHICULAR TRAFFIC LANES. WHERE POSSIBLE, IT IS PREFERABLE THAT THE ACCESSIBLE ROUTE NOT PASS BEHIND PARKED VEHICLES.
4. TWO (2) ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE.
5. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACE THEY SERVE.
6. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.
7. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
8. FLOOR SURFACES OF PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
9. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS.
10. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE.
11. PARKING SPACES FOR VANS AND ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF NINETY-EIGHT (98) INCHES MINIMUM. SIGNS SHALL BE PROVIDED AT ENTRANCES TO PARKING FACILITIES INFORMING DRIVERS OF CLEARANCES AND THE LOCATION OF VAN ACCESSIBLE PARKING SPACES.
12. EACH ACCESSIBLE PARKING SPACE SHALL BE PROVIDED WITH SIGNAGE DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. EACH ACCESS AISLE SHALL BE PROVIDED WITH SIGNAGE READING "NO PARKING ANYTIME". SIGNS SHALL BE INSTALLED AT A CLEAR HEIGHT OF BETWEEN SIXTY (60) INCHES AND EIGHTY-FOUR (84) INCHES ABOVE GRADE AND SHALL NOT INTERFERE WITH AN ACCESSIBLE ROUTE FROM AN ACCESS AISLE. SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED WITH BOLLARD PROTECTION.
13. ACCESSIBLE PARKING SPACE, ACCESS AISLE STRIPING, AND INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE PAINTED BLUE.

PASSENGER LOADING ZONE NOTES:

1. PASSENGER LOADING ZONES SHALL PROVIDE VEHICULAR PULL-UP SPACE NINETY-SIX (96) INCHES WIDE MINIMUM AND TWENTY (20) FEET LONG MINIMUM.
2. PASSENGER LOADING ZONES SHALL PROVIDE A CLEARLY MARKED ACCESS AISLE THAT IS SIXTY (60) INCHES WIDE MINIMUM AND EXTENDS THE FULL LENGTH OF THE VEHICLE PULL-UP SPACE THEY SERVE.
3. ACCESS AISLE SHALL ADJOIN AN ACCESSIBLE ROUTE AND NOT OVERLAP THE VEHICULAR WAY.
4. VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL BE LEVEL WITH SURFACE SLOPES NO EXCEEDING 2.0% IN ALL DIRECTIONS. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
5. FLOOR SURFACES OF VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT.
6. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SERVING THEM, SHALL PROVIDE A VERTICAL CLEARANCE OF ONE HUNDRED FOURTEEN (114) INCHES MINIMUM.

ACCESSIBLE ENTRANCE NOTES:

1. ACCESSIBLE ENTRANCES SHALL BE PROVIDED AS REQUIRED BY ADAAG AND BCNYS REQUIREMENTS.
2. ENTRANCE DOORS, DOORWAYS AND GATES SHALL COMPLY WITH ADAAG AND BCNYS REQUIREMENTS AND SHALL BE ON AN ACCESSIBLE ROUTE.

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P.E. SEAL AND SIGNATURE

ACCESSIBILITY DETAILS 2

FOR

1792 MIDDLE RD

SITUATED AT

CALVERTON

TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK

SCTM DISTRICT 600 SECTION 100 BLOCK 2 LOTS 4.2

NELSON+POPE
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